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This catalog is a complete guide to studying at the University of Alaska Fairbanks. The catalog includes information on admission and graduation requirements, the academic calendar, and program and course listings for certificate, associate, bachelor's, master's and PhD degree students.

The catalog is updated each academic year to reflect changes in academic rules and degree requirements. If you are looking for a different academic year than the one listed above, view our archived catalogs (http://www.uaf.edu/catalog/archives.html).
Academic Calendar

Fairbanks Campus Academic Calendar 2020-2021

This academic calendar lists important dates and deadlines for the Fairbanks campus of the University of Alaska Fairbanks. For academic calendar information for UAF’s community campuses, contact the campuses directly or visit the Campuses webpage (http://uaf.edu/uaf/about/campuses/).

View the 2019-2020 academic calendar (p. 12).

## AUGUSTmester and Fall Semester 2020

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<th>Event</th>
<th>Date</th>
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<tbody>
<tr>
<td>Deadline to apply for admission for fall semester (international students)</td>
<td>Sunday, March 1</td>
</tr>
<tr>
<td>Fall 2020 course list available at UAOnline</td>
<td>Monday, March 23</td>
</tr>
<tr>
<td>Begin AUGUSTmester and fall 2020 priority registration (UAF degree students)</td>
<td>Monday, April 6</td>
</tr>
<tr>
<td>Begin AUGUSTmester and fall 2020 open registration (all UAF, UAA and UAS students, including nondegree students)</td>
<td>Monday, April 6</td>
</tr>
<tr>
<td>Deadline to apply for admission for fall semester (UA Scholars)</td>
<td>Friday, May 1</td>
</tr>
<tr>
<td>Deadline to apply for admission for fall semester (most graduate students; some programs have different deadlines)</td>
<td>Monday, June 1</td>
</tr>
<tr>
<td>Deadline to apply for admission for fall semester (undergraduate students)</td>
<td>Monday, June 15</td>
</tr>
<tr>
<td>AUGUSTmester courses begin; attendance required</td>
<td>Monday, Aug. 10</td>
</tr>
<tr>
<td>Deadline for adding AUGUSTmester classes; 5 p.m. in person, midnight at UAOnline</td>
<td>Monday, Aug. 10</td>
</tr>
<tr>
<td>Deadline for AUGUSTmester tuition and fee payment and refunds; 5 p.m. in person, midnight at UAOnline</td>
<td>Monday, Aug. 10</td>
</tr>
<tr>
<td>Late payment fees begin for AUGUSTmester</td>
<td>Tuesday, Aug. 11</td>
</tr>
<tr>
<td>Financial aid is disbursed</td>
<td>Friday, Aug. 14</td>
</tr>
<tr>
<td>Deadline for AUGUSTmester student- and faculty-initiated withdrawals (W grade appears on academic transcript)</td>
<td>Monday, Aug. 17</td>
</tr>
<tr>
<td>Residence halls open to first-year students only, 8 a.m.</td>
<td>Wednesday, Aug. 19</td>
</tr>
<tr>
<td>Residence halls open to all students, 8 a.m.</td>
<td>Thursday, Aug. 20</td>
</tr>
<tr>
<td>Orientation for new students</td>
<td>Friday-Saturday, Aug. 21-22</td>
</tr>
<tr>
<td>Last day of AUGUSTmester instruction and finals</td>
<td>Friday, Aug. 21</td>
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<tr>
<td>First day of instruction; late registration begins</td>
<td>Monday, Aug. 24</td>
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<tr>
<td>Deadline for faculty to post AUGUSTmester grades, noon</td>
<td>Wednesday, Aug. 26</td>
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<tr>
<td>Deadline for adding classes and late registration; 5 p.m. in person, midnight at UAOnline</td>
<td>Friday, Sept. 4</td>
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<tr>
<td>Last day for student- and faculty-initiated drops with refund (course does not appear on academic record)</td>
<td>Friday, Sept. 4</td>
</tr>
<tr>
<td>Deadline for tuition and fee payment; 5 p.m. in person, midnight at UAOnline</td>
<td>Friday, Sept. 4</td>
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<tr>
<td>Labor Day (offices closed — no classes, registration or fee payment)</td>
<td>Monday, Sept. 7</td>
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<tr>
<td>Early progress reports due</td>
<td>Monday, Oct. 5</td>
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<tr>
<td>Deadline to apply for fall 2020 graduation</td>
<td>Thursday, Oct. 15</td>
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<tr>
<td>Spring 2021 course list available at UAOnline</td>
<td>Monday, Oct. 26</td>
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<tr>
<td>Last day for student- and faculty-initiated withdrawals (W grade appears on academic transcript)</td>
<td>Friday, Oct. 30</td>
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<tr>
<td>Begin spring 2021 priority registration (UAF degree students)</td>
<td>Monday, Nov. 9</td>
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<tr>
<td>Begin spring 2021 open registration (all UAF, UAA and UAS students, including nondegree students)</td>
<td>Monday, Nov. 23</td>
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<tr>
<td>Thanksgiving break (no classes, most offices closed)</td>
<td>Wednesday-Sunday, Nov. 25-29</td>
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<td>Last day of instruction</td>
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<tr>
<td>Residence halls close, noon</td>
<td>Sunday, Dec. 13</td>
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<td>Deadline for faculty to post grades, noon</td>
<td>Wednesday, Dec. 16</td>
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<tr>
<td>Winter break (no classes, most offices closed; reopen Monday, Jan. 4, at 8 a.m.)</td>
<td>Thursday, Dec. 24-Friday, Jan. 1</td>
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## SPRING SEMESTER 2021

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<tr>
<td>Deadline to apply for admission for spring semester (most graduate students; some programs have different deadlines)</td>
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<tr>
<td>Spring 2021 course list available at UAOnline</td>
<td>Monday, Oct. 26</td>
</tr>
<tr>
<td>Deadline to apply for admission for spring semester (undergraduate students)</td>
<td>Sunday, Nov. 1</td>
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<tr>
<td>Event</td>
<td>Date</td>
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<td>----------------------------------------------------------------------</td>
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<tr>
<td>Begin spring 2021 priority registration (UAF degree students)</td>
<td>Monday, Nov. 9</td>
</tr>
<tr>
<td>Begin spring 2021 open registration (all UAF, UAA and UAS students, including nondegree students)</td>
<td>Monday, Nov. 23</td>
</tr>
<tr>
<td>Financial aid is disbursed</td>
<td>Monday, Jan. 4</td>
</tr>
<tr>
<td>Residence halls open, 8 a.m.</td>
<td>Friday, Jan. 8</td>
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<tr>
<td>Orientation for new students</td>
<td>Friday, Jan. 8</td>
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<tr>
<td>First day of instruction; late registration begins</td>
<td>Monday, Jan. 11</td>
</tr>
<tr>
<td>Alaska Civil Rights Day (no classes, most offices closed)</td>
<td>Monday, Jan. 18</td>
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<tr>
<td>Deadline for adding classes and late registration; 5 p.m. in person, midnight at UAOnline</td>
<td>Friday, Jan. 22</td>
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<tr>
<td>Last day for student- and faculty-initiated drops with refund (course does not appear on academic record)</td>
<td>Friday, Jan. 22</td>
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<tr>
<td>Deadline for tuition and fee payment; 5 p.m. in person, midnight at UAOnline</td>
<td>Friday, Jan. 22</td>
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<td>Deadline for UA Foundation and privately funded scholarship applications</td>
<td>Monday, Feb. 15</td>
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<tr>
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<td>Early progress reports due</td>
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<td>Spring break (no classes)</td>
<td>Monday-Friday, March 8-12</td>
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<td>University holiday (most offices closed for spring break)</td>
<td>Friday, March 12</td>
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<td>Fall 2021 course list available at UAOnline</td>
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<td>Last day for student- and faculty-initiated withdrawals (W grade appears on academic transcript)</td>
<td>Friday, March 26</td>
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<td>Begin AUGUSTmester and fall 2021 priority registration (UAF degree students)</td>
<td>Monday, April 5</td>
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<tr>
<td>Begin AUGUSTmester and fall 2021 open registration (all UAF, UAA and UAS students, including nondegree students)</td>
<td>Monday, April 19</td>
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<tr>
<td>Last day of instruction</td>
<td>Monday, April 26</td>
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<td>Tuesday-Saturday, April 27-May 1</td>
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<tr>
<td>Commencement</td>
<td>Saturday, May 1</td>
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<tr>
<td>Residence halls close, noon</td>
<td>Sunday, May 2</td>
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<tr>
<td>Deadline for faculty to post grades, noon</td>
<td>Wednesday, May 5</td>
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**MAYMESTER AND SUMMER SEMESTER 2021**

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<td>Begin MAYmester and summer 2021 priority registration (UAF degree students)</td>
<td>Monday, Feb. 8</td>
</tr>
<tr>
<td>Begin MAYmester and summer 2021 open registration (all UAF, UAA and UAS students, including nondegree students)</td>
<td>Monday, Feb. 22</td>
</tr>
<tr>
<td>Deadline to apply for admission for summer semester</td>
<td>Saturday, May 1</td>
</tr>
<tr>
<td>MAYmester courses begin; attendance required</td>
<td>Monday, May 3</td>
</tr>
<tr>
<td>Deadline for adding MAYmester classes; 5 p.m. in person, midnight at UAOnline</td>
<td>Monday, May 3</td>
</tr>
<tr>
<td>Deadline for MAYmester tuition and fee payment and refunds; 5 p.m. in person, midnight at UAOnline</td>
<td>Monday, May 3</td>
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<tr>
<td>Late payment fees begin for MAYmester</td>
<td>Tuesday, May 4</td>
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<tr>
<td>Financial aid is disbursed</td>
<td>Friday, May 7</td>
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<tr>
<td>Deadline for student- and faculty-initiated withdrawals for MAYmester (W grade appears on academic transcript)</td>
<td>Monday, May 10</td>
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<tr>
<td>Last day of MAYmester instruction</td>
<td>Monday, May 14</td>
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<tr>
<td>First day of instruction for six-week session I and full session</td>
<td>Monday, May 17</td>
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<td>Deadline for faculty to post MAYmester grades, noon</td>
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<td>Deadline to register for six-week session I; attendance required on this day</td>
<td>Wednesday, May 19</td>
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<tr>
<td>Deadline for refund of tuition and fees for six-week session I</td>
<td>Wednesday, May 19</td>
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<tr>
<td>Late payment fees begin for six-week session I</td>
<td>Thursday, May 20</td>
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<td>Deadline to register for full session; attendance required</td>
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<td>Deadline for refund of tuition and fees for full session</td>
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<td>Late payment fees begin for full session</td>
<td>Wednesday, May 26</td>
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<td>Memorial Day (no classes, most offices closed)</td>
<td>Monday, May 31</td>
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<td>Last day for student- and faculty-initiated withdrawals for six-week session I (W grade appears on academic transcript)</td>
<td>Wednesday, June 9</td>
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<tr>
<td>Last day of instruction for six-week session I</td>
<td>Friday, June 25</td>
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<td>First day of instruction for six-week session II</td>
<td>Monday, June 28</td>
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<td>Independence Day holiday (no classes, most offices closed)</td>
<td>Monday-Tuesday, July 5-6</td>
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<td>Deadline to register for six-week session II; attendance required on this day</td>
<td>Wednesday, July 7</td>
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<tr>
<td>Last day for refund of tuition and fees for six-week session II</td>
<td>Wednesday, July 7</td>
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Academic Calendar 2019-2020

Fairbanks Campus Academic Calendar 2019-2020

This academic calendar lists important dates and deadlines for the Fairbanks campus of the University of Alaska Fairbanks. For academic calendar information for UAF’s community campuses, contact the campuses directly or visit the Campuses webpage (http://uaf.edu/uaf/about/campuses/).


**AUGUSTmester and Fall Semester 2019**

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<td>Fall 2019 course list available at UAOnline</td>
<td>Monday, March 25</td>
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<tr>
<td>Begin fall and AUGUSTmester 2019 priority registration (UAF degree students)</td>
<td>Monday, April 1</td>
</tr>
<tr>
<td>Begin fall and AUGUSTmester 2019 open registration (all UAF, UAA and UAS students, including nondegree students)</td>
<td>Monday, April 15</td>
</tr>
<tr>
<td>Deadline to apply for admission for fall semester (UA Scholars)</td>
<td>Wednesday, May 1</td>
</tr>
<tr>
<td>Deadline to apply for admission for fall semester (most graduate students; some programs have different deadlines)</td>
<td>Saturday, June 1</td>
</tr>
<tr>
<td>Deadline to apply for admission for fall semester (undergraduate students)</td>
<td>Saturday, June 15</td>
</tr>
<tr>
<td>AUGUSTmester courses begin; attendance required</td>
<td>Monday, Aug. 12</td>
</tr>
<tr>
<td>Deadline for adding AUGUSTmester classes; 5 p.m. in person, midnight at UAOnline</td>
<td>Monday, Aug. 12</td>
</tr>
<tr>
<td>Deadline for AUGUSTmester tuition and fee payment and refunds; 5 p.m. in person, midnight at UAOnline</td>
<td>Monday, Aug. 12</td>
</tr>
<tr>
<td>Late payment fees begin for AUGUSTmester</td>
<td>Tuesday, Aug. 13</td>
</tr>
<tr>
<td>Financial aid is disbursed</td>
<td>Friday, Aug. 16</td>
</tr>
<tr>
<td>Deadline for AUGUSTmester student- and faculty-initiated withdrawals (W grade appears on academic transcript)</td>
<td>Monday, Aug. 19</td>
</tr>
<tr>
<td>Residence halls open to first-year students only, 8 a.m.</td>
<td>Wednesday, Aug. 21</td>
</tr>
<tr>
<td>Residence halls open to all students, 8 a.m.</td>
<td>Thursday, Aug. 22</td>
</tr>
<tr>
<td>Orientation for new students</td>
<td>Wednesday-Saturday, Aug. 21-24</td>
</tr>
<tr>
<td>Last day of AUGUSTmester instruction and finals</td>
<td>Friday, Aug. 23</td>
</tr>
<tr>
<td>First day of instruction; late registration begins</td>
<td>Monday, Aug. 26</td>
</tr>
<tr>
<td>Deadline for faculty to post AUGUSTmester grades, noon</td>
<td>Wednesday, Aug. 28</td>
</tr>
<tr>
<td>Labor Day (offices closed — no classes, registration or fee payment)</td>
<td>Monday, Sept. 2</td>
</tr>
<tr>
<td>Deadline for adding classes and late registration; 5 p.m. in person, midnight at UAOnline</td>
<td>Friday, Sept. 6</td>
</tr>
<tr>
<td>Last day for student- and faculty-initiated drops with refund (course does not appear on academic record)</td>
<td>Friday, Sept. 6</td>
</tr>
<tr>
<td>Deadline for tuition and fee payment; 5 p.m. in person, midnight at UAOnline</td>
<td>Friday, Sept. 6</td>
</tr>
<tr>
<td>Early progress reports due</td>
<td>Monday, Oct. 7</td>
</tr>
<tr>
<td>Deadline to apply for fall 2019 graduation</td>
<td>Tuesday, Oct. 15</td>
</tr>
<tr>
<td>Spring 2020 course list available at UAOnline</td>
<td>Monday, Oct. 28</td>
</tr>
<tr>
<td>Last day for student- and faculty-initiated withdrawals (W grade appears on academic transcript)</td>
<td>Friday, Nov. 1</td>
</tr>
<tr>
<td>Begin spring 2020 priority registration (UAF degree students)</td>
<td>Monday, Nov. 11</td>
</tr>
<tr>
<td>Begin spring 2020 open registration (all UAF, UAA and UAS students, including nondegree students)</td>
<td>Monday, Nov. 25</td>
</tr>
<tr>
<td>Thanksgiving break (no classes, most offices closed)</td>
<td>Wednesday-Sunday, Nov. 27-Dec. 1</td>
</tr>
<tr>
<td>Last day of instruction</td>
<td>Saturday, Dec. 7</td>
</tr>
<tr>
<td>Final examinations</td>
<td>Monday-Saturday, Dec. 9-14</td>
</tr>
<tr>
<td>Residence halls close, noon</td>
<td>Sunday, Dec. 15</td>
</tr>
<tr>
<td>Deadline for faculty to post grades, noon</td>
<td>Wednesday, Dec. 18</td>
</tr>
</tbody>
</table>
## WINTERMESTER AND SPRING SEMESTER 2020

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deadline to apply for admission for spring semester (international students)</td>
<td>Sunday, Sept. 1</td>
</tr>
<tr>
<td>Deadline to apply for admission for spring semester (most graduate students; some programs have different deadlines)</td>
<td>Tuesday, Oct. 15</td>
</tr>
<tr>
<td>Spring 2020 course list available at UAOnline</td>
<td>Monday, Oct. 28</td>
</tr>
<tr>
<td>Deadline to apply for admission for spring semester (undergraduate students)</td>
<td>Friday, Nov. 1</td>
</tr>
<tr>
<td>Begin spring and WINTERmester 2020 priority registration (UAF degree students)</td>
<td>Monday, Nov. 11</td>
</tr>
<tr>
<td>Begin spring and WINTERmester 2020 open registration (all UAF, UAA and UAS students, including nondegree students)</td>
<td>Monday, Nov. 25</td>
</tr>
<tr>
<td>WINTERmester courses begin; attendance required</td>
<td>Thursday, Jan. 2</td>
</tr>
<tr>
<td>Deadline for adding WINTERmester classes; 5 p.m. in person, midnight at UAOnline</td>
<td>Thursday, Jan. 2</td>
</tr>
<tr>
<td>Deadline for WINTERmester tuition and fee payment and refunds; 5 p.m. in person, midnight at UAOnline</td>
<td>Thursday, Jan. 2</td>
</tr>
<tr>
<td>Late payment fees begin for WINTERmester</td>
<td>Friday, Jan. 3</td>
</tr>
<tr>
<td>Financial aid is disbursed</td>
<td>Friday, Jan. 3</td>
</tr>
<tr>
<td>Deadline for WINTERmester student- and faculty-initiated withdrawals (W grade appears on academic transcript)</td>
<td>Monday, Jan. 6</td>
</tr>
<tr>
<td>Residence halls open, 8 a.m.</td>
<td>Friday, Jan. 10</td>
</tr>
<tr>
<td>Orientation for new students</td>
<td>Friday, Jan. 10</td>
</tr>
<tr>
<td>Last day of WINTERmester instruction and finals</td>
<td>Saturday, Jan. 11</td>
</tr>
<tr>
<td>First day of instruction; late registration begins</td>
<td>Monday, Jan. 13</td>
</tr>
<tr>
<td>Deadline for faculty to post WINTERmester grades, noon</td>
<td>Thursday, Jan. 16</td>
</tr>
<tr>
<td>Alaska Civil Rights Day (no classes, most offices closed)</td>
<td>Monday, Jan. 20</td>
</tr>
<tr>
<td>Deadline for adding classes and late registration; 5 p.m. in person, midnight at UAOnline</td>
<td>Friday, Jan. 24</td>
</tr>
<tr>
<td>Last day for student- and faculty-initiated drops with refund (course does not appear on academic record)</td>
<td>Friday, Jan. 24</td>
</tr>
<tr>
<td>Deadline for tuition and fee payment; 5 p.m. in person, midnight at UAOnline</td>
<td>Friday, Jan. 24</td>
</tr>
<tr>
<td>Deadline for UA Foundation and privately funded scholarship applications</td>
<td>Saturday, Feb. 15</td>
</tr>
<tr>
<td>Deadline to apply for spring 2020 graduation</td>
<td>Monday, Feb. 17</td>
</tr>
<tr>
<td>Early progress reports due</td>
<td>Monday, Feb. 24</td>
</tr>
<tr>
<td>Spring break (no classes)</td>
<td>Monday-Friday, March 9-13</td>
</tr>
<tr>
<td>University holiday (most offices closed for spring break)</td>
<td>Friday, March 13</td>
</tr>
<tr>
<td>Fall 2020 course list available at UAOnline</td>
<td>Monday, March 23</td>
</tr>
<tr>
<td>Begin fall 2020 priority registration (UAF degree students)</td>
<td>Monday, April 6</td>
</tr>
<tr>
<td>Last day for student- and faculty-initiated withdrawals (W grade appears on academic transcript)</td>
<td>Friday, April 10 REVISED DATE</td>
</tr>
<tr>
<td>Begin fall 2020 open registration (all UAF, UAA and UAS students, including nondegree students)</td>
<td>Monday, April 20 REVISED DATE</td>
</tr>
<tr>
<td>Deadline for students to select the credit/no-credit option</td>
<td>Monday, April 27 REVISED DATE</td>
</tr>
<tr>
<td>Last day of instruction</td>
<td>Tuesday-Saturday, April 28-May 2</td>
</tr>
<tr>
<td>Final examinations</td>
<td></td>
</tr>
<tr>
<td>Commencement</td>
<td>Saturday, May 2</td>
</tr>
<tr>
<td>Residence halls close, noon</td>
<td>Sunday, May 3</td>
</tr>
<tr>
<td>Deadline for faculty to post grades, noon</td>
<td>Wednesday, May 6</td>
</tr>
</tbody>
</table>

## MAYMESTER AND SUMMER SEMESTER 2020

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summer 2020 course list available at UAOnline</td>
<td>Monday, Feb. 3</td>
</tr>
<tr>
<td>Begin summer 2020 priority registration (UAF degree students)</td>
<td>Monday, Feb. 10</td>
</tr>
<tr>
<td>Begin summer 2020 open registration (all UAF, UAA and UAS students, including nondegree students)</td>
<td>Monday, Feb. 24</td>
</tr>
<tr>
<td>Deadline to apply for admission for summer semester</td>
<td>Friday, May 1</td>
</tr>
<tr>
<td>MAYmester courses begin; attendance required</td>
<td>Friday, May 1</td>
</tr>
<tr>
<td>Deadline for adding MAYmester classes; 5 p.m. in person, midnight at UAOnline</td>
<td>Monday, May 4</td>
</tr>
<tr>
<td>Deadline for MAYmester tuition and fee payment and refunds; 5 p.m. in person, midnight at UAOnline</td>
<td>Monday, May 4</td>
</tr>
<tr>
<td>Late payment fees begin for MAYmester</td>
<td>Tuesday, May 5</td>
</tr>
<tr>
<td>Event</td>
<td>Date</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
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</tr>
<tr>
<td>Financial aid is disbursed</td>
<td>Monday, May 11</td>
</tr>
<tr>
<td>Deadline for student- and faculty-initiated withdrawals for MAYmester (W grade appears on academic transcript)</td>
<td>Monday, May 11</td>
</tr>
<tr>
<td>Last day of MAYmester instruction</td>
<td>Friday, May 22 (REVISED DATE)</td>
</tr>
<tr>
<td>First day of instruction for six-week session I and full session</td>
<td>Monday, May 18</td>
</tr>
<tr>
<td>Deadline to register for six-week session I; attendance required on this day</td>
<td>Wednesday, May 20</td>
</tr>
<tr>
<td>Deadline for refund of tuition and fees for six-week session I</td>
<td>Wednesday, May 20</td>
</tr>
<tr>
<td>Late payment fees begin for six-week session I</td>
<td>Thursday, May 21</td>
</tr>
<tr>
<td>Memorial Day (no classes, most offices closed)</td>
<td>Monday, May 25</td>
</tr>
<tr>
<td>Deadline to register for full session; attendance required</td>
<td>Tuesday, May 26</td>
</tr>
<tr>
<td>Deadline for refund of tuition and fees for full session</td>
<td>Tuesday, May 26</td>
</tr>
<tr>
<td>Deadline for faculty to post MAYmester grades, noon</td>
<td>Wednesday, May 27 (REVISED DATE)</td>
</tr>
<tr>
<td>Late payment fees begin for full session</td>
<td>Wednesday, May 27</td>
</tr>
<tr>
<td>Last day for student- and faculty-initiated withdrawals for six-week session I (W grade appears on academic transcript)</td>
<td>Wednesday, June 10</td>
</tr>
<tr>
<td>Last day of instruction for six-week session I</td>
<td>Friday, June 26</td>
</tr>
<tr>
<td>First day of instruction for six-week session II</td>
<td>Monday, June 29</td>
</tr>
<tr>
<td>Independence Day holiday (no classes, most offices closed)</td>
<td>Thursday-Friday, July 2-3</td>
</tr>
<tr>
<td>Deadline to register for six-week session II; attendance required on this day</td>
<td>Monday, July 6</td>
</tr>
<tr>
<td>Last day for refund of tuition and fees for six-week session II</td>
<td>Monday, July 6</td>
</tr>
<tr>
<td>Last day for registration. Deadline for thesis and research credit payment (graduate students).</td>
<td>Monday, July 6</td>
</tr>
<tr>
<td>Late payment fees begin for six-week session II</td>
<td>Tuesday, July 7</td>
</tr>
<tr>
<td>Last day for student- and faculty-initiated withdrawals for full session (W grade appears on academic transcript)</td>
<td>Tuesday, July 7</td>
</tr>
<tr>
<td>Deadline to apply for summer 2020 graduation</td>
<td>Wednesday, July 15</td>
</tr>
<tr>
<td>Last day for student- and faculty-initiated withdrawals for six-week session II (W grade appears on academic transcript)</td>
<td>Wednesday, July 22</td>
</tr>
<tr>
<td>Last day of instruction for six-week session II and full session, including final exams</td>
<td>Friday, Aug. 7</td>
</tr>
<tr>
<td>Deadline for faculty to post grades, noon</td>
<td>Wednesday, Aug. 12</td>
</tr>
</tbody>
</table>
OVERVIEW

The catalog is a complete guide to studying at the University of Alaska Fairbanks. The catalog includes information on admission and graduation requirements, the academic calendar, and program and course listings for occupational endorsement, certificate, associate, bachelor’s, master’s and Ph.D. degree students.

The catalog is updated each academic year to reflect changes in academic rules and degree requirements. If you are looking for a different academic year than the one listed above, view our archived catalogs (p. 403).

Programs approved after this catalog was published are available in the addendum (p. 26). Students enrolling for the first time should also refer to the registration guide (https://www.uaf.edu/handbook/register/). Search for courses available for registration using the UAF Course Finder (https://www.uaf.edu/coursefinder/). For a schedule of classes at any of UAF’s community campuses, contact the campus directly. Addresses and phone numbers of campuses and UAF offices can be found using the People Directory (https://people.alaska.edu/).

Accreditation

UAF is accredited by the Northwest Commission on Colleges and Universities (http://www.nwccu.org/). Additionally it has the following specialized accreditations, certifications and standards:

- AACSB International
- ABET — Engineering Accreditation Commission
- ABET — Computing Accreditation Commission
- Alaska Police Standards Council
- American Alliance of Museums
- American Bar Association
- American Chemical Society
- American Psychological Association
- Commission on Accreditation of Allied Health Education Programs: Medical Assistant and Paramedic Program
- Council for Accreditation of Counseling and Related Educational Programs
- Council for the Accreditation of Educator Preparation
- Council on Social Work Education
- Federal Aviation Administration
- National Association for Developmental Education
- National Automotive Technicians Education Foundation
- North American Process Technology Alliance

 Campuses

All UAF campuses are tobacco-free as of Dec. 31, 2015.

Fairbanks Campus

The 2,250-acre Fairbanks campus offers limitless opportunities for activity and recreation. The main campus has two lakes and 26 miles of trails as well as a major student recreation complex for indoor sports. Facilities are available for basketball, volleyball, badminton, tennis, calisthenics, dance, gymnastics, judo and karate. There are rifle and pistol ranges; courts for handball, racquetball and squash; a jogging track; a swimming pool; weight training and modern fitness equipment areas; an ice arena for recreational skating and hockey; a special aerobics area; a two-story indoor climbing wall and an outdoor climbing tower covered with ice in the winter. UAF sponsors intercollegiate athletic teams in men’s and women’s basketball, men’s and women’s cross country running and skiing, coed rifle, men’s ice hockey and women’s volleyball and swimming.

The Wood Center is the focus of many extracurricular activities. With a pub, dining facilities, meeting rooms, lounge and games area, the Wood Center is a gathering place for the entire university community.

UAF has some of the best facilities in the state. Performances are scheduled almost every weekend during the academic year in Davis Concert Hall or Salisbury Theatre. The Rasmuson Library, Alaska’s largest library, offers extensive resource materials in print and online. An array of computer databases provides access to hundreds of academic journals, and Internet connections allow students at remote rural sites to use library resources. The UA Museum of the North is not only one of the top visitor attractions in the state but also a resource for students. Its vast collections are used for demonstration and comparative studies in classrooms and labs.

The Fairbanks campus is the statewide university system’s principal research center. Internationally respected institutes provide students with an opportunity to see science in action and participate in research activities.

FAIRBANKS AREA

Fairbanks, Alaska’s second-largest city, sits on the banks of the Chena River in the heart of Alaska. The downtown district is easily accessible via the local bus system and a network of bike trails. The city is steeped in a history of riverboat captains and gold seekers. Its character has been shaped by a large military presence, construction of the trans-Alaska oil pipeline and the continuing oil economy, and a thriving university. It is a city where old quietly blends with new. Striking modern buildings sit side-by-side with log cabins built in the early part of the last century.

With an area population of some 96,000, Fairbanks offers the conveniences of a big city, yet millions of acres of rolling hills and spectacular Alaska panoramas are only minutes away. Whether the sport is canoeing, climbing, running, dog mushing, skiing or fishing, nowhere else compares with Alaska. Denali (Koyukon Athabascan for “The High One”), the tallest mountain in North America, is often visible from many UAF residence hall windows.

TRANSPORTATION TO FAIRBANKS

Fairbanks is easily accessible by land or air. Anchorage is 365 miles away via the Parks Highway or the Alaska Railroad, and Seattle is 2,300 miles away via the Alaska Highway. Major airlines offer several daily flights between Fairbanks and Anchorage, Seattle and many other destinations.

The Alaska Railroad provides a special one-way fare between Anchorage and Fairbanks for all full-time UAF students in summer or regular sessions. Students must ask for the special rate when making reservations and present their student ID to the ticket agent at check-in. For reservations, contact the Alaska Railroad at 907-458-6025 or 800-544-0552.

ECAMPUS

Since 1963, UAF has been a leader in offering distance courses and programs for students throughout Alaska and the world. eCampus offers more than 350 courses in 60 disciplines. Additionally, eCampus offers full degrees and certificates completely online. Internet-based
courses let students increase their educational opportunities, further their education and earn their degree without the constraint of classroom attendance. eCampus courses are academically rigorous, meet during regular semesters and count toward degree and program requirements.

For more information contact eCampus (http://ecampus.uaf.edu) in the Bunnell Building on the Fairbanks campus, by phone at 800-277-8060 or 907-455-2087, via email at uaf-ecampus@alaska.edu.

Community Campuses

In addition to the Fairbanks campus, UAF has community and rural campuses in downtown Fairbanks, Bethel, Dillingham, Kotzebue and Nome, and maintains six community centers through its Interior Alaska Campus in Fairbanks. These branches are central to fulfilling the UAF mission of providing educational opportunities throughout the state. Credits earned at any UAF campus or center are recognized at all UAF campuses, meaning that students may change campuses and transfer all UA credits.

BRISTOL BAY CAMPUS IN DILLINGHAM

The Bristol Bay Campus serves 32 rural communities in the Bristol Bay region within a 55,000-square-mile area. The campus includes 12 coastal communities served by the Aleutian-Pribilof outreach center in Unalaska/Dutch Harbor: the Aleutian archipelago, lower Alaska Peninsula, the Shumigan Islands, and the Pribilof Islands. The campus’ administrative center is in Dillingham (about 322 air miles from Anchorage and 570 air miles from Fairbanks), with centers in King Salmon, Togiak and New Stuyahok. Enrollment at Bristol Bay Campus ranges from 500 to 800 students each semester. The campus offers an Associate of Arts degree in general studies and Associate of Applied Science degrees in allied health, applied business, applied accounting, community health, early childhood education, human services, information technology, interdisciplinary studies and renewable resources. Bachelor’s degree programs include elementary education, interdisciplinary studies, rural development and social work. Master’s degrees are offered in rural development and education. Other programs include Adult Basic Education, providing adult basic education through high school-level instruction for Bristol Bay adults, and the Marine Advisory Program.

The Bristol Bay Campus also provides educational opportunities for communities in its service area, including vocational-technical, community interest and graduate courses. Classes are offered by distance delivery (audio conference, video conference, correspondence or Internet) and by instructors using traditional methods. For more information, visit the Bristol Bay Campus website (http://www.uaf.edu/bbc/).

CHUKCHI CAMPUS IN KOTZEBUE

The Chukchi Campus is located 26 miles north of the Arctic Circle on the shores of the Chukchi Sea. The campus serves Kotzebue and 10 villages in a region of more than 36,000 square miles. Chukchi offers Associate of Arts as well as Associate of Applied Science degrees, and courses leading to baccalaureate degrees in education, rural development and social work. Courses are offered by local instructors and through the College of Rural and Community Development audio-conferencing and live Internet instructional systems. For more information, visit the Chukchi Campus website (http://www.uaf.edu/chukchi/).

COMMUNITY AND TECHNICAL COLLEGE IN FAIRBANKS

The Community and Technical College offers more than 40 certificate and degree programs such as allied health and nursing, process technology, applied business and accounting, paramedic and law enforcement academies, information technology, fire science, aviation, early childhood education and more.

Many CTC classes are held during evenings or weekends; the college also offers a growing array of courses online. CTC specializes in meeting the needs of nontraditional students who have been away from college or whose work and family obligations make full-time student status challenging, as well as traditional students entering college for the first time.

CTC operates in nine different locations throughout Fairbanks and the surrounding area.

CTC’s downtown location (604 Barnette St.) provides a one-stop-shop that enables students to take care of all of their university related needs in one convenient location. Services include academic and financial aid advising, support to register and pay for courses, placement testing and students can even obtain parking passes and their student ID. CTC’s downtown location also contains a tutoring and learning center, open computer labs, and specialized classrooms and labs to support programs such as health, computer and information technology and many more.

CTC has several other locations in the Fairbanks area with specialized facilities and equipment to support the industry experience and the hands-on education provided through programs such as aviation maintenance, automotive technology, culinary arts, diesel/heavy equipment maintenance, paramedicine and more.

- Aviation Maintenance Program Hangar: 3504 University Ave. South
- Bunnell House Early Childhood Lab School: 1793 Chatanika Dr.
- Fairbanks Pipeline Training Center: 3600 Cartwright Ct.
- Hutchison Institute of Technology: 3750 Geist Rd.
- University Park Building: 1000 University Ave.
- Offices on Fort Wainwright and Eielson Air Force Base
- Partnership office at Delta Career Advancement Center in Delta Junction

For more information contact CTC at 907-455-2800 or visit the CTC website (http://www.ctc.uaf.edu).

INTERIOR ALASKA CAMPUS

The Interior Alaska Campus in Fairbanks serves 46 communities and villages in the Doyon and Tanana Chiefs regions throughout the interior of Alaska, an area about the size of France. The Interior Alaska Campus is the most decentralized of the UAF campuses. Although the director’s office and some faculty are located in Fairbanks, there is Interior Alaska Campus staff in Anchorage, Fort Yukon, Kenai Peninsula and Tok. Courses are offered online and by audio conference, on site by local or visiting instructors, and via intensive sessions in Fairbanks and Anchorage. The campus offers a range of degree programs, including occupational endorsements, certificates, and Associate of Arts and Associate of Applied Science degrees. Math and English tutors are available for all students taking courses through the campus. For more information, visit the Interior Alaska Campus website (http://www.uaf.edu/iac/).

KUSKOKWIM CAMPUS IN BETHEL

The Kusokwim Campus is located in Bethel and serves approximately 25,000 people in the Yukon-Kusokwim Delta, which includes 47 remote Alaska Native Yup’ik and Cup’ik Eskimo and Athabaskan villages with 56 tribes in a 57,000-square-mile area the size of Illinois. Bethel is a
community of about 6,000 people 80 miles inland on the Kuskokwim River. KuC also operates one remote learning center based in Hooper Bay, a Yup'ik Eskimo community of 1,000 on the Bering Sea coast. KuC offers academic, vocational and community interest courses, as well as courses leading to associate, baccalaureate and master's degrees, including a Bachelor of Arts degree in Yup'ik language and culture, the home language of many families in the region. The Emerging Scholars Program assists all full-time freshmen in the transition to college, both academically and socially, and in the completion of certificates and degrees. Students may attend classes on campus and through distance delivery. Housing on campus is available in Sackett Hall, which provides suites with space for four students in each. For more information, visit the Kuskokwim Campus website (http://www.bethel.uaf.edu).

NORTHWEST CAMPUS IN NOME

Northwest Campus is located in Nome, a community of 3,500 that is the service hub for the 15 villages of the Bering Strait region. This 44,000-square-mile region extends from Shishmaref on the northern edge of the Seward Peninsula to Stebbins on the southern rim of Norton Sound. It includes communities on St. Lawrence and Little Diomede islands. The area contains 570 miles of coastline, which includes all of Norton Sound and portions of the Bering and Chukchi seas.

The Northwest Campus serves a total population of nearly 10,000. Certificates and associate, bachelor's and master's degrees are offered to the region's residents, with courses taught both traditionally and by distance delivery. The campus responds to vocational, business development, cultural preservation and academic needs of the Bering Strait region. Many courses, programs and degrees are offered in cooperation with regional health and tribal organizations, school districts and corporations. Northwest Campus offers the high latitude range management certificate program supporting reindeer herding and husbandry. For more information, visit the Northwest Campus website (http://www.nwc.uaf.edu) or NWC on Facebook (http://www.facebook.com/uafnwc/).

Troth Yeddha'

In February 2013 the U.S. Board on Geographic Names officially recognized Troth Yeddha' as the name of the ridge on which the Fairbanks campus sits. In the Lower Tanana Athabascan language, this name means “Indian potato ridge” and refers to the plant with an edible root — Hedysarum alpinum — that is a traditional food for Native people throughout Alaska.

The Athabascan, or Dene, languages have ancient ties to the Tanana Valley. Athabaskan geographic names are functional, rule-driven and shared across neighboring languages. Numerous Tanana Valley Athabaskan experts have shared the Troth Yeddha' place name with pride.

In 1994, the late Chief Peter John of Minto said Athabaskan people long ago would gather on Troth Yeddha’ to talk and advise one another. When they learned this place would be used for a university, he said, they decided that the school would carry on a traditional use of this hill — a place for thinking and working together.

In recent years, numerous facts about the Chena Athabascans of Troth Yeddha’ have been assembled. Until the 1840s, a small village was located near a pond at the base of the ridge, where the UAF Physical Plant building is now. Athabascan place names for the nearby lakes and streams, some of which incorporate the ridge's name, have also been identified.

UAF celebrates and honors the historical place of Alaska's first peoples. In 2008, the UA Board of Regents set aside seven acres next to the UA Museum of the North as Troth Yeddha’ Park. The park is a venue to recognize the rich cultures of Alaska Natives and their presence on the Fairbanks campus.

For more information visit the Troth Yeddha’ Initiative website (http://www.uaf.edu/trothyeddha/).

Colleges and Schools

UAF colleges and schools offer programs leading to occupational endorsements, certificates and associate, bachelor's and master's degrees in the arts, sciences and professions. Doctoral programs are available in areas of particular strength, such as sciences and mathematics.

Community and Technical College

The Community and Technical College fulfills UAF’s community college mission in the greater Fairbanks area by offering high-quality certificate, degree and specialized training programs. Its core purpose is to provide community-driven education to meet needs for workforce development, academic preparation and lifelong learning. CTC helps prepare Alaskans for Alaska’s jobs.

CTC offers more than 40 certificate and degree programs such as allied health and nursing, process technology, applied business and accounting, paramedic and law enforcement academies, information technology, fire science, aviation, and early childhood education.

CTC benefits from strong partnerships with local employers in business, industry and organized labor. Many CTC faculty come from active workplace settings, ensuring that CTC students learn from people at the forefront of their professions.

Many CTC classes are held during evenings or weekends; the college also offers a growing array of courses online. CTC specializes in meeting the needs of nontraditional students who have been away from college or whose work and family obligations make full-time student status challenging, as well as traditional students entering college for the first time.

CTC programs are delivered at nine different locations in throughout the Fairbanks and surrounding area. CTC's downtown location (604 Barnette St.) provides a one-stop-shop that enables students to take care of all of their university related needs in one convenient location. Each CTC location contains specialized facilities and equipment to support the industry experience and the hands-on education provided through programs such as aviation maintenance, automotive technology, culinary arts, diesel/heavy equipment maintenance, paramedicine and more.

For more information contact CTC at 907-455-2800 or visit the CTC website (http://www.ctc.uaf.edu).

Education

The School of Education prepares professional educators and counselors for Alaska’s unique geographic, cultural and linguistic conditions. Course work and fieldwork in a broad range of undergraduate and graduate programs are available to students in Fairbanks and Anchorage and by distance delivery to rural areas. Programs offered respond to recent
increased interactions with faculty and other students and excellent access to instructional laboratories. The college provides opportunities for undergraduate and graduate students to participate in research. Theoretical and practical hands-on knowledge, in tandem with discipline-related research, gives CEM students the expertise and training they need for their chosen career path.

CEM departments are active in outreach activities such as Engineering Week, the Alaska Summer Research Academy, the Alaska Native Science and Engineering Program, educational workshops, the fundamentals of engineering examination review course, and a range of short courses for the professional engineering community. Visit the CEM website (http://cem.uaf.edu) or call 907-474-7730 for more information.

**Fisheries and Ocean Sciences**

The College of Fisheries and Ocean Sciences is responsible for statewide academic, research and service programs relating to Alaska's marine and freshwater environments and fisheries.

For undergraduate degrees, CFOS offers a minor and a Bachelor of Arts in fisheries, a Bachelor of Science in fisheries and marine sciences, and minors in marine science and fisheries. Fieldwork opportunities are available to undergraduate students through cooperating state and federal agencies, and internships are available with nonprofit and industry fishery partners. Undergraduate fisheries majors are prepared for graduate study or to enter management, private industry or other fields.

Graduate degrees offered by CFOS include Master of Science and doctoral degrees in oceanography, marine biology and fisheries, and a Master of Marine Studies. Students can also pursue studies in seafood science through the fisheries program. Graduate students prepare for careers in university research and education, or research or management with state and federal agencies and private industry. As part of their degree programs, graduate students conduct research in collaboration with faculty, often in remote locations around Alaska and beyond.

Education, research and extension work on freshwater and marine systems are conducted by the departments that make up CFOS. The Institute of Marine Science (http://www.uaf.edu/cfos/research/institute-of-marine-sciences/), with major laboratory facilities in Fairbanks and Seward, focuses on oceanographic and marine biological research. The Kasitsna Bay laboratory (http://www.uaf.edu/cfos/about-us/locations/kasitsna-bay/), near Homer, is the site for coastal research on intertidal and subtidal communities. The Juneau Center (http://www.uaf.edu/cfos/about-us/locations/juneau/) focuses on fisheries research and education. CFOS also operates the oceanographic vessel **Sikuliaq**, a global-class research vessel designed to work in the ice-laden waters of polar regions. The **Sikuliaq** is based in Seward.

For more information, visit the CFOS website (https://www.uaf.edu/cfos/) or call 907-474-7210.

**Graduate School**

UAF offers professional licenses, graduate certificates, master’s degrees and the Doctor of Philosophy degree in a number of areas. The Graduate School also manages UAF’s unique interdisciplinary program where students can work on individualized degrees related to current issues. See the graduate degree requirements and specifics on programs offered.

The Office of the Graduate School provides information and guidance for prospective and current graduate students, including orientation, teaching assistant training and several scholarship and fellowship opportunities.
The College of Natural Science and Mathematics offers undergraduate and graduate programs in agriculture, atmospheric sciences, biological sciences, chemistry and biochemistry, computer sciences, geosciences, mathematics, natural resources and sustainability, physics, and statistics. CNSM’s Division of Research includes the Geophysical Institute, which operates Alaska’s Space Physics Research Laboratory, and the Center for Alaska Coastal Studies. The College of Natural Science and Mathematics provides opportunities for undergraduate and graduate students to work with faculty on research projects. Unique opportunities are available through UAF research centers and institutes, including the CNSM Division of Research, the Geophysical Institute, the Institute of Arctic Biology, the UA Museum of the North, the International Arctic Research Center, and the Agricultural and Forestry Experiment Station. The fundamental knowledge gained through courses and working on practical, discipline-related projects gives CNSM graduates the skills and experience they need to enter the job market or continue their education.

CNSM is home to the Biomedical Learning and Student Training program, Alaska Native Science and Engineering Program, and K–12 outreach programs, including the Science Potpourri, the Alaska Summer Research Academy, Inspiring Girls Expeditions and GeoFORCE. In these and other programs, high school and university students work with CNSM faculty on original research projects aimed at improving the quality of life in Alaska.

At the graduate level, CNSM offers master’s and doctoral degrees in the natural sciences, mathematics, and natural resources and sustainability. These advanced programs provide students with research opportunities in laboratory and field settings throughout Alaska. CNSM’s doctoral programs provide opportunities for advanced study leading to academic and professional positions. For more information, visit the CNSM website (http://www.uaf.edu/cnsm/) or call 907-474-7608.

The College of Rural and Community Development focuses on the needs of nontraditional students, including students who seek skills and degrees suited to the economy and well-being of rural communities. CRCD promotes workforce preparation, economic development, lifelong learning and community development. CRCD campuses provide general and vocational-technical education at the occupational endorsement, certificate and associate degree levels, and baccalaureate degrees in rural development and child development/family studies, and a master’s in rural development. In cooperation with the College of Liberal Arts and the School of Education, CRCD offers baccalaureate and graduate degrees in cross-cultural studies, education and social work as well as a Ph.D. in indigenous studies. CRCD also offers workshops, continuing education and short-term courses, developmental studies, credit for prior learning and other nondegree student services.

CRCD community campuses include Northwest (http://www.nwc.uaf.edu/) (Nome), Kuskokwim (http://www.bethel.uaf.edu/) (Bethel), Bristol Bay (http://www.uaf.edu/bbb/) (Dillingham), Chukchi (http://www.uaf.edu/chukchi/) (Kotzebue) and Interior Alaska (http://www.uaf.edu/iac/) (Fairbanks, which administers five centers throughout the Interior).

CRCD serves nearly two-thirds of Alaska, encompassing 160 primarily Alaska Native Arctic, sub-Arctic and coastal communities. At least 16 indigenous languages are spoken in the region served by CRCD, and the economy spans subsistence hunting and fishing, small-scale village development and cooperatives, and large-scale international corporate development. The College of Rural and Community Development focuses on responding to students and partners to develop the economic and social well-being of Alaska Native communities and beyond. For more information, visit the CRCD website (http://www.uaf.edu/rural/) or call 907-474-7143.
Research Institutes, Centers and Consortia

UAF’s location in Interior Alaska provides easy access to glaciers, permafrost, the Pacific and Arctic oceans, and other elements of a sub-Arctic climate. Accordingly, several research centers and academic departments focus their scholarly work on issues particular to the North. These include the environmental impact of human activities, development of renewable and nonrenewable resources and energy sources, and the understanding and preservation of Indigenous Northern cultures.

The vice chancellor for research oversees all university research activities and has primary responsibility for the university’s research mission. The VCR office directs the development of university research policies and oversees sponsored programs, research integrity, and intellectual property and licensing.

Assistantships are available for graduate students working on research with faculty in many research institutes and centers. Each researcher has a joint appointment with an academic department. Any student interested in specific faculty research projects and the availability of assistantships should contact the appropriate academic department.

Agricultural and Forestry Experiment Station

The Agricultural and Forestry Experiment Station conducts research to enhance the quality of life in Alaska through development of natural, economic and human resources. Research emphasizes factors typical of high latitudes and is designed to provide the information and technology needed to manage renewable resources for the economic and social well-being of Alaskans. This work includes studies of natural and manipulated ecosystems, sustainable soil productivity, food production, food security, genetics for improved plant and animal productivity, and enhanced livestock production. Additional research involves economic and legal aspects of resource use, silviculture and forest management, resource use for tourism and recreation, and education and communications in resources management.

AFES, in cooperation with state and federal agencies, conducts research at sites in Fairbanks, Palmer, Delta Junction and Nome. AFES faculty have a leadership role in the Long-Term Ecological Research program funded by the National Science Foundation. This research, which is determining the structure and function of northern boreal forest ecosystems, forms the basis for sustainable forest management practices.

AFES researchers represent the disciplines of agronomy, animal science, economics, forestry, horticulture, land use planning, outdoor recreation, plant pathology, range science, resource policy and law, and soil science. For more information, visit the AFES website (http://www.uaf.edu/afes/) or call 907-474-7188.

Alaska Center for Energy and Power

The Alaska Center for Energy and Power is a statewide, university-led, applied research program. ACEP excels at being responsive to immediate and long term needs of residents, industries and agencies and focuses on research related to community and industry-scale power generation, transmission, heating, and transportation fuels. ACEP prioritizes its work on areas where Alaska has specific needs or where Alaska has a strategic advantage due to resource availability, unique circumstances, or location.

ACEP strives to develop and disseminate practical, cost-effective, and innovative energy solutions for Alaska and beyond. Their three primary products are information, technology and a prepared, professional workforce. ACEP houses the Alaska Hydrokinetic Energy Research Center (http://acep.uaf.edu/programs/alaska-hydrokinetic-energy-research-center.aspx).

For more information, visit the ACEP website (http://acep.uaf.edu) or call 907-474-5402.

Alaska Cooperative Fish and Wildlife Research Unit

The Alaska Cooperative Fish and Wildlife Research Unit is jointly sponsored and financed by the U.S. Geological Survey, UAF, the Alaska Department of Fish and Game, the U.S. Fish and Wildlife Service, and the Wildlife Management Institute. The unit supports and guides graduate training in fisheries and wildlife biology and management.

Wildlife research is directed toward habitat relationships, avian ecology, wildlife population dynamics, and the impact of northern development on wild animals and their habitats. Fisheries research focuses on the ecology and fisheries of Alaska freshwater ecosystems, and evaluation and development of cold-water fisheries techniques.

For more information, visit the Alaska Cooperative Fish and Wildlife Research Unit website (http://www.akcfwru.uaf.edu) or call 907-474-7661.

Alaska Native Language Center

The Alaska Native Language Center was established by state legislation in 1972 to document and preserve the 20 Indian, Aleut and Eskimo languages in Alaska. It is the major center in the United States for the study of Eskimo and northern Athabaskan languages. ANLC publishes its findings in dictionaries, grammars, story collections and research papers. The Alaska Native Language Archive houses a valuable collection of manuscript materials in and on Alaska Native languages, including word lists and documentation dating to the late 1700s. The archive is available to scholars and students and is housed at the Rasmuson Library.

As part of the College of Liberal Arts, ANLC’s teaching program includes a B.A. in Yup’ik or Inupiaq Eskimo, an A.A.S. degree or certificate in Native language education, and special classes in language literacy. A B.A. in Yup’ik language and culture teaches major courses entirely in the Yup’ik language.

For more information, visit the ANLC website (http://www.uaf.edu/anlc/) or call 907-474-7874.

Alaska Quaternary Center

The Alaska Quaternary Center, established in 1982, is a focal point for interdisciplinary Quaternary studies and research at UAF. The Quaternary Period spans the past two million years, a time of glacial-interglacial climate oscillations, floral and fauna migrations, mammalian extinctions and human evolution. Quaternary studies thus encompass scientific investigations of geologic, climatic, biologic and human systems of the past and present. The AQC comprises researchers in the anthropology, biology and wildlife, and geology and geophysics departments, the
School of Natural Resources and Extension, the Institute of Marine Science, the Institute of Arctic Biology and the Geophysical Institute.

The AQC is housed within the Department of Geology and Geophysics (http://www.uaf.edu/geology/) and the College of Natural Science and Mathematics (http://www.uaf.edu/cnsm/). The center sponsors seminars and workshops and hosts visiting speakers from countries throughout the world. Quaternary scholars from UAF regularly collaborate with Canadian, Russian and European colleagues conducting research in Alaska, Siberia and the Yukon, as well as Africa, Mongolia and western Europe. The AQC plays an important role in Northern science during this time of increasing interest in studies of global change, biodiversity and other aspects of Arctic climates and ecosystems.

For more information, call 907-474-5433 or visit the AQC website (https://www.uaf.edu/aqc/).

Alaska Sea Grant

Alaska Sea Grant is a partnership between the National Oceanic and Atmospheric Administration and the University of Alaska Fairbanks.

Alaska Sea Grant enhances the sustainable use and conservation of Alaska’s marine and freshwater resources through research, outreach and education.

ASG supports researchers and university graduate students contributing new knowledge about healthy coastal ecosystems, sustainable fisheries and resilient coastal communities. Alaska Sea Grant also recruits students into career-building national and state scholarships and fellowships in marine policy, fisheries population dynamics and other marine fields.

Alaska Sea Grant Marine Advisory Program faculty, located in coastal communities across Alaska, build partnerships that provide technical assistance to support economic development, marine literacy, workforce development and resource management. Thousands of adults and youth across the state attend workshops and presentations by ASG each year.

As part of its education mission, ASG supports marine literacy among K-12 teachers and students through curriculum and other learning resources and training. ASG produces publications and website resources available via an online bookstore that help the public understand Alaska’s diverse marine ecosystem. ASG also keeps scientists connected through community-based regional scientific conferences and through scientific symposia, including the international Lowell Wakefield Fisheries Symposium series.

ASG is funded by UAF and NOAA, with support from various public and private partners.

For more information visit the Alaska Sea Grant website (https://alaskaseagrant.org/) or call 907-474-7086.

Center for Cross-Cultural Studies

Established in 1971, the Center for Cross-Cultural Studies is a teaching, research and development unit administered through the UAF College of Liberal Arts. It promotes programs that concentrate on the needs of Alaska's Indigenous societies, with particular regard to education and rural issues.

The center offers academic degree programs and course work in cross-cultural studies. It designs and conducts basic and applied research projects, develops and evaluates alternative educational strategies for Alaska schools, and disseminates findings on current research in education and rural community development.

The center gives technical support and information to school districts, social service agencies, Native corporations, tribal governments, community colleges, and state and federal agencies in rural Alaska. It provides direction for improving educational, professional and community development opportunities for rural Alaskans, and it is a forum for examining those issues. Curricula incorporating Indigenous knowledge and Native ways of knowing are available through the Alaska Native Knowledge Network on the web (http://www.uaf.edu/ankn/).

For more information, visit the Center for Cross-Cultural Studies online (http://www.uaf.edu/cxcs/), call 907-474-1902 or email uaf-cxcs@alaska.edu.

Center for One Health Research

The UAF Center for One Health Research seeks to engage participants from UAF, Alaska and the circumpolar North to build and support as well as collaborate on education and research programs to address the large, multifocal issues facing these regions.

UAF is seeking to significantly expand these efforts by building interdisciplinary teams that will approach their investigations from a One Health perspective using constructionist, integrative approaches to help manage problems at their source rather than their outcome. Currently, we are building undergraduate, master’s and Ph.D. programs, here at UAF, focused on understanding and putting One Health concepts into practice.

For more information, visit the Center for One Health Research website (https://www.uaf.edu/onehealth/) or call 907-474-6610.

Geophysical Institute

Founded in 1948, the Geophysical Institute is a world-renowned center for the study of geophysics from the sun to the center of the Earth.

Proximity to the Arctic provides excellent opportunities for high-latitude geosciences. Major research programs are underway in space physics, atmospheric science, seismology, volcanology, satellite remote sensing, tectonics and sedimentation. The institute operates a rocket range for space research and a satellite ground station with processing and archiving capabilities for earth science support. In addition, the Alaska Volcano Observatory (http://avo.alaska.edu/), the Alaska Earthquake Center (http://earthquake.alaska.edu/), Alaska Climate Research Center (http://climate.gi.alaska.edu/) and the Alaska Center for Unmanned Aircraft Systems Integration (http://acuasi.alaska.edu/) are located at the institute. More than 75,000 books, 350 journals and other specialized media are maintained at the Keith B. Mather Library (http://www.gi.alaska.edu/facilities/mather-library/).

GI faculty and students benefit from the coupled activities of education and research. Undergraduate and graduate students find work in research programs while gaining academic credit toward their degrees. Most GI faculty have joint appointments, providing teaching opportunities at the College of Natural Science and Mathematics or the College of Engineering and Mines.

The institute focuses on the needs of Alaska, using geophysical data as the basis for decision-making tools. Examples include monitoring earthquakes and volcanic eruptions leading to hazard alerts to federal and state agencies. Remote sensing specialists use satellite and airborne
observations to help fight forest fires and monitor the health of Alaska's ecosystems. Institute scientists run computer simulations of tsunamis, aiding coastal communities in developing emergency evacuation plans. The institute has programs reaching out to K-12 schools with scientific curricula to educate and motivate potential science students.

More than 500 permanent field sites are operated throughout Alaska and are associated with the Poker Flat Research Range, the Alaska Earthquake Center, the Alaska Volcano Observatory and the Permafrost Laboratory.

For more information, visit the Geophysical Institute website (http://www.gi.alaska.edu) or call 907-474-7558.

Institute of Arctic Biology

The Institute of Arctic Biology is Alaska's principal research and educational unit for investigating high-latitude biological systems and providing policymakers knowledge to interpret, predict and manage biological systems through integration of research, student education and service to Alaska and the nation.

IAB research focuses on wildlife and conservation biology, including caribou, moose, polar bears and wildfowl; ecology, biogeochemistry, ecosystems and modeling of Arctic landscapes; climate change; physiology, including hibernation and thermogenesis; evolutionary biology; human, plant and animal genetics; plant-animal interactions; and human health disparities, nutrition and physical activity using a community-based, participatory approach.

IAB, established by the Alaska Legislature and the UA Board of Regents in 1962, is a world leader in Arctic research and is an academic gateway to study of the circumpolar Arctic. IAB administers several specialized research programs and facilities. Toolik Field Station (http://toolik.alaska.edu/) is an internationally recognized Arctic research station that annually hosts hundreds of scientists from around the world. The Center for Alaska Native Health Research (http://www.uaf.edu/canhr/) investigates weight, nutrition and health in Alaska Natives. The Bonanza Creek Long-Term Ecological Research program (http://www.lter.uaf.edu/) focuses on the long-term consequences of climate change and disturbance in Alaska boreal forests. The Alaska IDEA Networks of Biomedical Research Excellence program seeks to enhance biomedical research infrastructure in Alaska and fund research and student training focused on the interface of health, disease and the environment in people and animals. The Alaska Cooperative Fish and Wildlife Research Unit (http://www.akcfwr.uaf.edu/), part of the U.S. Geological Survey, promotes research and graduate student training in the ecology and management of fish and wildlife. The Alaska Geobotany Center (http://www.geobotany.uaf.edu/) is dedicated to understanding northern ecosystems through GIS, remote sensing and field experiments. The Spatial Ecology Lab provides state-of-the-art spatial analysis of ecological data and development, testing, and application of spatially explicit ecological models. IAB’s research greenhouse provides a year-round environment for research and education. The Core DNA Lab keeps UAF at the cutting edge of molecular analysis.

For more information, call 907-474-7640 or visit IAB’s website (http://www.iab.uaf.edu).

Institute of Marine Science

The Institute of Marine Science conducts marine science studies in the world’s oceans, with special emphasis on Arctic and Pacific sub-Arctic waters.

The faculty provide expertise in chemical, geological and physical oceanography and marine biology. Instruction is carried out through a minor in marine science and the graduate program in marine sciences and limnology in the College of Fisheries and Ocean Sciences, where degrees are offered at the master’s and doctoral levels.

Research efforts cover a wide range of disciplines, and some projects are components of large national and international cooperative programs that are worldwide in extent. Institute of Marine Science researchers also participate in the broad marine science community through service on a variety of national and international steering committees, boards, panels and advisory committees.

Research facilities include laboratories on the Fairbanks campus; the Seward Marine Center (https://www.uaf.edu/cfos/about-us/locations/seward/), a major coastal facility in Seward; the Kasitsna Bay Laboratory (https://www.uaf.edu/cfos/about-us/locations/kasitsna-bay/), a marine biology field station on Kachemak Bay; and the 261-foot glass class, ice-strengthened Research Vessel Sikuliaq. The Seward Marine Center supports a high-quality seawater system and excellent biological and chemical laboratories, and is the Sikuliaq's home port. The Alaska SeaLife Center, a private, state-of-the-art mammal and bird research and exhibition facility adjacent to the Seward Marine Center, also offers outstanding research facilities.

Institute of Marine Science research programs include the Virtual Tsunami Center; Alaska Natural Geography in Shore Areas, Census of Marine Life; Ocean Acidification Research Center; GAK1, Gulf of Alaska CTD Time Series; GOAIERP, Gulf of Alaska Integrated Ecosystem Research Program; RUSALCA, Russian-American Long-Term Census of the Arctic; and NEWNET/ORION, a radiation and climatological monitoring program through autonomous stations in Fairbanks, Seward, Nome, Kotzebue, Point Hope and Barrow. Laboratories and specialists cover areas including acoustics; algae, biological, chemical, fisheries, geological and physical oceanography; marine biology; mammals; pathology and ecosystems; remote sensing; seagrass studies; and underwater instrumentation.

The main offices, laboratories and computer facilities of IMS are located in the William A. O’Neill, Laurence Irving II and Arctic Health Research buildings on the west ridge of the Fairbanks campus. For more information, visit the IMS website (https://www.uaf.edu/cfos/research/institute-of-marine-scienc/) or call 907-474-7210.

Institute of Northern Engineering

The Institute of Northern Engineering is the research enterprise for the College of Engineering and Mines. INE faculty and students are engineering solutions for the world’s cold regions and beyond. The institute is home to many of the world’s leading researchers in cold weather and cold climate science and engineering. INE research and support span the engineering disciplines, offering studies and expertise in energy production, modeling and testing of mechanical systems, and environmental engineering and hydrology, as well as Arctic infrastructure, and mining and petroleum development. INE also participates in many cross-institute endeavors.
The institute includes the Alaska University Transportation Center (http://ine.uaf.edu/autc/), Mineral Industry Research Laboratory (http://ine.uaf.edu/mirl/), Petroleum Development Laboratory (http://ine.uaf.edu/pdl/), and Water and Environmental Research Center (http://ine.uaf.edu/werc/). WERC serves as the home of the Alaska Stable Isotope Facility. External grant and research support for INE programs has been more than $20 million annually since 2011. Most of INE’s researchers are full-time faculty in the College of Engineering and Mines, allowing research results to reach the classroom quickly.

INE offers diverse interdisciplinary research opportunities, challenging students to tackle wide-ranging engineering topics. Students gain knowledge and experience through hands-on engagement, setting them apart in the engineering job market.

To get started with your northern engineering research or studies, visit the INE website (http://www.uaf.edu/ine/) or call 907-474-5457.

International Arctic Research Center

The International Arctic Research Center was founded in 1997 as a cooperative research institute supported by both the U.S. and Japanese governments. Funding comes from the National Science Foundation, the Department of Energy, and the National Oceanic and Atmospheric Administration in the U.S., and from the Japan Agency for Marine-Earth Science and Technology, and Japan Aerospace Exploration Agency.

IARC serves as a focal point of excellence for international collaboration and provides the Arctic research community with an unprecedented opportunity to share knowledge about science in the Arctic, with an emphasis on global climate change research. IARC’s mission is to foster Arctic research in an international setting to help the nation and the international community to understand, prepare for, and adapt to the pan-Arctic impacts of climate change. In order to fulfill that mission, IARC provides an integrated science and service program for the benefit of the Arctic community.

Key elements of that program include analysis, synthesis and provision of Arctic climate information, including Arctic Ocean hydrographic information for scientists, students, decision-makers and the public; support and coordination of Arctic system modeling; and serving as a gateway or Arctic climate science coordination center for Alaska and the Arctic research community, with special attention to collaboration with international scientists and institutions.

IARC conducts an internationally popular summer school for young researchers and holds workshops on the integration and synthesis of research. IARC also supports several K–12 outreach projects.

IARC is located in the Akasofu Building. For more information, call 907-474-6016 or visit the IARC website (http://www.iarc.uaf.edu).

Juneau Center, College of Fisheries and Ocean Sciences

The Juneau Center facility is almost 31,000 square feet and has space for 13 faculty, four research assistants and 34 graduate students enrolled in the B.A., B.S., M.S. and Ph.D. fisheries and marine biology programs. Four UAS biology and marine biology faculty hold joint appointments in the UAF Department of Fisheries and supervise UAF graduate students based at the Juneau Center.

Faculty supervise students’ research on a broad array of biological problems in laboratories that specialize in quantitative stock assessment, biology and ecology of marine and freshwater species, molecular genetics, behavioral ecology, marine policy, and other fields of study. Laboratories at the Juneau Center include specialized facilities for seawater culture of marine animals and plants, quantitative (computer) analysis and fisheries stock assessment, geographic information systems, molecular genetics, salmon culture, and marine ecology. Juneau Center students also work in laboratories and facilities of other agencies in Juneau such as NOAA Fisheries’ Auke Bay Laboratory and Ted Stevens Marine Research Institute, the U.S. Geological Survey’s Glacier Bay Field Station, and the Alaska Department of Fish and Game’s Mark, Tag and Age Lab.

The center is adjacent to the National Marine Fisheries Service Ted Stevens Marine Research Institute. For more information, visit the Juneau Center website (http://www.uaf.edu/cfos/about-us/locations/juneau/) or call 907-796-5441.

UArctic

UAF is a founding member of UArctic (originally the University of the Arctic), a cooperative network of universities, colleges and other organizations committed to higher education and research in the North. The consortium’s goal is to create a strong, sustainable circumpolar region by empowering northerners and northern communities through education and shared knowledge. As part of this network, UAF participates in research and teaching partnerships and is a member of the student exchange program north2north, which provides opportunities for students from UArctic member institutions to experience different northern regions firsthand, and to share experiences face-to-face by allowing students to study at other UArctic institutions. For more information visit the UArctic website (http://www.uaf.edu/uarctic/) or call 907-474-6516.

University of Alaska Museum of the North

Voted the “Best Museum in Alaska,” the University of Alaska Museum of the North is a vital component of UAF’s research and education facilities as well as a thriving visitor attraction.

The museum’s research collections hold more than 1.4 million artifacts and specimens representing millions of years of biodiversity and more than 11,000 years of cultural traditions in the North. These collections form the foundation for the museum's exhibits and education programs and serve as a critical source of data for issues unique to the circumpolar North. Using the collections, university students work with the museum's faculty curators on original research aimed at interpreting the region’s dynamic environment and cultures.

The museum’s Rose Berry Alaska Art Gallery features 2,000 years of Alaska art — from ancient ivory carvings to contemporary sculptures. In the Gallery of Alaska, exhibit highlights include the state's largest gold display, extensive displays of Alaska Native art and artifacts, and Blue Babe, a 36,000-year-old mummified steppe bison.

The museum also hosts several special exhibits each year. In addition, the museum presents artists’ residencies, lectures and family programs on a variety of Alaska topics, and runs the museum store, featuring Alaska jewelry, books and Alaska Native artwork.
For more information, visit the University of Alaska Museum of the North online (http://www.uaf.edu/museum/) or call 907-474-7505.

The UAF Experience

UAF – Then and Now

UAF’s Fairbanks campus is four miles west of downtown Fairbanks, on a low ridge overlooking the Chena and Tanana river floodplains. Artifacts found on the bluff tell us tribal groups used the hill beginning perhaps 3,500 years ago. It offered a wide view of the flats below and probably served as a base camp for hunting and gathering.

THE EARLY YEARS

Gold discoveries in the early 1900s brought sudden changes to the Tanana Valley. In 1906 the hill where UAF now stands became part of a federal Agricultural Experiment Station, and in 1915 the U.S. Congress approved money and transferred a piece of land from this station to establish a school of higher education. The institution began as the Alaska Agricultural College and School of Mines, focusing on research and teaching in support of agriculture and mining. Two years later the Alaska Territorial Legislature added funding, and in 1922, when the first building was completed, the college opened its doors to students. In the first semester, a faculty of six offered 16 classes to a student body of 12. Commencement in 1923 consisted of a single graduate.

The institution quickly began to grow. In 1931 the federal government transferred the entire Agricultural Experiment Station to the college. In 1935 the Alaska Territorial Legislature changed the institution’s name to the University of Alaska to reflect the school’s expanding role in research, teaching and public service for all Alaska. By then, faculty and course offerings had grown to include liberal arts, science and engineering.

World War II brought a rapid influx of population and development to the territory. Wartime national awareness of the need for scientific polar research in the interests of defense and communications led to the establishment in 1946 of the Geophysical Institute. Since its inception, the GI has earned an international reputation for studies of the Earth and the physical environment at high latitudes. The university awarded its first Ph.D. degree to a geophysics student in 1955.

STATEHOOD AND BEYOND

The University of Alaska had a significant role in the statehood movement of the 1950s, when the Constitutional Convention was held on campus. The Alaska Constitution was drafted in what is now Constitution Hall and signed in stately Signers’ Hall, now the home of UAF student service and administrative offices. Alaska became the nation’s 49th state in 1959.

Research expanded broadly in the decade of the 1960s with the establishment of institutes in several disciplines. The Alaska Legislature created the Institute of Marine Science in 1960 and the Institute of Arctic Biology two years later. Since 1969 the Geophysical Institute has operated Poker Flat Research Range, providing launch facilities for NASA and the Department of Defense. Poker Flat is the only university-owned rocket range in the world.

In 1970 the university was designated a federal Sea Grant institution for marine research. Alaska Sea Grant develops and supports research, education, and outreach programs and partnerships to help sustain economic development, traditional cultural uses, and conservation of Alaska’s marine, estuarine and coastal watershed resources. Stations in Kodiak and Juneau are also actively involved in marine and fisheries research.

In 1972 the Alaska Legislature established the Alaska Native Language Center and provided operating funds. Since then the university has supported research, documentation and teaching of the state’s 20 Native languages.

To meet the need for expanding services for all Alaskans, the University of Alaska statewide system was created in 1975. Campuses in Anchorage and Juneau were assigned their own chancellors and central staffs, with the statewide administration and overall university president remaining in Fairbanks.

Meanwhile, the campus in Fairbanks continued to expand. The University of Alaska Museum of the North, one of the state’s most popular visitor attractions, moved into the Otto Geist Building in 1980. An expansion completed in 2006 nearly doubled the museum’s size and added a research center, learning center and Alaska art gallery. The museum’s unique collection offers the public a view of the rich and varied cultures of the North.

In 1981, UAF enrollment topped 5,000 students for the first time. The university also began to emphasize its shared scholarship and global education efforts in a series of agreements with schools in Japan, Denmark, Canada, India, People’s Republic of China, Russia and other countries. The institution branched out to include campuses in Bethel, Dillingham, Kotzebue, Nome and the Interior. Learning centers in other communities such as Fort Yukon, Galena, McGrath, Nenana, Tok and Unalaska provide additional education services to rural Alaskans.

UAF’s public service role is filled in part by the statewide Cooperative Extension Service with its 13 district offices. Public broadcasting stations KUAC FM and TV, the first public stations in the state, are headquartered at UAF.

In 1991 NASA named UAF a Space Grant institution for aerospace research, making it a Land, Sea and Space Grant institution, one of only a handful of triple-crown universities in the country.

TODAY

UAF’s colleges and schools offer degrees and certificates in 112 disciplines with a variety of vocational and technical programs. Graduate degrees are available in a wide range of academic study. UAF is internationally known for its Pacific Rim and circumpolar North research. It is consistently among the top 100 universities in the nation for funding from the National Science Foundation. UAF is the primary doctoral degree-granting institution in Alaska, offering Ph.D. degrees in anthropology, indigenous studies, several of the physical and natural sciences, mathematics and engineering. Master’s degrees are offered in almost 40 fields in the humanities, social sciences, Arctic and Northern studies, physical and natural sciences, and in professional fields such as engineering, justice, education and business administration. Interdisciplinary programs are possible for students who have a research focus in areas where UAF has faculty expertise and research facilities.

In 2017, UAF celebrated 100 years of making important contributions to Alaska, helping find solutions to the state’s unique challenges in areas like Arctic engineering, wildlife biology, health care and education. UAF helps power Alaska’s economy by turning students into professionals for Alaska’s workforce.
Students

Individualism and diversity are Alaska traditions. At UAF, students find not only a broad mix of cultures and ages, but also a climate of respect for individual rights and preferences. A student from a rural Alaska village can share knowledge and insights with others from places as distant as Tallahassee or Tokyo. UAF’s enrollment in fall 2019 was 8,207 students. Of those, 61% are female, 38% male and 1% are unknown; 88% are undergraduate and 12% are graduate students. UAF students hail from 49 states and 50 foreign countries.

Many UAF students are nontraditional. They study at night or after work, and balance schoolwork with family responsibilities. The university offers a wide variety of evening and weekend classes. UAF students can attend classes through distance delivery from remote areas of Alaska or from anywhere in the world. Using computers, telephones and the Internet, students can take courses or work toward their degrees without leaving home.

Many students take advantage of UAF’s exchange programs to study at colleges and universities around the world, or through the National Student Exchange program, which offers studies at universities throughout the United States. There are more than 100 different student organizations on campus, with that number going up all the time. Students produce the weekly Sun Star online news site, run KSUA, the campus radio station, and participate in scores of special interest groups.

Faculty

At UAF you find faculty members who are among the best in the country, and because of the low 10:1 student-faculty ratio, you receive more personal attention here than you would at almost any other public university in the nation. Once you have chosen a major, you will be assigned a faculty advisor from your academic department. Your advisor will help you choose classes each semester and will explain programs and requirements. You will get to know the faculty not just as professors, but as friends, advisors and mentors. Education is an individual process, different for each person. At UAF, you are an individual, not just a face in the crowd.

UAF’s Mission

The University of Alaska Fairbanks is a Land, Sea, and Space Grant university and an international center for research, education, and the arts, emphasizing the circumpolar North and its diverse peoples. UAF integrates teaching, research, and public service as it educates students for active citizenship and prepares them for lifelong learning and careers.

CORE THEMES

- **Educate**: Undergraduate and graduate students and lifelong learners
- **Research**: Create and disseminate new knowledge, insight, technology, artistic and scholarly works
- **Prepare**: Alaska’s career, technical and professional workforce
- **Connect**: Alaska Native, rural and urban communities by sharing knowledge and ways of knowing
- **Engage**: Alaskans through outreach for continuing education and community and economic development

Commitment to Quality

UAF has been accredited since 1934 by the Northwest Commission on Colleges and Universities. UAF acts continually to assess and improve the educational experience for its students. Students evaluate their teachers at the end of each semester; those student opinion reports are available online (https://asuaf.com/archives/teacher-and-course-evaluations/). Faculty and administrators evaluate courses in the core curriculum every year. Each degree program and certificate is assessed at least every five years. Results are used to change and improve the education provided by UAF. The learning outcomes expected for each degree program can be viewed on the provost’s website (http://www.uaf.edu/provost/assessment-review/assessment/).

UAF Facts and Figures

Here are some quick facts and figures about UAF. See more on the UAF Facts and Figures site (http://www.uaf.edu/facts/).

- Originally founded in 1917 when Alaska was still a territory, today UAF is America’s northernmost Land, Sea and Space Grant institution.
- UAF encompasses the central campus in Fairbanks; Bristol Bay Campus in Dillingham; Chukchi Campus in Kotzebue; Interior Alaska Campus, covering the Interior; Kuskokwim Campus in Bethel; Northwest Campus in Nome; and the Community and Technical College in Fairbanks.
- UAF’s geographically diverse student body represents 49 states and 50 foreign countries.
- UAF offers 141 degrees and 36 certificates in 113 disciplines.
- As America’s Arctic university, UAF offers a number of unique programs and degrees particularly focused on the biology, climate, natural resources and peoples of northern latitudes, the circumpolar North and the Pacific Rim.
- The UAF mascot is the Nanook, a derivation of “nanuq,” the Inupiaq Eskimo word for polar bear. Up until the mid-70s, the men’s basketball team was known as the “Flying Nanooks” because of the regular, and long, airplane rides they took in order to compete with other college teams. Since 1963 all University of Alaska Fairbanks sports teams have been called Nanooks.

Degrees Conferred, Spring 2019

- 137 licensures and occupational endorsements
- 1,048 certificates and associate or baccalaureate degrees
- 248 master’s and doctoral degrees

Student Profile, Fall 2019

<table>
<thead>
<tr>
<th>ENROLLMENT</th>
<th>5,413</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fairbanks Campus</td>
<td></td>
</tr>
<tr>
<td>Community and Technical College</td>
<td>2,531</td>
</tr>
<tr>
<td>Bristol Bay Campus</td>
<td>400</td>
</tr>
<tr>
<td>Chukchi Campus</td>
<td>211</td>
</tr>
<tr>
<td>Interior Alaska Campus</td>
<td>349</td>
</tr>
<tr>
<td>Kuskokwim Campus</td>
<td>440</td>
</tr>
<tr>
<td>Northwest Campus</td>
<td>342</td>
</tr>
<tr>
<td>eCampus</td>
<td>3,717</td>
</tr>
<tr>
<td>University of Alaska Fairbanks (total¹)</td>
<td>8,207</td>
</tr>
</tbody>
</table>

¹ Some students attend more than one campus and are not counted twice in the total.

<table>
<thead>
<tr>
<th>Gender</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>61%</td>
</tr>
<tr>
<td>Male</td>
<td>38%</td>
</tr>
<tr>
<td>Unknown</td>
<td>1%</td>
</tr>
</tbody>
</table>
### Alaska Native/American Indian

- Undergraduate: 21%
- Graduate: 12%
- Median Age: 26

### Estimated 2020-2021 UAF Annual Costs

#### FIRST-YEAR STUDENTS AND SOPHOMORES

<table>
<thead>
<tr>
<th></th>
<th>Alaska Resident</th>
<th>Non-Resident</th>
<th>WUE²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition and fees³</td>
<td>$8,970</td>
<td>$26,640</td>
<td>$12,480</td>
</tr>
<tr>
<td>Room and board</td>
<td>$10,540</td>
<td>$10,540</td>
<td>$10,540</td>
</tr>
<tr>
<td>ANNUAL TOTAL</td>
<td>$19,510</td>
<td>$37,180</td>
<td>$23,020</td>
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</table>

#### JUNIORS AND SENIORS

<table>
<thead>
<tr>
<th></th>
<th>Alaska Resident</th>
<th>Non-Resident</th>
<th>WUE²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition and fees³</td>
<td>$10,470</td>
<td>$28,140</td>
<td>$13,980</td>
</tr>
<tr>
<td>Room and board</td>
<td>$10,540</td>
<td>$10,540</td>
<td>$10,540</td>
</tr>
<tr>
<td>ANNUAL TOTAL</td>
<td>$21,010</td>
<td>$38,680</td>
<td>$24,520</td>
</tr>
</tbody>
</table>

#### GRADUATE STUDENTS

<table>
<thead>
<tr>
<th></th>
<th>Alaska Resident</th>
<th>Non-Resident</th>
<th>WUE²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition and fees³</td>
<td>$10,620</td>
<td>$21,222</td>
<td></td>
</tr>
<tr>
<td>Room and board</td>
<td>$10,540</td>
<td>$10,540</td>
<td></td>
</tr>
<tr>
<td>ANNUAL TOTAL</td>
<td>$21,160</td>
<td>$31,762</td>
<td></td>
</tr>
</tbody>
</table>

² Western Undergraduate Exchange (see Financial Aid (p. 68) page)
³ Includes consolidated, UA facilities and UA network fees. Does not include specific course fees, health insurance, books, supplies, parking, travel, miscellaneous expenses or special costs associated with international or exchange students. Costs are subject to change.

### Catalog Addendum

There are no catalog addenda at this time.
GETTING STARTED

Applying for Admission: Occupational Endorsement Programs

When to Apply

Applications for admission to occupational endorsement programs are due no later than June 15 for fall semester, Nov. 1 for spring semester and May 1 for summer semester.

How to Apply

To be admitted to UAF, a student must:

1. Submit an application for admission
   Apply online (http://www.uaf.edu/admissions/). Applications must be received before the published deadlines. There is no fee to apply for an occupational endorsement program.

2. Submit transcripts
   Most applicants to occupational endorsement programs are not required to submit high school, GED or college transcripts, but all are strongly encouraged to do so. Transfer students who want to receive credit for prior work must submit official transcripts and need to work with their advisor to request courses that will apply toward the occupational endorsement.

Admission Requirements

For admission to occupational endorsement programs, official documentation must be provided showing that the applicant meets program age requirements by the first day of the semester (see individual program descriptions (https://catalog.uaf.edu/endorsements/occupational-endorsement-programs/) for minimum age requirements).

Program Completion

Occupational endorsement programs require between 9 and 29 credit hours that will be posted to the student's transcript upon completion and approval by the academic department. The credit hours may be applied to other undergraduate degree programs when applicable. Some occupational endorsement programs are not eligible for financial aid. Students should check with an advisor for the specific requirements for their program.

Where to Get More Information

Office of Admissions
University of Alaska Fairbanks
2nd floor, Signers’ Hall
P.O. Box 757480
Fairbanks, AK 99775-7480
Email: uaf-admissions@alaska.edu
Telephone: 907-474-7500
Toll free: 800-478-1823
Fax: 907-474-7097

Applying for Admission: Certificate or Associate Degree Programs

When to Apply

Applications for admission to certificate or associate degree programs are due no later than June 15 for fall semester, Nov. 1 for spring semester and May 1 for summer semester.

High school seniors are encouraged to apply for admission as early as the first semester of their senior year and should provide a high school transcript including a list of courses in progress. Transfer students should apply at least three to four months before the beginning of the semester in which they plan to enroll to allow for additional time for processing of transfer credit, and should submit transcripts for all colleges attended.

How to Apply

To be admitted to UAF, a student must:

1. Submit an application for admission
   Apply online (http://www.uaf.edu/admissions/). Applications must be received before the published deadlines, along with a $40 nonrefundable application fee. Applications submitted after the published deadlines may not be processed by the beginning of the semester.

2. Submit transcripts
   Most applicants to certificate and associate degree programs are not required to submit high school, GED or college transcripts, but all are strongly encouraged to do so. Transfer students who want to receive credit for prior work must submit official transcripts.

3. Submit official test results
   Certificate and associate degree applicants must submit the results of the ACT, SAT or ACCUPLACER test taken within the last two years for English and composition placement. Students will also need to submit ALEKS test scores taken within the last year for placement into math, or any course that requires a math prerequisite. Contact Testing Services at 907-474-5277 or your high school guidance office for information concerning the ACT, SAT or ACCUPLACER tests. Visit here to take the ALEKS test (https://www.alaska.edu/aleks/+).

INTERNATIONAL STUDENTS

See Applying for Admission: International Students (p. 32) page for additional information.

Admission Requirements

For admission to associate/certificate programs, official documentation must be provided showing that the applicant:

A. is at least 18 years old, or
B. has a high school diploma, or
C. has a General Educational Development (GED) diploma.

Applicants under the age of 18 who will not have a high school diploma or GED before the start of their first semester are not admissible but may take courses as a nondegree student. Please note that in order to qualify for federal financial aid, students must have either a high school diploma or a GED.
TRANSFER STUDENTS

Transfer students are eligible for admission if they left their previous accredited institution(s) in good standing. Admission status will be determined on an individual basis if a student attended an unaccredited/nonregionally accredited postsecondary institution.

HIGH SCHOOL STUDENTS

High school students may take classes at UAF. There are two enrollment options for students interested in certificate or associate degree programs: Secondary Student Enrollment and TECH PREP. Both have specific registration requirements but do not require admission to UAF.

HOME-SCHOoled STUDENTS

Home-schooled students may be admitted to an associate or certificate program if the student is at least 18 years old, holds a GED, graduated from a state-sponsored correspondence program with a high school diploma, or with the approval of the director of admissions.

After Acceptance

Qualified applicants will receive a letter of acceptance once all items are received and evaluated. Acceptance to UAF is final only when the Office of Admissions has approved all necessary credentials.

For additional program-specific application requirements, please see program descriptions (https://catalog.uaf.edu/certificates-associate/ summary-of-certificate-and-associate-degree-requirements/).

REQUEST TO POSTPONE

An offer of admission to UAF is valid for the semester for which the applicant applied. Requests to postpone admission until a later semester may be made to the Office of Admissions. Admission may be postponed for up to one calendar year.

READMISSION OF FORMER DEGREE STUDENTS

Undergraduate degree students who choose not to enroll for a semester or more may be eligible to re-enroll in their original degree program without reapplying for admission. Students remain eligible to register for classes if:

- they have not been academically disqualified,
- they have not attended a non-UA institution since they were last enrolled at UAF,
- their lapse in enrollment is less than two years, and
- they are continuing with the same degree program.

Students who meet all of the above requirements should consult with their academic advisor and register for classes. Students who do not meet all of these requirements should submit a new application for admission along with the $40 application fee and transcripts of any non-UA course work taken. Students who are unsure about their status should contact the Office of Admissions.

FRESH START FOR RETURNING STUDENTS

Fresh Start can offer a new beginning for students who performed poorly at UAF and have taken at least a two-year break from classes. Students who withdrew from school or were dismissed for academic reasons may apply for readmission through the Fresh Start program and request that their entire prior academic record be disregarded. Students who qualify for Fresh Start will begin their college study anew, with no credits attempted or earned and no quality points reflected in future GPA calculations. Fresh Start can be used only once.

All prior course work will remain part of the student’s overall academic record and appear on transcripts, but none of the previously earned credits can be used in a new program. These credits will be included only in GPA computations for graduation with honors (see Graduation with Honors (p. 107)). A student admitted under Fresh Start may be allowed advanced standing or a waiver of requirements just as any other student, but will not be allowed credit by exam for courses lost in Fresh Start. Students interested in Fresh Start should contact the Office of Admissions.

READMISSION OF SERVICE MEMBERS

The Higher Education Opportunity Act of 2008 requires that students who left school to serve in the uniformed services be readmitted into the same program with the same standing they had when they left. UAF allows for special readmission of these students. More information is available at Military and Veteran Services (http://www.uaf.edu/veterans/).

Where to Get More Information

Office of Admissions
University of Alaska Fairbanks
2nd floor, Signers’ Hall
P.O. Box 757480
Fairbanks, AK 99775-7480
Email: uaf-admissions@alaska.edu
Telephone: 907-474-7097
Toll free: 800-478-1823
Fax: 907-474-7097

Applying for Admission: Bachelor’s Degree Programs

When to Apply

First-year and transfer students apply for admission to bachelor’s degree programs by June 15 for fall semester, Nov. 1 for spring semester and May 1 for summer semester. Applications are available for admission one year prior to the deadline: June 16 for fall semester, Nov. 2 for spring semester and May 2 for summer semester.

Applications are processed in the order they are received. Applications received after the published deadlines may not be processed by the beginning of the semester.

High school seniors are encouraged to apply for admission as early as the first semester of their senior year and should provide a high school transcript including a list of courses in progress, and are encouraged to submit ACT and/or SAT scores. Transfer students should apply at least three to four months before the beginning of the semester in which they plan to enroll to allow for additional time for processing of transfer credit, and should submit transcripts for all colleges attended.

How to Apply

To be admitted to UAF, a student must:
1. Submit an application for admission
   Apply online at the Office of Admissions website (https://www.uaf.edu/admissions/). Applications must be received before the published deadlines, along with a $50 nonrefundable application
fee. Applications submitted after the published deadlines have a $75 nonrefundable application fee and are processed in the order they are received. They may not be processed by the beginning of the semester.

2. Submit transcripts
   To be considered official, transcripts must arrive in sealed envelopes from each institution attended.
   **High school transcripts** — Applicants with no college course work or fewer than 30 semester credit hours of college credit must submit official high school transcripts. Students currently enrolled in high school may submit unofficial, in-progress transcripts for admissions review. Acceptance becomes final when official transcripts with degree earned are received.
   **College transcripts** — Applicants who have college-level course work may submit unofficial, in-progress college or university transcripts to UAF for admissions review, but will need to submit official transcripts for applying transfer credit.
   **International** — See Applying for Admission: International Students (p. 32) page for additional information.

3. Submit official test results
   First-year and transfer applicants with fewer than 30 semester credit hours are encouraged to submit the results of either the ACT or the SAT examination. Please note that the ACCUPLACER, ASSET, COMPASS, ALEKS or other placement tests do not satisfy this requirement. Applicants are also encouraged to send in official results of Advanced Placement (AP), International Baccalaureate (IB) and/or CLEP scores.

**INTERNATIONAL STUDENTS**
See Applying for Admission: International Students (p. 32) page for additional information.

**Admission Requirements**
For admission to baccalaureate-level programs, applicants must:

- a. have a high school diploma, and
- b. pass the 16-credit high school core curriculum (see High School Entrance Requirements (p. 29)) with a GPA of at least 2.5 and
- c. have a cumulative GPA of 2.5.

Admission to a specific bachelor’s degree program is based on a combination of your high school GPA and completion of specific high school courses. See High School Entrance Requirements (p. 29) to specific colleges and schools within the university.

**HIGH SCHOOL ENTRANCE REQUIREMENTS FOR ALL BACHELOR’S DEGREE PROGRAMS**
**High School Core Curriculum**
Required for all first year students; 2.50 GPA in core; 16 credits total, which must include:

<table>
<thead>
<tr>
<th>English</th>
<th>Math</th>
<th>Social Sciences</th>
<th>Natural/Physical Sciences</th>
<th>Foreign Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 cr</td>
<td></td>
<td></td>
<td></td>
<td>2 cr</td>
</tr>
<tr>
<td></td>
<td>3-4 cr in college preparatory mathematics (selected from Algebra I, II, geometry, trigonometry, elementary functions, precalculus or calculus)</td>
<td>3-4 cr</td>
<td>3-4 cr (includes 1-cr lab science course in biology, chemistry or physics)</td>
<td></td>
</tr>
</tbody>
</table>

**College of Engineering and Mines • College of Natural Science and Mathematics • College of Fisheries and Ocean Sciences**

<table>
<thead>
<tr>
<th>4 cr</th>
<th>4 cr</th>
<th>3-4 cr</th>
<th>Same as high school core</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algebra-2 cr; Geometry-1 cr; Trigonometry-1/2 cr; At least an additional 1/2 cr of advanced math is recommended for computer science, mathematics, physics, statistics and engineering.</td>
<td>Physics or Chemistry-1 cr; Natural Sciences-1 cr; Elective-1cr. Both physics and chemistry are strongly recommended for engineering.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**College of Liberal Arts • School of Management • College of Rural and Community Development • General Studies (undecided or exploratory)**

<table>
<thead>
<tr>
<th>4 cr</th>
<th>3-4 cr</th>
<th>Same as high school core</th>
<th>Same as high school core</th>
</tr>
</thead>
<tbody>
<tr>
<td>Same as high school core; School of Management students should be well-prepared in mathematics with at least Algebra II, but precalculus or higher is preferred.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 Recommended but not required.

**PRE-MAJOR**
Students who have not met the minimum requirements for admission to a baccalaureate degree program will be admitted to pre-major in general studies.

Students will be changed to major status when they are in good standing and have completed 14 credits at the 100 level or above with a C (2.0) average or higher; 9 of the 14 credits must satisfy the general education requirements.
GENERAL STUDIES
Incoming students are not required to choose a degree program and have the option of choosing general studies - undeclared. These students are advised by the Academic Advising Center and will work with them on transitioning into a declared major. Students receiving GI assistance or veterans' benefits may be required to change to a declared major to keep their benefits award.

TRANSFER STUDENTS
A transfer student is defined as someone coming into the university who has been a degree student at any other institution prior to the semester applied for. Students with more than 30 university semester credit hours must only submit prior college transcript(s). Students with less than 30 semester credits must submit high school transcripts and are encouraged to submit test scores (ACT or SAT) in addition to their college transcripts, and will be evaluated based on all transcripts. Transfer students are eligible for admission to a bachelor's program if they have a 2.0 GPA in their previous course work and left their previous institution(s) in good standing. If applying to a technical or scientific program, students may need to present a higher grade average and proof that they have completed appropriate background courses before they will be admitted. Admission status for students who have attended an unaccredited postsecondary institution will be determined on an individual basis. See Transferring Credits (p. 34) for more information.

PROBATIONAL ACCEPTANCE
Applicants with previous college course work may be admitted with probationary status or an academic warning if their cumulative or most recent term grade point average is less than C (2.0).

HIGH SCHOOL STUDENTS
High school students (https://uaf.edu/admissions/apply/highschool.php) may take classes at UAF. The Alaska Higher Education Admission Decision (AHEAD) program requires formal admittance to UAF. Other enrollment options are Secondary Student Enrollment, Advantage Program and TECH PREP; have specific registration requirements but do not require admission to UAF.

AHEAD PROGRAM
The Alaska Higher Education Admission Decision (AHEAD) program allows qualified high school students to be formally admitted to UAF as general studies students. AHEAD students are assigned an academic advisor and follow the registration timeline for degree students. To qualify, students must have completed three-fourths of their high school core curriculum and have a cumulative 3.0 GPA or higher. Students who wish to apply to the AHEAD program may get a program application from the Office of Admissions (https://uaf.edu/admissions/apply/highschool.php).

ADVANTAGE PROGRAM
The Advantage program (https://ecampus.uaf.edu/highschool/) provides dual-enrollment students access to a unique virtual middle college opportunity featuring UAF's high-quality online courses for all Alaskans. The program offers comprehensive student support for all high school students and competitive package pricing to students from our partner districts. Students interested in the Advantage program can contact UAF eCampus for help getting started.

HOME-SCHOoled STUDENTS
Home-schooled students who have gone through a state-recognized program and have a valid high school diploma may be admitted to a bachelor's program according to UAF admission standards. See How to Apply section (p. 28) for more information.

For home-schooled students who have not gone through a state-recognized program, admission to a bachelor's degree is through an individual review by the director of admissions (or a designee). Applicants are encouraged to submit scores from either the SAT or ACT. Additional supporting documentation, such as letters of recommendation, may be requested for review by the director of admissions. In some cases, files will be shared with deans, department chairs or faculty for further review.

Students who have not met the minimum requirements for admission to a bachelor's degree program may be admitted to pre-major status. Students will be changed to major status when their admissions file is complete, they are in good standing, and they have completed 14 credits at the 100 level or above with a C (2.0) average or higher, 9 credits of which must satisfy baccalaureate general education requirements (GER).

After Acceptance
INCOMPLETE AND FINAL ACCEPTANCE
Qualified applicants will receive a letter of acceptance once all required items are received and evaluated. Qualified applicants who are in their last year of high school or are attending another college will receive incomplete acceptance. Acceptance becomes final when the Office of Admissions receives official transcripts showing the student has satisfactorily completed all work in progress and that a high school diploma or GED has been earned. Acceptance to UAF is final only when the Office of Admissions has reviewed all necessary credentials.

REQUEST TO POSTPONE
An offer of admission to UAF is valid for the semester for which the applicant applied. Requests to postpone admission until a later semester must be made in writing to the Office of Admissions. Admission may be postponed for up to one calendar year. Students are required to notify the Office of Admissions if they are attending another school outside the University of Alaska statewide system.

APPLYING FOR A SECOND BACHELOR'S DEGREE
Upon official acceptance to a UAF undergraduate degree program, a student who earned a bachelor's degree from a regionally accredited institution will be considered to have completed the equivalent of the baccalaureate general education requirements (GER).

READMISSION OF FORMER DEGREE-SEEKING STUDENTS
Undergraduate degree students who choose not to enroll for a semester or more may be eligible to re-enroll in their original degree program without reapplying for admission. Students remain eligible to register for classes if:

- they have not been academically disqualified,
- they have not attended a non-UA institution since they were last enrolled at UAF,
- their lapse in enrollment is less than two years, and
- they are continuing with the same degree program.

Students should be aware that poor academic performance at other campuses in the UA system may affect academic standing upon their return to UAF. Students who meet all of the above requirements should consult with their academic advisor and register for classes. Students who do not meet all of these requirements should submit an
undergraduate application for admission along with the application fee and transcripts of any non-UA course work taken. Students who are unsure about their status should contact the Office of Admissions.

Fresh Start for Returning Students
Fresh Start can offer a new beginning for students who performed poorly at UAF when they last attended and who have taken at least a two-year break from classes. Those who withdrew from school or were dismissed for academic reasons may apply for readmission and request that their entire prior academic record be disregarded. Students who qualify for Fresh Start begin their college study anew with no credits attempted or earned, and no quality points reflected in future GPA calculations. Fresh Start can be used only once.

All prior course work will remain part of the student’s overall academic record and appear on transcripts, but none of the previously earned credits can be used in a new program. These credits will be included only in GPA computations for graduation with honors (see Graduation with Honors (p. 156)). A student admitted under Fresh Start may be allowed advanced standing or a waiver of requirements just as any other student, but will not be allowed credit by exam for courses lost in Fresh Start.

Readmission of Service Members
The Higher Education Opportunity Act of 2008 requires that students who left school to serve in the uniformed services be readmitted into the same program with the same standing they had when they left. UAF allows for special readmission of these students. More information is available at the Military and Veteran Services website (https://www.uaf.edu/veterans/).

Where to Get More Information
Office of Admissions
University of Alaska Fairbanks
2nd floor, Signers’ Hall
P.O. Box 757480
Fairbanks, AK 99775-7480
Email: uaf-admissions@alaska.edu
Telephone: 907-474-7500
Toll-free: 800-478-1823
Fax: 907-474-7097

Applying for Admission: Graduate Degree Programs

When to Apply
Applicants should apply to a graduate degree program at least six to nine months before the beginning of the semester in which they plan to enroll. Most departments require earlier submission of credentials for acceptance to their program. Contact the department for specific deadlines. The number of students accepted for graduate study is limited.

Graduate students are strongly encouraged to apply early. Applications received near deadline will be processed as time permits or may be considered for the following semester.

How to Apply
To be admitted to UAF, a student must:

1. Submit an application for admission
   Apply online (http://www.uaf.edu/admissions/). Applications must be received before the published deadlines, along with a $75 nonrefundable application fee. Applications submitted after the published deadlines have a $100 nonrefundable application fee. Departmental deadlines may allow for applications past the published deadlines.

2. Submit official transcripts
   The Office of Admissions requires official transcripts of all college-level course work. To be considered official, transcripts must arrive in sealed envelopes or by a secure electronic service from each institution attended.

Transcripts for International Applicants
See Applying for Admission: International Students (p. 32) page for additional information.

3. Submit official test results
   Not all departments require Graduate Record Exam (GRE) scores if the student has earned a GPA of 3.0 or higher. The UAF school code for the GRE is 4866. Refer to the admission requirements of your prospective degree program to determine which tests are required.

4. Submit resume/curriculum vitae
   Include work and research experience, publications, patents, honors, professional and civic memberships, and foreign travel.

5. Submit statement of academic goals
   Write a statement indicating why study is desired in a particular program. Include qualifications and educational experience. For applicants to M.Ed. or education licensures/certificate programs, a four-to-five-page self-evaluation essay is required.

6. Submit three letters of recommendation
   Send at least three letters of recommendation from people able to vouch for the applicant’s academic work, character and ability to undertake graduate study and research.

ADDITIONAL APPLICATION INFORMATION

- Master of Fine Arts Applicants
  Master of fine arts applicants must submit writing samples when applying for admission to the creative writing program. An art portfolio (usually slides) must be submitted when applying to the program in art.

- Interdisciplinary Applicants
  Submit a Proposed Graduate Study Plan (https://www.uaf.edu/gradsch/prospective/interdisciplinary-program/admissions-procedure/) and a comprehensive research proposal. Applicants must also obtain a commitment from UAF faculty members to serve as an advisory committee. Contact the Graduate School for specific interdisciplinary procedures.

- International Students
  See Applying for Admission: International Students (p. 32) page for additional information.

- Students in Western Regional Graduate Programs
  Students from Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington and Wyoming may be eligible for resident tuition through the Western Regional Graduate Program/Western Interstate Commission for Higher Education. This program is for students pursuing a graduate degree in administration of justice, Arctic and Northern studies, or rural development. For more information about this program, contact the Graduate School (http://www.uaf.edu/gradsch/) at 907-474-7464 or uaf-grad-school@alaska.edu. Students with questions may also contact the WICHE Student Exchange.
Applying for Admission: International Students

When to Apply
International students may apply for admission to associate, bachelor and graduate-level degrees. Applications for admission from international students are due no later than March 1 for the fall semester and Sept. 1 for the spring semester. For graduate applicants, it is important to note that certain departments maintain earlier deadlines.

Admission Requirements
More information regarding the process for application to associate, bachelor or graduate programs can be found in the Getting Started (p. 27) section.

UNDERGRADUATE APPLICANTS
To be admitted to UAF, a student must:

1. Apply online (https://uaf.edu/admissions/apply/international.php). Applications must be received before the published deadlines, along with a $50 nonrefundable application fee. Applications submitted after the published deadlines have a $75 nonrefundable application fee and are processed in the order they are received.

2. Send official secondary school and/or university transcripts to World Education Services (WES) (http://www.wes.org/). University course work also needs to be evaluated with a comprehensive course-by-course credential report. Transcripts from Canadian institutions (excluding Quebec) are exempt from this requirement; they may be sent directly from the issuing institution.

3. Submit certified official secondary school and/or university transcripts and English translations. It is required that official transcripts of all high school and/or college-level course work be signed and sealed by a registration official of the institution(s) attended.

4. Submit official TOEFL or IELTS test scores.

5. Submit a copy of the passport identification page.

6. Complete UAF’s financial statement form and provide supporting documentation showing adequate funding to cover all expenses at UAF, including round-trip transportation to Alaska. ¹

GRADUATE APPLICANTS
To be admitted to UAF, a student must:

1. Apply online (https://uaf.edu/admissions/apply/international.php). Applications must be received before the published deadlines, along with a $75 nonrefundable application fee. Applications submitted after the published deadlines are only accepted upon a department’s request and have a $100 nonrefundable application fee.

2. Review your department’s department-specific requirements and application deadlines.
3. Submit certified official university transcripts and English translations. To be considered official, transcripts must arrive in sealed envelopes from each institution attended. If the transcript does not show that a bachelor’s degree has been or will be awarded, a diploma must also be sent.

4. Submit official GRE or GMAT test scores. Not all departments require GRE or GMAT scores if the student has earned a GPA of 3.0 or higher. Refer to the admission requirements of your prospective degree program to determine which tests are required.

5. Submit a resume/curriculum vitae. Include work and research experience, publications, patents, honors, professional and civic memberships, and foreign travel.

6. Submit a statement of academic goals. Write a statement indicating why study is desired in a particular program. Include qualifications and educational experience. (For applicants to M.Ed. programs or education licensures/certificates, a four- to five-page self-evaluation essay is required.)

7. Submit three letters of recommendation. Send at least three letters of recommendation from people able to vouch for the applicant’s academic work, character and ability to undertake graduate study and research.

8. Submit official TOEFL or IELTS test results.

9. Submit a copy of the passport identification page.

10. Complete UAF’s financial statement form and provide supporting documentation showing adequate funding to cover all expenses at UAF.¹

¹ Not an admission requirement, but required to determine visa eligibility.

**Required Funding Amounts**

The minimum estimated cost for one school year at UAF for an international student is $38,456 for undergraduate students and $38,052 for graduate students. (Students taking College of Engineering and Mines and School of Management courses: $39,800 undergraduate and $39,906 graduate.) This covers university fees, room and board on campus, books, health insurance, and a reasonable amount of personal expenses. It does not include transportation to and from Alaska, summer living or winter clothing costs. Add approximately $4,500 for summer living expenses.

Residents of countries which hold approved sister city/sister province agreements qualify for resident tuition. A complete list of sister cities and provinces is listed below. Students on an F-1 visa who are not from a UA sister city or province are not eligible for resident tuition. For international students who are residents of a sister city, the estimated cost for one school year at UAF is $24,872 for an undergraduate and $27,864 for a graduate student. (Students taking College of Engineering and Mines and School of Management courses: $26,216 undergraduate and $29,718 graduate.)

**UA SISTER CITIES AND PROVINCES**

<table>
<thead>
<tr>
<th>Country</th>
<th>City or Province</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Darwin</td>
</tr>
<tr>
<td>Canada</td>
<td>Inuvik, Northwest Territory and Whitehorse, Yukon Territory</td>
</tr>
<tr>
<td>China</td>
<td>Harbin, Heilongjiang Province</td>
</tr>
<tr>
<td>Great Britain</td>
<td>Whitby, England</td>
</tr>
<tr>
<td>India</td>
<td>Pune</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Country</th>
<th>City or Province</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td>Chitose, Hokkaido Prefecture, Kanayama, Nemuro, Noshiro, Obihiro, Saroma, Teshio</td>
</tr>
<tr>
<td>Korea</td>
<td>Incheon</td>
</tr>
<tr>
<td>Mongolia</td>
<td>Erdenet City</td>
</tr>
<tr>
<td>Norway</td>
<td>Hammerfest, Mo, Tromsø</td>
</tr>
<tr>
<td>Philippines</td>
<td>Camiling</td>
</tr>
<tr>
<td>Russia</td>
<td>Khabarovsk Region, Magadan, Mirny, Noglicki, Okha, Providenya, Vladivostok, Yakutsk, Yelisovo</td>
</tr>
<tr>
<td>Taiwan</td>
<td>Chiayi Township</td>
</tr>
</tbody>
</table>

**Immigration Requirements**

Once a student has been accepted to UAF, International Programs and Initiatives will issue a Form I-20, which must be presented at a U.S. embassy or consulate in the country of citizenship in order to obtain an F-1 (student) visa. The I-20 form requires the university to certify to U.S. immigration agencies that a student has been accepted for full-time enrollment and has sufficient funds to meet estimated expenses for an academic program.

If a student is already in the United States on an F-1 visa, the SEVIS record may be transferred as long as the record is in SEVIS active status.

**English Proficiency Requirements**

Students on an F-1 visa are required to submit scores from the TOEFL (Test of English as a Foreign Language) or the IELTS (International English Language Testing System) exam. Some permanent residents (green card holders) are not required to submit TOEFL or IELTS scores (see exceptions below). English proficiency may be demonstrated by:

1. A minimum TOEFL score of 79.
2. A minimum IELTS score of 6.5.
3. Completion of secondary education in Great Britain, New Zealand, Australia or Canada (excluding Quebec).

Requests for exception to this policy may be submitted via email to the Office of Admissions. Acceptable grounds for waivering this requirement may include:

1. Successful completion (C or higher) of a college-level, non-ESL English composition course.
2. A comparable score on another approved exam such as the ACT, SAT or ACCUPLACER exam.
3. Long-term permanent residents of the U.S. who are able to provide adequate documentation (transcripts, test scores, etc.) demonstrating academic readiness for WRTG 111x.

**Request to Postpone**

If applicants are unable to attend, they must notify the Office of Admissions and International Programs and Initiatives. Students may request to postpone their admission for up to one calendar year. For graduate applicants, acceptance is not guaranteed for a future semester. An updated financial statement and current supporting financial documents will be required from all students.
Where to Get More Information

Office of Admissions
University of Alaska Fairbanks
2nd floor, Signers’ Hall
P.O. Box 757480
Fairbanks, AK 99775-7480
Email: uaf-admissions@alaska.edu
Telephone: 907-474-7500
Toll free: 800-478-1823
Fax: 907-474-7097

Transferring Credits

Overview and Alternate Ways to Earn Credit

Credit accepted at UAF that has been earned from other regionally accredited institutions, through military educational experiences, or credit accepted by special approval is considered transfer credit. Where possible, transfer credit is equated with UAF courses. See the Table of GER Substitutions: UA System (p. 36) for a list of substitutions within the University of Alaska system and the Table of GER Substitutions: Non-UA Institutions (p. 35) for substitutions from non-UA institutions.

UAF’s transfer credit resource website (https://uaonline.alaska.edu/banprod/owa/bwsk2tcr.P_Tcs_Selmau/) shows most courses previously evaluated by UAF and is an unofficial reference for undergraduate students who are considering transferring to UAF. An official evaluation of transfer credits will be provided after formal application and admission to a degree program at UAF.

Alternate Ways to Earn Credit

For other options for earning credit to include UAF Advanced Placement Testing, Credit for Prior Learning, UAF Credit by Exam & Competency Testing, College-level Examination Program (CLEP), College Board Advanced Placement Exams (AP), International Baccalaureate (IB), Credit for Language Testing, DANTES-DSST (Standardized Subject Tests) see the Alternate Ways to Earn Credit (p. 38) section.

Regulations

The following regulations apply to transfer of credit:

1. Students are eligible for transfer of credit when they have been admitted to an undergraduate degree or certificate program.
2. The applicability of transfer credit to a student’s major and/or minor requirements is subject to approval by the major and/or minor department. Transfer students must fulfill the UAF graduation and residency requirements, including those specific to their programs.
3. Undergraduate credits earned at the 100 level or above with a C- grade or higher at institutions accredited by one of the six regional accrediting agencies will be considered for transfer. Transfer credit is not granted for courses with doctrinal religious content or for graduate courses (for undergraduate programs).
   • Note: For information about transferring graduate credits to meet graduate program requirements, see Transfer Credit (p. 290) under How to Earn a Graduate Degree or contact the Graduate School at uaf-grad-school@alaska.edu or 907-474-7464.
4. Transfer credit is awarded for courses in which the student received grades of C- or better. Instructor permission may be required for purposes of registration if the transfer credit courses have not satisfied the prerequisite requirements.
5. Any student who has completed a bachelor's degree from a regionally accredited institution will be considered to have completed the equivalent of the baccalaureate general education requirements, the Associate of Arts general education requirements and the Associate of Science general education requirements when officially accepted to a bachelor's, Associate of Arts or Associate of Science program at UAF. These students will also be considered to have completed the communication, computation and human relations requirements for the Associate of Applied Science and the certificate.
6. Any student who has completed an Associate of Arts or an Associate of Science degree from a regionally accredited institution will be considered to have satisfied the 100- and 200-level UAF general education requirements.
7. Any transfer student from a regionally accredited institution who has completed an associate degree specifically developed for transfer to a four-year institution will be considered to have satisfied the UAF general education requirements.
8. Any transfer student who has completed the baccalaureate general education requirements at any regionally accredited four-year institution will be considered to have completed the baccalaureate general education requirements at UAF. The student is responsible for providing an official statement and documentation certifying general education requirements completion at the previous institution.
9. Transfer credit is not included in computation of the UAF GPA except to determine eligibility for graduation with honors.
10. Class standing (e.g., freshman, sophomore) is based on the number of college credits accepted in transfer by UAF, combined with any courses completed in residence at UAF.
11. A student will be awarded credit for currently valid government and professional certifications that have been reviewed and approved for designated course equivalencies at UAF. A list of these programs is available in the Office of the Registrar.
12. Credit may also be awarded for satisfactory completion of training programs, based on recommendations of the American Council on Education. ACE college credit recommendations can be found online (http://www2.acenet.edu/credit/?fuseaction=search.main). The award of credit is subject to review and approval of appropriate UAF faculty.

**Military Credit**

Credits may be awarded for formal service schooling and military occupational specialties (MOS) based on recommendations published by the American Council on Education. ACE military credit recommendations can be found online (http://www.acenet.edu/news-room/Pages/Military-Guide-Online.aspx). Credit completed through the Community College of the Air Force or Department of Defense courses is included in the category of military experience.

**Non-University of Alaska GER Substitutions**

**TABLE OF GER SUBSTITUTIONS: NON-UNIVERSITY OF ALASKA INSTITUTIONS**

This table describes courses accepted by transfer to UAF from institutions outside the University of Alaska system that may substitute for UAF’s general education requirements. Students transferring from either UAA or UAS should consult Table of GER Substitutions: UA System (p. 36), or visit the Transfer to UAF webpage (https://www.uaf.edu/admissions/apply/transfer.php).

<table>
<thead>
<tr>
<th>UAF General Education Courses</th>
<th>Transfer Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>WRTG F111X</td>
<td>the required first-semester composition course at the 100 level (must be basic freshman composition and not developmental)</td>
</tr>
<tr>
<td>WRTG F211X, WRTG F212X, WRTG F213X or WRTG F214X</td>
<td>the second half of the introductory composition series at the 100 level or above</td>
</tr>
<tr>
<td>COJO F121X, COJO F131X or COJO F141X</td>
<td>a 100-level or above performance course in fundamentals of speech communication, public speaking or small group communication</td>
</tr>
</tbody>
</table>

**Arts (3 credits)**

<table>
<thead>
<tr>
<th>Humanities (3-5 credits)</th>
<th>an introductory course in the humanities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Sciences (6 credits)</td>
<td>introductory courses in different social sciences disciplines</td>
</tr>
</tbody>
</table>

**Additional Arts/Humanities/Social Sciences (3-5 credits)**

| MATH F113X, MATH F114X, MATH F122X, MATH F151X, MATH F152X or MATH F156X or; | a 100-level or above mathematics course having a prerequisite of at least two years of high school algebra |
| MATH F230X, MATH F251X, MATH F252X, MATH F253X or STAT F200X | a calculus or statistics course at the 100 level or above |

**Natural Sciences (8 credits)**

| courses in basic natural sciences (biology, chemistry, earth sciences, physics) with labs, at the 100 level or above. Non-lab courses are transferable only as a second natural science course. To fulfill general education requirements, a transfer student must complete two lab courses or two labs. Transfer of credit for courses in a natural science other than those listed requires approval of the dean of the College of Natural Science and Mathematics. |

**University of Alaska GER Substitutions**

**TRANSFERRING CREDITS WITHIN THE UNIVERSITY OF ALASKA SYSTEM**

In general, undergraduate credits earned at the 100 level or above at a University of Alaska institution will transfer to UAF. In addition, to serve students who transfer among the three institutions that make up the University of Alaska system, UAF, UAA and UAS have identified fully transferable general education requirements for baccalaureate degrees.

Credit for course work successfully completed at one UA institution which applies to general education requirements will fulfill the same categories at all other UA institutions. This applies even if there is no directly matching course work at the institution to which the student transfers.

Transfer students from UAA or UAS who have completed all general education requirements in the baccalaureate program before transferring to UAF will have completed all requirements for the UAF baccalaureate general education requirements. Courses taken to complete the baccalaureate general education requirements at UAA or UAS will meet UAF baccalaureate general education requirements according to the current Table of GER Substitutions: UA System (p. 36). Students should notify the UAF Office of the Registrar if they completed the general education requirements at UAA or UAS prior to enrollment in a major program of study at UAF.

In accordance with UA Board of Regents policy, completion of the 38-44 credits of the UAF general education requirements meets the general education requirements at UAA and UAS.

For more information about transfer credit visit the Transfer to UAF website (https://www.uaf.edu/admissions/apply/transfer.php).
TABLE OF GER SUBSTITUTIONS: UA SYSTEM

Use this course substitution table to determine how individual courses that meet UAA or UAS general education requirements may substitute for individual UAF general education requirements. This table applies only to courses taken within the University of Alaska system. Students transferring courses from outside the UA system should consult Table of Substitutions: Non-UA Institutions (p. 35) or visit the Transfer to UAF webpage (https://www.uaf.edu/admissions/apply/transfer.php).

WRITTEN COMMUNICATION (6 CREDITS)

<table>
<thead>
<tr>
<th>To meet these UAF General Education course requirements</th>
<th>Use any of these UAA general education courses</th>
<th>Use any of these UAS general education courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>WRITTEN COMMUNICATION (3 cr)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WRTG F111X</td>
<td>WRTG A111</td>
<td>WRTG S111</td>
</tr>
<tr>
<td>WRITTEN COMMUNICATION (3 cr)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WRTG F211X, WRTG F212X, WRTG F213X, WRTG F214X</td>
<td>WRTG A211, WRTG A212, WRTG A213, WRTG A214</td>
<td>WRTG S211, WRTG S212</td>
</tr>
</tbody>
</table>

ORAL COMMUNICATION (3 CREDITS)

<table>
<thead>
<tr>
<th>To meet these UAF General Education course requirements</th>
<th>Use any of these UAA general education courses</th>
<th>Use any of these UAS general education courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORAL COMMUNICATION (3 cr)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ARTS (3 CREDITS)

<table>
<thead>
<tr>
<th>To meet these UAF General Education course requirements</th>
<th>Use any of these UAA general education courses</th>
<th>Use any of these UAS general education courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTS (3 cr)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complete one of the following:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

HUMANITIES (3-5 CREDITS)

<table>
<thead>
<tr>
<th>To meet these UAF General Education course requirements</th>
<th>Use any of these UAA general education courses</th>
<th>Use any of these UAS general education courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>HUMANITIES (3-5 cr)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complete one of the following:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


**SOCIAL SCIENCES (6 CREDITS)**

To meet these UAF General Education course requirements

Use any of these UAA general education courses

Use any of these UAS general education courses

**SOCIAL SCIENCES (6 cr)**

Complete two courses in two different disciplines from the following:


**ADDITIONAL ARTS/HUMANITIES/SOCIAL SCIENCES (3-5 CREDITS)**

To meet these UAF General Education course requirements

Use any of these UAA general education courses

Use any of these UAS general education courses

**ADDITIONAL ARTS/HUMANITIES/SOCIAL SCIENCES (3-5 cr)**

Complete one additional course from the Arts, Humanities or Social Sciences courses listed above.

**MATHEMATICS (3-4 CREDITS)**

To meet these UAF General Education course requirements

Use any of these UAA general education courses

Use any of these UAS general education courses

**MATHEMATICS (3-4 cr)**

Complete one of the following:

- MATH F113X, MATH F114X, MATH F122X, MATH F151X, MATH F152X, MATH F155X, MATH F230X, MATH F251X, MATH F252X, MATH F253X, STAT F200X


- MATH S113X, MATH S151X, MATH S152X, MATH S251X, MATH S252X, STAT S107X, STAT S200X
NATURAL SCIENCES (8 CREDITS)

To meet these UAF General Education course requirements

Use any of these UAA general education courses

Use any of these UAS general education courses

NATURAL SCIENCES (8 cr)

Complete two of the following:

ATM F101X, BIOL F100X, BIOL F103X, BIOL F104X, BIOL F111X, BIOL F112X,
CHEM F100X, CHEM F103X, CHEM F104X, CHEM F105X, CHEM F106X, CHEM F111X,
CHEM F112X, CHEM F115X, CHEM F116X, CHEM F120X,
CHEM F103L, CHEM F104L, CHEM F105L, CHEM F106L, CHEM F111L,
CHEM F112L, CHEM F115L, CHEM F116L, CHEM F120L,
CHEM F103L, CHEM F104L, CHEM F105L, CHEM F106L, CHEM F111L,
CHEM F112L, CHEM F115L, CHEM F116L, CHEM F120L,
CHEM F103L, CHEM F104L, CHEM F105L, CHEM F106L, CHEM F111L,
CHEM F112L, CHEM F115L, CHEM F116L, CHEM F120L

Lab Courses: ANTH A205, ASTR A103 / ASTR A103L, ASTR A104 / ASTR A104L,
BIOL A111, BIOL A112, BIOL A178 / BIOL A179, CHEM A103 / CHEM A103L,
CHEM A104 / CHEM A104L, CHEM A105 / CHEM A105L, CHEM A106 / CHEM A106L,
ENVI A211 / ENVI A211L, GEOL A111 / GEOL A111L, GEOL A115 / GEOL A115L,
GEOL A178 / GEOL A179, GEOL A221, LSIS A102, LSIS A201, LSIS A202, PHYS A123 / PHYS A123L,
PHYS A124 / PHYS A124L, PHYS A211 / PHYS A211L, PHYS A212 / PHYS A212L,
PHYS A213, PHYS A214, PHYS A211, PHYS A212

Non-lab Courses: ANTH S205, CHEM S100, CHEM S105, CHEM S106, CHEM S105,
CHEM S106, CHEM S105, CHEM S106, CHEM S105L, CHEM S106,
CHEM S106L, ENV S102, GEOG S101, GEOG S102, GEOG S106,
PHYS S123, PHYS S124, PHYS S211, PHYS S212 Non-lab Courses: ANTH S205,
CHEM S100, CHEM S105, CHEM S106, CHEM S105, OCN S101,
PHIL S206, PHYS S165

Alternate Ways to Earn Credit

EXAM SERVICES

As a national test center, UAF eCampus Exam Services administers paper-and-pencil and computer-based exams. The office advises UAF students, prospective students and the community on national testing matters for college admissions and placement and for career and professional certification. eCampus Exam Services also coordinates credit by examination for local tests and for the College-Level Examination Program (CLEP). The office also does private proctoring. For more information and registration materials, contact eCampus Exam Services (https://ecampus.uaf.edu/testing-services/), 122 Bunnell Building, 907-474-5277, or uaf-testing@alaska.edu.

CREDIT FOR NATIONAL EXAMS

There are several ways to earn college credit by receiving a passing score on a national exam. UAF currently accepts the following exams:

• College-level Examination Program (CLEP)
• College Board Advanced Placement Exams (AP)
• International Baccalaureate (IB)
• Credit for Language Testing
• DANTES-DSST (Standardized Subject Tests)

For any of the following exam options, grades are not computed in the UAF GPA. Credit received for exams is not considered UAF residence credit and is not considered to be part of the semester course load for classification as a full-time student. Credit is awarded to current or previously enrolled degree students at UAF. Rules that apply to transfer courses (including the tables of substitutions) also apply to course credit received through a national exam. The credit for national exam options are briefly outlined here.

UAF currently accepts the following exams: College-level Examination Program (CLEP), College Board Advanced Placement Exams (AP), International Baccalaureate, Credit for Language Testing, DANTES-DSST (Standardized Subject Tests).

UAF Advanced Placement Credit

• English
  Students with ACT or SAT scores that place them in WRTG F211X, WRTG F212X, WRTG F213X or WRTG F214X (see Writing Course Placement Scores (p. 47) table) may receive local advanced placement credit for WRTG F111X upon completion of WRTG F211X, WRTG F212X, WRTG F213X or WRTG F214X with a grade of C or better.
  Students who have received transfer credit that substitutes for WRTG F211X, WRTG F212X, WRTG F213X or WRTG F214X with a grade of C or better and who meet the ACT or SAT test score requirement may also receive credit for WRTG F111X.
To receive this credit, students must submit the Application for WRTG F111X Credit form to the Office of the Registrar. The form is available at the Office of the Registrar or the English Department.

- **Alaska Native Language**
  After completing a course in which the student was placed (above 101) and earning a B grade or higher, the student may ask to receive credit for the two immediately preceding prerequisite courses, if any. However, credit cannot be awarded for such courses if university credit has already been granted. Credit will not be awarded for special topics courses, individual study courses, literature or culture courses, conversation courses, or any course taught in English.

## Credit for Prior Learning

The Academic Advising Center administers the credit for prior learning program, wherein students may earn undergraduate credit based on university-level learning they have obtained outside the classroom. Students can document the university-level learning they have gained through employment, volunteer service or other life experiences with a portfolio or copies of licenses and certificates earned. Certificates, associate or bachelor's degree students may earn up to 25 percent of total program requirements through the credit for prior learning program.

Credentials for admitted degree students who are currently enrolled are reviewed by faculty from participating departments who determine if this process is appropriate and make recommendations for awarding prior learning credit. Review is based on equivalency to courses listed in this catalog. Credit received for prior learning does not affect your GPA and is not considered residence credit. The university will award transfer credit for specified national and state authorizations, certificates, credentials and/or examinations (see Transferring Credits (p. 34)) that do not need credit for prior learning review. For further information or assistance, contact the Academic Advising Center, 510 Gruening Building, 907-474-6396 or uaf.advising@alaska.edu. The credit for prior learning student handbook is available in a pdf format (https://uaf.edu/advising/files/cpl/CPL-Handbook-2016.pdf).

## UAF Credit by Exam

Credit by exam can be earned at UAF by students who are currently enrolled. Most courses are available for credit by exam, except those with numbers ending -90 through -99 (193, 292, 497, etc.). A course challenged for credit cannot duplicate a course for which credit has already been granted or in which the student is currently enrolled. It is up to the discretion of the department and instructor to decide which courses can be challenged, the testing method and grading procedures. Credit by exam may not be requested for audited courses until one year has passed since the end of the semester in which the course was audited.

There is a $40 per credit hour non-refundable fee due upon submission to eCampus Exam Services.

Credit by examination forms may be obtained at the eCampus Exam Services (https://ecampus.uaf.edu/testing-services/) website (http://www.uaf.edu/testing/), under the UAF Tests drop-down, or in 122 Bunnell Building. For more information on challenging a course call eCampus Exam Services at 907-474-5277.

### UAF COMPETENCY TESTING

Students with appropriate background experience may complete certain components of the UAF general education requirements via competency testing. Credit by exam is not available.

- **Library Competency Exam**
  The Library Competency Exam, administered by UAF eCampus Exam Services, is offered to fulfill the bachelors’ degree requirement for LS F101X. The LCE, offered daily in eCampus Exam Services for $30, is designed to test or verify a student's knowledge of standard library functions, services and organization. While no credit is awarded for passing this exam, a score of at least 70 percent will fulfill the bachelors' degree requirements for LS F101X. Please contact eCampus Exam Services at 907-474-5277, uaf-testing@alaska.edu or 122 Bunnell Building for more information.

- **Computer Skills Placement Exam**
  The Computer Skills Placement Exam, administered by UAF eCampus Exam Services, is offered to fulfill the degree requirement for AIS F101, required by students seeking a B.B.A. degree at UAF. The CSP, offered daily in eCampus Exam Services for $30, is designed to test or verify a student’s knowledge of information technology and file management procedures; word processing (Word), spreadsheets (Excel), databases (Access) and presentation (PowerPoint) software; and information and communication skills. While no credit is awarded for passing this exam, a score of at least 70 percent will fulfill the degree requirement for AIS F101. Please contact eCampus Exam Services at 907-474-5277, uaf-testing@alaska.edu or 122 Bunnell Building for more information.

- **Oral Communication Competency Exam**
  Requests for competency testing for COJO F141X will be considered only if, in the opinion of a member of the Communication and Journalism Department faculty, a student presents evidence of substantive prior experience in formal public speaking situations (competency testing is not available for COJO F131X). Neither prior oral intensive course work nor COJO F432 are considered evidence of substantive prior experience. If the prior experience is sufficient, the individual will be asked either: a) to provide a video (not audio) recording of a formal public speaking presentation at least 10 minutes in length, or b) to present a 10-minute persuasive speech before a live audience, with at least one member of the Communication and Journalism Department faculty present. This process may be attempted only once. The date for live speeches will be established each semester, at a single time during the fourth to sixth week of classes. While no credit is awarded for passing this exam, a grade of at least a B (3.0) for either type of presentation will fulfill the general education requirements for COJO F141X. For more information and an
application for competency testing, contact eCampus Exam Services at 907-474-5277, 122 Bunnell Building, or the Department of Communication and Journalism at 907-474-7761 or 101 Bunnell Building.

College-level Examination Program (CLEP)

- CLEP is a national testing program that awards college credit for some introductory courses. The exams cost $120 each (cost subject to change) and are administered by appointment only.

See a list of College-Level Examination Program (CLEP) general and subject exams approved for credit at UAF below. To register for a CLEP exam or for more information, contact UAF eCampus Exam Services at 907-474-5277 or uaf-testing@alaska.edu. The following criteria apply to CLEP exams:

- Students can earn up to 6 semester credits upon successful completion of a General CLEP exam in the discipline of college mathematics, humanities, natural sciences or social sciences/history. Students who have earned less than 6 credits in the discipline (or 3 credits for mathematics), from any source, will be awarded the difference in credits upon successful completion of the exam. Students who already have 6 or more credits in the discipline (or 3 credits for mathematics) will not receive credit for the exam. General CLEP exams are listed in bold font in the College-Level Examination Program (CLEP) Exams Currently Accepted table.
- Each academic department at UAF determines if a CLEP exam will be accepted for credit.
- Students may not duplicate a course for which credit has already been earned or in which the student is currently enrolled.
- Students must wait at least one year after the end of an audited course before taking the CLEP Subject exam for that course.
- The minimum passing score for approved CLEP exams is 50, with the exception of the following foreign languages scores: French semester I and II minimum 50, semesters III and IV minimum 59; German semester I minimum 39, semester II minimum 50, semester III minimum 55, semester IV minimum 60; Spanish semester I minimum 39, semester II minimum 50, semester III minimum 57, semester IV minimum 63.

### COLLEGE-LEVEL EXAMINATION PROGRAM (CLEP) EXAMS CURRENTLY ACCEPTED

<table>
<thead>
<tr>
<th>Examination Name</th>
<th>UAF Course Equivalent</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algebra (College)</td>
<td>MATH F122X or MATH F151X</td>
<td>3 or 4</td>
</tr>
<tr>
<td>American Government</td>
<td>PS F101X</td>
<td>3</td>
</tr>
<tr>
<td>American Literature</td>
<td>NOT APPROVED FOR CREDIT</td>
<td></td>
</tr>
<tr>
<td>Analyzing and Interpreting Literature</td>
<td>NOT APPROVED FOR CREDIT</td>
<td></td>
</tr>
<tr>
<td>Biology</td>
<td>NOT APPROVED FOR CREDIT</td>
<td></td>
</tr>
<tr>
<td>Calculus</td>
<td>MATH F251X</td>
<td>4</td>
</tr>
<tr>
<td>Chemistry</td>
<td>CHEM F105X/CHEM F106X</td>
<td>8</td>
</tr>
<tr>
<td>College Composition</td>
<td>WRTG F111X</td>
<td>3</td>
</tr>
<tr>
<td>College Composition Modular</td>
<td>NOT APPROVED FOR CREDIT</td>
<td></td>
</tr>
<tr>
<td><strong>College Mathematics</strong></td>
<td><strong>Mathematics elective credits</strong></td>
<td>3</td>
</tr>
<tr>
<td>Educational Psychology (Introduction)</td>
<td>NOT APPROVED FOR CREDIT</td>
<td></td>
</tr>
<tr>
<td>English Literature</td>
<td>NOT APPROVED FOR CREDIT</td>
<td></td>
</tr>
<tr>
<td>Financial Accounting</td>
<td>ACCT F261X</td>
<td>3</td>
</tr>
<tr>
<td>French Language</td>
<td>FREN F101X/FREN F102X</td>
<td>4/3</td>
</tr>
<tr>
<td></td>
<td>FREN F201/FREN F202</td>
<td>3/3</td>
</tr>
<tr>
<td>German Language</td>
<td>GER F101X/GER F102X</td>
<td>5/5</td>
</tr>
<tr>
<td></td>
<td>GER F201/GER F202</td>
<td>3/3</td>
</tr>
<tr>
<td>History of the United States I</td>
<td>HIST F131²</td>
<td>3</td>
</tr>
<tr>
<td>History of the United States II</td>
<td>HIST F132X</td>
<td>3</td>
</tr>
<tr>
<td>Human Growth and Development</td>
<td>PSY F240²</td>
<td>3</td>
</tr>
<tr>
<td><strong>Humanities</strong></td>
<td><strong>Humanities elective credits</strong></td>
<td>6</td>
</tr>
<tr>
<td>Information Systems</td>
<td>PENDING DEPT APPROVAL</td>
<td></td>
</tr>
<tr>
<td>Introductory Business Law</td>
<td>ABUS F241</td>
<td>3</td>
</tr>
<tr>
<td><strong>Natural Sciences</strong></td>
<td><strong>Natural sciences elective credits</strong></td>
<td>6</td>
</tr>
<tr>
<td>Precalculus</td>
<td>MATH F151X/MATH F152X</td>
<td>4/3</td>
</tr>
<tr>
<td>Principles of Marketing</td>
<td>ABUS F260</td>
<td>3</td>
</tr>
<tr>
<td>Principles of Macroeconomics</td>
<td>ECON F202X</td>
<td>3</td>
</tr>
<tr>
<td>Principles of Microeconomics</td>
<td>ECON F201X</td>
<td>3</td>
</tr>
<tr>
<td>Principles of Management</td>
<td>ABUS F232</td>
<td>3</td>
</tr>
<tr>
<td>Course</td>
<td>Code</td>
<td>Credits</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>---------------</td>
<td>---------</td>
</tr>
<tr>
<td>Psychology (Introductory)</td>
<td>PSY F101X</td>
<td>3</td>
</tr>
<tr>
<td>Social Sciences/History</td>
<td>Social sciences elective credits</td>
<td>6</td>
</tr>
<tr>
<td>Sociology (Introductory)</td>
<td>SOC F101X</td>
<td>3</td>
</tr>
<tr>
<td>Spanish Language</td>
<td>SPAN F101X/SPAN F102X</td>
<td>4/3</td>
</tr>
<tr>
<td>Western Civilization I: Ancient Near East to 1648</td>
<td>HIST F101</td>
<td>3</td>
</tr>
<tr>
<td>Western Civilization II: 1648 to Present</td>
<td>HIST F102X</td>
<td>3</td>
</tr>
</tbody>
</table>

1. General CLEP Exam. Students who have earned less than 6 credits in the discipline (or 3 credits for mathematics), from any source, will be awarded the difference in credits upon successful completion of the exam. Students who already have 6 or more credits in the discipline (or 3 credits for mathematics) will not receive credit for the exam.

2. Can be used to meet the social sciences general education requirement.

3. Can be used to meet the humanities general education requirement.

X = Course meets general education requirement.

The Table of GER Substitutions: Non-UA Institutions (p. 35) guidelines determine which courses may meet general education requirements.

Must have a minimum score of 50 in order to receive UAF credit, with the exception of foreign language exams (p. 40), where score determines the number of credits awarded.

**College Board Advanced Placement Exams (AP)**

UAF grants advanced credit for exam results of 3 or higher, or a score of 4 or 5 (effective fall 2016) for Calculus AB or BC, on the College Board (CEEB) Advanced Placement Tests (see the College Board Advanced Placement (AP) Exams Currently Accepted table below). These exams are usually taken during the junior or senior year in high school.

To receive CEEB advanced placement credit, ask that an official report of the exam results be sent to the Office of Admissions from the College Board. Credits may be earned for more than one advanced placement exam.

**COLLEGE BOARD ADVANCED PLACEMENT (AP) EXAMS CURRENTLY ACCEPTED**

<table>
<thead>
<tr>
<th>Examination Name</th>
<th>UAF Course Equivalent</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art: History</td>
<td>ART F261X/ART F262X</td>
<td>6</td>
</tr>
<tr>
<td>Art, Studio: 2-D</td>
<td>Art electives&lt;sup&gt;1,3&lt;/sup&gt;</td>
<td>6</td>
</tr>
<tr>
<td>Art, Studio: 3-D</td>
<td>Art electives&lt;sup&gt;1,3&lt;/sup&gt;</td>
<td>6</td>
</tr>
<tr>
<td>Art, Studio: Drawing</td>
<td>Art Electives&lt;sup&gt;1,3&lt;/sup&gt;</td>
<td>6</td>
</tr>
<tr>
<td>Biology</td>
<td>BIOL F115X/BIOL F116X</td>
<td>8</td>
</tr>
<tr>
<td>Calculus AB</td>
<td>MATH F251X</td>
<td>4</td>
</tr>
<tr>
<td>Calculus BC</td>
<td>MATH F251X/MATH F252X</td>
<td>8</td>
</tr>
<tr>
<td>Chemistry</td>
<td>CHEM F105X/CHEM F106X</td>
<td>8</td>
</tr>
<tr>
<td>Chinese Language and Culture</td>
<td>CHNS F101X/CHNS F102X</td>
<td>10</td>
</tr>
<tr>
<td>Computer Science A</td>
<td>CS F201</td>
<td>3</td>
</tr>
<tr>
<td>English Language &amp; Composition</td>
<td>WRTG F111X</td>
<td>3</td>
</tr>
<tr>
<td>English Literature &amp; Composition</td>
<td>WRTG F111X</td>
<td>3</td>
</tr>
<tr>
<td>Environmental Science</td>
<td>Natural sciences elective (meets general education requirement)</td>
<td>4</td>
</tr>
<tr>
<td>European History</td>
<td>HIST F101&lt;sup&gt;2&lt;/sup&gt;/HIST F102X</td>
<td>6</td>
</tr>
<tr>
<td>French Language and Culture</td>
<td>FREN F101X/FREN F102X</td>
<td>10</td>
</tr>
<tr>
<td>German Language and Culture</td>
<td>GER F101X/GER F102X</td>
<td>10</td>
</tr>
<tr>
<td>Government and Politics: Comparative</td>
<td>PS F201X</td>
<td>3</td>
</tr>
<tr>
<td>Government and Politics: United States</td>
<td>PS F101X</td>
<td>3</td>
</tr>
<tr>
<td>Human Geography</td>
<td>GEOG F101X</td>
<td>3</td>
</tr>
<tr>
<td>Italian Language and Culture</td>
<td>Foreign Language electives&lt;sup&gt;3&lt;/sup&gt;</td>
<td>8</td>
</tr>
<tr>
<td>Japanese Language and Culture</td>
<td>JPN F101X/JPN F102X</td>
<td>10</td>
</tr>
<tr>
<td>Latin</td>
<td>Foreign Language electives&lt;sup&gt;3&lt;/sup&gt;</td>
<td>8</td>
</tr>
<tr>
<td>Macroeconomics</td>
<td>ECON F202X</td>
<td>3</td>
</tr>
<tr>
<td>Microeconomics</td>
<td>ECON F201X</td>
<td>3</td>
</tr>
</tbody>
</table>
Music Theory (score of 3)  
MUS F103X  
3

Music Theory (score of 4 or 5)  
MUS F131X/MUS F133X  
5

Physics 1  
PHYS F123X  
4

Physics 2  
PHYS F124X  
4

Physics C: Electricity and Magnetism  
PHYS F212X  
4

Physics C: Mechanics  
PHYS F211X  
4

Psychology  
PSY F101X  
3

Russian Language and Culture (Prototype)  
RUSS F101X/RUSS F102X  
10

Spanish Language and Culture  
SPAN F101X/SPAN F102X  
10

Spanish Literature and Culture  
Spanish electives (200 level)  
3

   3

Statistics  
STAT F200X  
3

United States History  
HIST F131X/HIST F132X  
6

World History  
HIST F100X  
3

Portfolios may be submitted to the Art Department for further evaluation.

Can be used to meet the social sciences general education requirement.

Can be used to meet the humanities general education requirement.

X = Course meets general education requirement.

The Table of GER Substitutions: Non-UA Institutions (p. 35) guidelines determine which courses may meet general education requirements.

Must have a minimum score of 3, or a score of 4 or 5 for Calculus AB or BC, in order to receive UAF credit.

**International Baccalaureate**

The International Baccalaureate Diploma Program is a two-year curriculum for students ages 16 to 19 and is similar to the final year of secondary school in some countries in Europe. UAF grants advanced credit, with a waiver of fees, for IB higher-level and some standard-level exams on which students have earned a score of 4 or higher, or a score of 5 or higher for mathematics (see the International Baccalaureate Exams Currently Accepted table below). To receive IB credit, students should submit an official copy of their IB exam results to the Office of the Registrar.

### INTERNATIONAL BACCALAUREATE EXAMS CURRENTLY ACCEPTED

<table>
<thead>
<tr>
<th>Examination Name</th>
<th>Level</th>
<th>UAF Course Equivalent</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>HL</td>
<td>BIOL F115X/BIOL F116X</td>
<td>8</td>
</tr>
<tr>
<td>Chemistry</td>
<td>SL</td>
<td>CHEM F103X/CHEM F104X</td>
<td>8</td>
</tr>
<tr>
<td>Chemistry</td>
<td>HL</td>
<td>CHEM F105X/CHEM F106X</td>
<td>8</td>
</tr>
<tr>
<td>Classical Greek</td>
<td>HL</td>
<td>Humanities electives</td>
<td>6</td>
</tr>
<tr>
<td>French</td>
<td>SL</td>
<td>FREN F101X/FREN F102X</td>
<td>10</td>
</tr>
<tr>
<td>French</td>
<td>HL</td>
<td>FREN F101X/FREN F102X</td>
<td>10</td>
</tr>
<tr>
<td>German</td>
<td>SL</td>
<td>GER F101X/GER F102X</td>
<td>10</td>
</tr>
<tr>
<td>German</td>
<td>HL</td>
<td>GER F101X/GER F102X</td>
<td>10</td>
</tr>
<tr>
<td>History of Europe &amp; the Islamic World</td>
<td>HL</td>
<td>HIST electives</td>
<td>6</td>
</tr>
<tr>
<td>Japanese</td>
<td>SL</td>
<td>JPN F101X/JPN F102X</td>
<td>8</td>
</tr>
<tr>
<td>Japanese</td>
<td>HL</td>
<td>JPN F101X/JPN F102X</td>
<td>10</td>
</tr>
<tr>
<td>Language A1 (English)</td>
<td>HL</td>
<td>WRTG F111X and ENGL electives</td>
<td>3</td>
</tr>
<tr>
<td>Language A: Language &amp; Literature</td>
<td></td>
<td>Not Accepted for Credit</td>
<td>-</td>
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<tr>
<td>Language A: Literature</td>
<td></td>
<td>Not Accepted for Credit</td>
<td>-</td>
</tr>
<tr>
<td>Literature and Performance</td>
<td></td>
<td>Not Accepted for Credit</td>
<td>-</td>
</tr>
<tr>
<td>Latin</td>
<td>HL</td>
<td>LAT F101X/LAT F102X</td>
<td>6</td>
</tr>
<tr>
<td>Mathematics</td>
<td>HL</td>
<td>MATH F251X</td>
<td>4</td>
</tr>
<tr>
<td>Mathematics w/Series &amp; ODE option</td>
<td>HL</td>
<td>MATH F251X</td>
<td>4</td>
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</table>
Mathematics and Further Math

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>HL</td>
<td>MATH F251X, MATH F252X</td>
<td>8</td>
</tr>
<tr>
<td>SL</td>
<td>MATH electives</td>
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Philosophy

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<tbody>
<tr>
<td>HL</td>
<td>PHIL F102X</td>
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Physics

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<thead>
<tr>
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<tbody>
<tr>
<td>HL</td>
<td>PHYS F123X</td>
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Russian

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>HL</td>
<td>RUSS F101X/ RUSS F102X</td>
</tr>
<tr>
<td>SL</td>
<td>RUSS F201¹/ RUSS F202¹</td>
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Social & Cultural Anthropology

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>SL</td>
<td>ANTH electives</td>
</tr>
<tr>
<td>HL</td>
<td>ANTH F242²</td>
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Spanish

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>HL</td>
<td>SPAN F101X/ SPAN F102X</td>
</tr>
</tbody>
</table>

Theatre

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>SL</td>
<td>FLPA F200X</td>
</tr>
<tr>
<td>HL</td>
<td>FLPA F200X</td>
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</table>

20th-C World History: History of Africa

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>HL</td>
<td>HIST F100X substitute</td>
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</tbody>
</table>

20th-C World History: History of the Americas

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>HL</td>
<td>HIST F100X substitute</td>
</tr>
</tbody>
</table>

20th-C World History: History of Asia & Oceania

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>HL</td>
<td>HIST F100X substitute</td>
</tr>
</tbody>
</table>

20th-C World History: History of Europe & the Middle East

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>HL</td>
<td>HIST electives²</td>
</tr>
</tbody>
</table>

Visual Arts

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>HL</td>
<td>ART F105X¹,³/ ART F161¹</td>
</tr>
</tbody>
</table>

1 Can be used to meet the humanities general education requirement.
2 Can be used to meet the social sciences general education requirements.
3 Can be used to meet the arts general education requirement.

X = Course meets general education requirement.

The Table of GER Substitutions: Non-UA Institutions (p. 35) guidelines determine which courses may meet general education requirements.

If an international baccalaureate exam is not in this table, contact the Office of the Registrar at uaf-registrar@alaska.edu for more information.

Must have a minimum score of 4 (or a score of 5 in mathematics) to receive UAF credit.

**Credit for Language Testing**

UAF accepts successful test results from Brigham Young University or other national testing programs (subject to approval from the Department of Foreign Languages and Literatures) in languages for which no CLEP test is available, for a maximum of 12 credits. The first 10 credits may be applied to the general education Humanities and/or Additional Arts/Humanities, Social Sciences requirement, and any additional credits will be awarded general humanities elective credit. Results must be submitted directly to the Office of the Registrar by the testing agency. For more information on language testing opportunities, contact UAF eCampus Exam Services at 907-474-5277 or uaf-testing@alaska.edu.

Students who are speakers of non-English languages transferring from foreign partner universities to UAF are exempted from taking a foreign language test to demonstrate fluency in that language. Complete the language exemption/GER credit waiver form and file it with the Office of the Registrar. Upon approval, 3 credits of general education humanities and/or 3 credits of additional arts/humanities/social sciences general education requirements will be waived. This applies only to students participating in formalized articulation agreements established between UAF and partner institutions.

**DANTES-DSST (Standardized Subject Tests)**

DSST is a national testing program that offers exams in traditional academic, vocational/technical and business subject areas. Credit is awarded for successfully completing DSST tests as recommended by the American Council on Education. Acceptance of the DSST exam for a specific catalog course or as a major/minor requirement is subject to department approval. DSST exams cost $120 each (cost subject to change). Contact UAF eCampus Exam Services at 907-474-5277 or uaf-testing@alaska.edu about the availability of DSST testing.
Registration

In order to attend a class, students must be either registered or wait-listed. Credit for classes may be earned only when tuition and fees are paid in full. Registration is held each semester on dates published in the academic calendar (http://catalog.uaf.edu/calendar/).

Details about procedures and schedules for registering are published online and in separate publications at each campus. Registration instructions for the Fairbanks campus are provided in the UAF registration guide (http://www.uaf.edu/register/).

The first day of instruction for all semester-length courses is the date indicated in the official semester academic calendar. That date might not be the first day that a class meets.

If you register for courses, the university holds you financially responsible for payment of your tuition and fees. The university may drop your registration if you do not pay. Other consequences for nonpayment include not being able to receive your grades or transcripts.

Academic Advising Is Required

Academic advising is an important part of planning for your education. Degree students must obtain an academic advisor’s signature every semester to begin the registration process. All undergraduate degree and certificate students are required to have an academic advisor. You will work in tandem with your academic advisor to develop a viable educational plan that reflects your academic interests and goals. Your academic advisor will assist you in determining the best options, alternatives and sequences of classes to take. Academic advising is available at several campuses. See Services and Resources (p. 78) for more information.

Graduate Students

First-semester graduate students must meet with their advisor, or, if no advisor is assigned, then they should meet with the department or program chair to begin their registration process.

Continuing graduate students who meet the registration requirement as found under the How to Earn a Graduate Degree (p. 290) section of the catalog need to confer with their advisor as to what courses to enroll in for each semester.

Nondegree Students

Anyone who wants to attend classes at UAF as a nondegree student may register as long as they have the appropriate permissions. New nondegree students who are at least 18 years old must complete a free nondegree application (https://uaf.edu/admissions/apply/#now) in order to be eligible to register.

Nondegree students may also see an academic advisor, and it is recommended for those taking 9 or more credits in a semester or for those who have accumulated 30 or more UAF credits. Nondegree students who have been academically disqualified should meet with an academic advisor each semester to develop a realistic and timely educational plan.

Nondegree students are subject to placement examination requirements for courses, and they must maintain a 2.0 GPA to remain in good standing. Any nondegree student who wants to be considered a degree candidate must submit an application for admission, meet regular admission requirements and submit transcripts. Nondegree students are not eligible for financial aid or priority registration.

It’s important for potential graduate students to understand that credits earned as a nondegree student might not be accepted for use toward a graduate degree program. Please see the transfer credit section of How to Earn a Graduate Degree (p. 290).

High School and Secondary School Students

High school and secondary students may take classes at UAF either as degree or nondegree students.

- Secondary Student Enrollment
  The secondary student enrollment process allows secondary school students to register for UAF classes. A student meeting course prerequisites may enroll in university classes. Students must consult their appropriate school district officials and school counselors for approval prior to registration if they wish to use university courses to meet high school graduation requirements.
  Registering for courses at UAF establishes a permanent academic record that reflects student academic performance in all courses attempted. Students must submit the free nondegree application (https://uaf.edu/admissions/apply/#now) and must obtain a parent’s or guardian’s permission (https://uaf.edu/reg/files/forms/REC_Seccondary%20Student%20Parent%20Guardian%20Agreement.pdf) to enroll.
  A parent or guardian may not attend a course in which their secondary school student is registered unless and until the parent or guardian is also officially registered for the course.
  Note: Enrollment in UAF courses as a secondary student does not constitute formal admission to the university for the purposes of earning a certificate or degree. Please note that in order to qualify for federal financial aid, you must have either a high school diploma or a GED.
- TECH PREP Opportunities
  The TECH PREP program allows students to earn credits toward a UAF certificate or associate degree by completing career and technical education classes in high school that have been approved for college credit by UAF. The classes available for credit vary from school to school, but in general, they are taken from the following areas: applied business; automotive; airframe and powerplant; human services; computer information
office systems; allied health; drafting; emergency medical services; and welding. For more information, contact your high school counselor or the Community and Technical College at 907-455-2800.

- Alaska Higher Education Admission Decision (AHEAD) program

The AHEAD program allows qualified high school students to be admitted to UAF as general studies students. AHEAD students are assigned an academic advisor and follow the registration timeline for degree students.

To qualify, students must submit an AHEAD program application (https://uaf.edu/admissions/apply/highschool/). They must have completed three-fourths of their high school core curriculum and have a cumulative 3.0 GPA or higher. (To qualify for federal financial aid, you must have either a high school diploma or a GED.)

Adding, Dropping and Withdrawing from Classes

Information about the add/drop process can also be found at UAOnline (http://uaonline.alaska.edu) and in the registration guide (http://www.uaf.edu/register/). Adds, drops and withdrawals are not final until the student has completed the appropriate procedure, paid any relevant fees or tuition and submitted all necessary paperwork to the Office of the Registrar. If you drop a class within specified time frames, the course will not be part of your academic transcript. Important deadlines are listed in Important Registration Change Deadlines (p. 45) table.

### Important Registration Change Deadlines

<table>
<thead>
<tr>
<th>Action</th>
<th>Begins</th>
<th>Ends</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adding a class</td>
<td>First day of registration for the semester</td>
<td>Last day of the second week of instruction for the semester</td>
<td>Advisor's signature not required.</td>
</tr>
<tr>
<td>Credit/No-credit option</td>
<td>First day of registration for the semester</td>
<td>Last day of the second week of instruction for the semester</td>
<td>Undergraduates only; only electives not specified in a student's core, major, minor and degree programs are eligible for this option.</td>
</tr>
<tr>
<td>Dropping one or more class(es) (class does not appear on transcript)</td>
<td>First day of registration for the semester</td>
<td>Last day of the second week of instruction for the semester</td>
<td>Faculty member will notify the Office of the Registrar.</td>
</tr>
<tr>
<td>Faculty-initiated drop (class does not appear on transcript)</td>
<td>Published first date of semester</td>
<td>Last day of the second week of instruction for the semester</td>
<td>Advisor's signature required for student in degree program.</td>
</tr>
<tr>
<td>Withdrawing from a class (class appears on transcript with W grade)</td>
<td>After the last day of the second week of instruction for the semester</td>
<td>Last day of the tenth week of instruction for the semester</td>
<td>Advisor's signature required for student in degree program; total withdrawal form must be completed.</td>
</tr>
<tr>
<td>Withdrawing from all classes (total withdrawal)</td>
<td>After the last day of the second week of instruction for the semester</td>
<td>Last day of the tenth week of instruction for the semester</td>
<td>Faculty member will notify the Office of the Registrar. Student will receive an email notification at their UAF account.</td>
</tr>
<tr>
<td>Faculty-initiated withdrawal (class appears on transcript with W grade)</td>
<td>After the last day of the second week of instruction for the semester</td>
<td>Last day of the tenth week of instruction for the semester</td>
<td>Advisor's signature is required for students in a degree program and must complete appeal for late withdrawal paperwork; reviewed by a campus appeals committee. Late withdrawals are allowed for exceptional cases only and approval is not automatic.</td>
</tr>
<tr>
<td>Appeal for late withdrawal from a class³</td>
<td>After the last day for student-initiated withdrawals</td>
<td>30 days after the first published day of instruction for the next regular semester.</td>
<td>Advisor's signature is required for students in a degree program and must complete appeal for late withdrawal paperwork; reviewed by a campus appeals committee. Late withdrawals are allowed for exceptional cases only and approval is not automatic.</td>
</tr>
</tbody>
</table>

### IMPORTANT DATES FOR SHORT, LATE-START AND COURSES OUTSIDE OF THE NORMAL SEMESTER TIMELINE.

<table>
<thead>
<tr>
<th>Action¹</th>
<th>Begins²</th>
<th>Ends</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adding a class</td>
<td>First day of registration for the semester</td>
<td>Last day of the second week of instruction for the semester</td>
<td>Advisor's signature not required.</td>
</tr>
</tbody>
</table>
Registration

<table>
<thead>
<tr>
<th>Dropping one or more class(es) (class does not appear on transcript)</th>
<th>First day of registration for the semester</th>
<th>Last day of the second week of instruction for the semester</th>
<th>Faculty member will notify the Office of the Registrar.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty-initiated drop (class does not appear on transcript)</td>
<td>Published first date of semester</td>
<td>Last day of the second week of instruction for the semester</td>
<td></td>
</tr>
<tr>
<td>Withdrawing from a class (class appears on transcript with W grade)</td>
<td>After the last day of the second week of instruction for the semester</td>
<td>Last day of the tenth week of instruction for the semester</td>
<td>Advisor's signature required for student in degree program.</td>
</tr>
<tr>
<td>Withdrawing from all classes (total withdrawal)</td>
<td>After the last day of the second week of instruction for the semester</td>
<td>Last day of the tenth week of instruction for the semester</td>
<td>Advisor's signature required for student in degree program; total withdrawal form must be completed.</td>
</tr>
<tr>
<td>Credit/No-credit option</td>
<td>First day of registration for the semester</td>
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<td>Undergraduates only; only electives not specified in a student's core, major, minor and degree programs are eligible for this option.</td>
</tr>
<tr>
<td>Faculty-initiated withdrawal (class appears on transcript with W grade)</td>
<td>After the last day of the second week of instruction for the semester</td>
<td>Last day of the tenth week of instruction for the semester</td>
<td>Faculty member will notify the Office of the Registrar. Student will receive an email notification at their UAF account.</td>
</tr>
<tr>
<td>Appeal for late withdrawal from a class*</td>
<td>After the last day for student-initiated withdrawals</td>
<td>30 days after the first published day of instruction for the next regular semester.</td>
<td>Advisor's signature is required for students in a degree program and must complete appeal for late withdrawal paperwork; reviewed by a campus appeals committee. Late withdrawals are allowed for exceptional cases only and approval is not automatic.</td>
</tr>
</tbody>
</table>

NON-ATTENDANCE DROP POLICY

Students are expected to begin attending classes on the first day of instruction. Some departments, in trying to find space for students on waitlists, require that you attend the first class session or notify the department in advance that you cannot attend the first class. If you miss the first class without notifying the department, you may be dropped from the course, and the space may be assigned to a student on the waitlist.

Because of the high demand for composition and basic speech courses listed below, students who fail to attend either of the first two meetings of a basic course will be dropped even if they registered in advance and paid their fees. If space becomes available in a class from which you have been dropped by the department, you need to follow the add procedure to re-enroll.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>WRTG F111X</td>
<td>Writing Across Contexts</td>
<td></td>
</tr>
<tr>
<td>WRTG F213X</td>
<td>Writing and the Sciences</td>
<td></td>
</tr>
<tr>
<td>ENGL F414</td>
<td>Research Writing</td>
<td></td>
</tr>
<tr>
<td>COJO F131X</td>
<td>Fundamentals of Oral Communication: Group Context</td>
<td></td>
</tr>
<tr>
<td>COJO F141X</td>
<td>Fundamentals of Oral Communication: Public Context</td>
<td></td>
</tr>
</tbody>
</table>

WITHDRAWING

- **Withdrawing from a Class**
  If you withdraw from a class later than the second Friday after the first day of instruction (last day to drop classes), a grade of W appears on your academic record. The W grade does not affect your GPA. However, it may impact your financial aid. Be sure to check with the Financial Aid Office before withdrawing from classes. The last day you can withdraw from a class is the 10th Friday after the first day of instruction. For specific dates, see the academic calendar (p. 10). Fees and tuition are not automatically refunded for W grades.

- **Withdrawing from a Class Shorter than the Full Semester**
  Withdrawal must be done by the 60 percent point of instruction.

- **Total Withdrawal from All Classes**
  If you want to withdraw from all your classes later than the second Friday after the first day of instruction (last day to drop classes), use a Total Withdrawal form available at the Office of the Registrar forms page (http://www.uaf.edu/reg/forms/) or through the Office of the Registrar in Signers’ Hall on the Fairbanks campus. You’ll receive a W grade for all classes, which does not impact your GPA. A student-initiated total withdrawal is subject to the same deadlines as withdrawal from a class. For specific dates, see the academic calendar (p. 10). Fees and tuition are not automatically refunded for W grades.
WITHDRAWALS AFTER THE DEADLINE

Appeals for a late withdrawal after the student-initiated withdrawal deadline — the ninth Friday after the first day of instruction — are exceptions to policy and are allowed only in exceptional cases. Approval is not automatic, and you need to provide documented evidence to support your request. Acceptable serious and compelling reasons may include:

1. death in immediate family;
2. serious illness or injury of student or immediate family; and
3. factors outside of student’s control (for example, fire or flood).

Failing a course, avoiding an unsatisfactory grade or ignorance of policies are not serious and compelling reason for seeking a late withdrawal and will not be approved.

Appeals for late withdrawals must be submitted within 30 class days after the beginning of the next regular semester. Forms for an appeal for late withdrawals are available at the Office of the Registrar forms page (http://www.uaf.edu/reg/forms/), through the Office of the Registrar in Signers’ Hall on the Fairbanks campus, or through local campus student services offices. Once received, the appeal will be evaluated by a campuswide committee, which will return a decision to the student. The decision of the university is final, and a student who files a written appeal under these procedures shall be expected to abide by the final disposition of the review, as provided, and may not seek further appeal of the matter under any other procedure within the university.

FACULTY-INITIATED DROP OR WITHDRAWAL

Class instructors have the right to drop students who do not meet course prerequisites, did not obtain a grade of C- or better in all prerequisite courses, or who have not participated substantially in a course. Faculty-initiated drops submitted through the second Friday after the first day of instruction will be treated as a dropped class and will not appear on any student transcript. The faculty-initiated withdrawal may occur after the second Friday but before the 10th Friday after the first day of instruction. A grade of W will appear on a student's academic record for faculty-initiated withdrawals.

Directed and Individual Study

Directed study courses allow a student to contract with an instructor to enroll individually in a course that is listed in the catalog but in a semester in which the course is not offered in the regular schedule.

For example, a directed study proposal may be approved if the course is not being offered that semester and the student needs to complete the course for graduation. The title for the directed study course will include DS.

Individual study courses provide students with opportunities to improve their knowledge in areas of study not listed in the current catalog. A student who requests or is advised to undertake such an individual study should present a brief proposal and syllabus to the appropriate faculty member. The syllabus must be attached to an individual study form. This requirement does not apply to directed study courses. An individual study course number will end in 97.

Registration for directed and individual study courses is not available via the web. To register for a directed or individual study course, download the request form (http://www.uaf.edu/reg/forms/) or pick up a copy at the Office of the Registrar. Submit the completed form to the Office of the Registrar.

Where to Get More Information

Office of the Registrar
University of Alaska Fairbanks
1810 Salcha Street | 102 Signers’ Hall
P.O. Box 757495 | Fairbanks, AK 99775-7495
Email: uaf-registrar@alaska.edu
Telephone: 907-474-6300

Course Placement

Placement Requirements

Many UAF courses require placement. All students planning to take courses with specific placement requirements must meet those requirements before registering for those courses. Specific writing, reading and math placement requirements are listed in the sections below.

Students need mathematics placement at MATH F105 or above and writing placement at WRTG F111X or above to register for general education requirements for natural science courses.

Placement Tests

Test results are required for first-time degree or certificate students, transfer students with fewer than 30 transfer credits, or students planning to take 100-level English, reading, mathematics, natural sciences and many general education courses. UAF mathematics placement test results must be on file with the Office of the Registrar or the local regional campus registration office before you can register for developmental math, math, statistics or general education natural
Course Prerequisites

Course prerequisites indicate what previous preparation is needed to enroll in a course. An instructor has the right to waive a course prerequisite if the instructor documents that the student possesses the background required to succeed in the class. Instructors also have the right to drop any students from a course if they do not meet the prerequisite or have not received a grade of C- or better in all prerequisite courses. Students who take a course at a higher level than a corresponding prerequisite course required for a degree program are not exempt from taking that required course.

Writing Course Placement Scores

<table>
<thead>
<tr>
<th>Courses</th>
<th>ACT English + Reading Total Combined Score</th>
<th>SAT Redesigned Evidence Based Reading + Writing Total Combined Score</th>
<th>ACCUPLACER Classic Sentence Skills + Reading Comprehension Total Combined Score</th>
<th>ACCUPLACER Next Generation Writing &amp; Reading</th>
<th>ASSET Form B2 Writing Skills + Form B2 Reading Skills Total Combined Score</th>
<th>UAF Writing Sample For Use with ASSET Form B2</th>
</tr>
</thead>
<tbody>
<tr>
<td>WRTG F211X, WRTG F212X, WRTG F213X or WRTG F214X</td>
<td>60-72</td>
<td>710-800</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>WRTG F111X</td>
<td>36-59</td>
<td>480-700</td>
<td>170-240</td>
<td>Writing: 265-300, Reading: 265-300</td>
<td>82-107</td>
<td>19-25</td>
</tr>
<tr>
<td>WRTG F110</td>
<td>30-35</td>
<td>430-470</td>
<td>140-169</td>
<td>Writing: 250-264, Reading: 250-264</td>
<td>76-81</td>
<td>16-18</td>
</tr>
<tr>
<td>WRTG F090</td>
<td>26-29</td>
<td>390-420</td>
<td>110-139</td>
<td>Writing: 235-249, Reading: 235-249</td>
<td>70-75</td>
<td>12-15</td>
</tr>
<tr>
<td>Adult Basic Education</td>
<td>2-17</td>
<td>200-320</td>
<td>40-79</td>
<td>N/A</td>
<td>46-65</td>
<td>0-8</td>
</tr>
</tbody>
</table>

1 The SAT Redesigned first administered March 2016.
2 Students with ACT or SAT scores that place them in WRTG F211X, WRTG F212X, WRTG F213X or WRTG F214X may receive local advanced placement credit for WRTG F111X upon completion of WRTG F211X, WRTG F212X, WRTG F213X or WRTG F214X with a grade of C or better. To receive this credit, students should submit the Application for WRTG F111X Credit form to the Office of the Registrar.
3 ACCUPLACER Classic will no longer be administered after January 2019. It is being replaced by Accuplacer Next Generation effective fall 2018.
4 ACCUPLACER Next Generation placement is based on the lowest of the two separate Writing & Reading Scores.
5 Adult Basic Education program listing (http://www.jobs.alaska.gov/abe/) can be found here (http://www.jobs.alaska.gov/abe/).
Note: WRTG F111X plus pairs a section of WRTG F111X with WRTG F068. Qualifying students are those who have a combined ACCUPLACER Classic score between 130-169 or an ACCUPLACER Next Generation score between 490-529 and are referred by their academic advisor to Jennifer Tilbury <jtilbury@alaska.edu> at UAF Community and Technical College or the appropriate WRTG F111X-plus instructor of record to interview for the program. WRTG F068 is a writing support group tutorial class, recommended based on the student’s needs for writing assistance along with any WRTG course listed in the table. Students may take up to three credits of WRTG F068 per semester for as many semesters as needed.

Foreign Language
Students may not register for foreign language classes higher than F101 unless they have received credit through CLEP, AP, transfer or another UAF-approved test for the prior levels. With approval of the Department of Foreign Languages and Literatures, students may enroll in the level of a language at which they are competent, based on prior experience.

Mathematics
Mathematics course placement varies according to the type of degree the student is planning to pursue and the corresponding math course(s) needed. (See the degree program requirements (p. 154) for more detail.) The UAF mathematics placement test is used to determine math placement. Minimum test scores for placement in math and developmental math courses are listed in Math, Statistics and Developmental Math Placement Scores (p. 49) table.

Students who have limited access to or limited experience with the Internet should contact the Department of Mathematics and Statistics or the Department of Developmental Education for assistance.

Math, Statistics and Developmental Math Placement Scores

<table>
<thead>
<tr>
<th>Courses</th>
<th>ALEKS PPL</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH F251X</td>
<td>78-100</td>
</tr>
<tr>
<td>MATH F211, MATH F230X</td>
<td>70-100</td>
</tr>
<tr>
<td>MATH F152X, MATH F156X</td>
<td>65-77</td>
</tr>
<tr>
<td>STAT F200X</td>
<td>55-100</td>
</tr>
<tr>
<td>MATH F122X, MATH F151X¹</td>
<td>55-77</td>
</tr>
<tr>
<td>MATH F113X, MATH F114X</td>
<td>30-100</td>
</tr>
<tr>
<td>MATH F105², MATH F105N, MATH F113X (MATH F071, MATH F105G, MATH F105H, MATH F105J)</td>
<td>30-54</td>
</tr>
<tr>
<td>MATH F055 (MATH F055D, MATH F055E, MATH F055F, MATH F061, MATH F062, HLTH F116, TTCH F131)</td>
<td>17-29</td>
</tr>
<tr>
<td>MATH F068</td>
<td>5-29</td>
</tr>
<tr>
<td>MATH F054 (MATH F056, ABUS F155)</td>
<td>0-16</td>
</tr>
</tbody>
</table>

¹ Placement for BIOL F115X, BIOL F116X, CHEM F105X, CHEM F106X.
² Placement for all general education requirements for natural sciences courses except those listed different in the catalog.

Note: Academic advisors should check test score and prerequisite course dates on BANNER or UAOnline and instruct students to retest if their test scores are more than ONE year old for the placement test date and TWO years old for the course prerequisite date. Students who enroll in any course without meeting placement or prerequisite requirements may be dropped or withdrawn from the course through the faculty-initiated withdrawal process.

Note: Completion of MATH F068 will meet the requirements needed to enter MATH F071, MATH F105 and MATH F105N.
ACADEMICS AND REGULATIONS

To encourage a positive learning environment and high academic standards, universities establish specific scholastic requirements and community rules. At UAF, academic regulations address issues such as grading, academic standing, and student rights and responsibilities. Since policies change from time to time, it’s important for students to stay informed about current requirements. By enrolling at UAF, a student agrees to abide by university rules, regulations and academic standards.

- Communication via Email (p. 50)
- Class Standing (p. 50)
- Full- or Part-Time Status/Study Load (p. 50)
- Undergraduate Credit Load and Overloads (p. 51)
- Grading Options (p. 51)
- Grading System and Grade Point Average Computation (p. 51)
- Attendance (p. 53)
- Midterm Progress Reporting (p. 54)
- Academic Standards (p. 54)
- Appeal of Academic Decisions (p. 55)
- Students’ Rights and Responsibilities (p. 56)
- Information Release and FERPA (p. 57)
- Nondiscrimination Policy and Disclaimer (p. 57)
- Veterans Affairs Educational Benefits, Tuition and Fees (p. 59)

Communication via Email

UAF uses email to communicate with students about many important matters. Email is often the only way some information is distributed, so it’s important you check your email frequently and read messages sent to you from the university. For example, if you are waitlisted for a class, an email will be sent to you when a seat becomes available. If you don’t act on the email within a specified time frame, you risk losing that seat to the next student on the waitlist.

The university automatically assigns each student an official University of Alaska email account. If you prefer to use another email account, rather than your university-generated one, there are three steps to take to ensure you get all official communications:

1. Log in to UAOnline (https://uaonline.alaska.edu) and enter or update your preferred email address under the “Personal Information” menu.
2. Log in to your University of Alaska email account (http://www.alaska.edu/google/) and set up a forward to whichever account you prefer.
3. When switching active email accounts, repeat steps 1 and 2 to ensure your preferred email is always up-to-date.

Although you are able to indicate a preferred email address in UAOnline, many faculty and departments at UAF will communicate with you only through your alaska.edu (http://alaska.edu/) address. You are responsible for knowing — and when appropriate, acting on — the contents of all university communications sent to your university-generated email address.

Class Standing

Undergraduate Students

Class standing is determined by the total credits you have earned.

<table>
<thead>
<tr>
<th>Class</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>First-year</td>
<td>0-29 credits</td>
</tr>
<tr>
<td>Sophomore</td>
<td>30-59 credits</td>
</tr>
<tr>
<td>Junior</td>
<td>60-89 credits</td>
</tr>
<tr>
<td>Senior</td>
<td>90 or more</td>
</tr>
</tbody>
</table>

Transfer students are given class standing based on the number of transfer credits accepted by UAF. Nondegree students are registered without class standing.

Postbaccalaureate Students

Students who are in a postbaccalaureate program have a class standing of ‘postbaccalaureate.’

Graduate Students

Students are given the class standing of ‘graduate’ only after being officially admitted to a graduate degree or certificate program.

Full- or Part-Time Status/Study Load

Undergraduate Students

Undergraduate students registered for 12 or more semester credits are classified as full-time students, and those enrolled in 6 credits are considered part-time students. To complete an undergraduate program in four years, you must earn 15 or more credits each semester. You may enroll in up to 18 credits per semester without special permission. To enroll in more than 18 credits you need a 3.0 cumulative GPA and an overload approval from your advisor.

Enrollment in the two-week WINTERmester and MAYmester summer sessions is limited to 3 credits per session. Enrollment in the six-week summer session is limited to 7 credits per session, and enrollment in the 12-week summer session is limited to 14 credits.

Credits carried at any UA unit (or any combination of UAF/UAA/ UAS) are used to determine study-load hours and full-time or part-time classification. Audited courses and courses taken for credit by examination are not included in the study-load computation.

Graduate Students

A graduate student registered for 9 or more semester credits, with 3 or more at the 600 level, is classified as a full-time student. A graduate student enrolled in 5-8 credits is classified as part-time. Except in unusual circumstances, enrollment in the fall/spring semesters is limited to 1 credit per week. You may enroll in up to 14 credits per semester without special permission. To enroll in 15-19 credits you must be in good standing and obtain an overload approval from your advisor and department chair. Enrollment in more than 19 graduate credits will be allowed only in extraordinary circumstances, and requires good standing and overload approval from your advisor, department chair, college/school and the dean of the graduate school.

Enrollment in the two-week WINTERmester and MAYmester summer sessions is limited to 3 credits per session. Enrollment in the six-week
summer session is limited to 7 credits per session, and enrollment in the 12-week summer session is limited to 14 credits.

Credits carried at any UAF department are considered in determining study-load hours and full-time or part-time classification. Audited courses are not included in the study-load computation.

**Undergraduate Credit Loads and Overloads**

Undergraduate students in good standing may take up to 18 credits in a regular (fall/spring) semester. Students who are on academic probation are limited to 13 credits per regular semester; students who have been academically disqualified are limited to 10 credits per regular semester.

For financial aid and enrollment reporting purposes, AUGUSTmester is included with the fall semester, WINTERmester is included with spring and MAYmester is included with summer. Students may enroll for a maximum of:

<table>
<thead>
<tr>
<th>TERM</th>
<th>COMPONENT TERMS</th>
<th>MAX CREDITS</th>
<th>COMBINED MAX CREDITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td>AUGUSTmester</td>
<td>3</td>
<td>21</td>
</tr>
<tr>
<td>Fall semester</td>
<td></td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>Spring</td>
<td>WINTERmester</td>
<td>3</td>
<td>21</td>
</tr>
<tr>
<td>Spring semester</td>
<td></td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>Summer</td>
<td>MAYmester</td>
<td>3</td>
<td>17</td>
</tr>
<tr>
<td>Summer 6-week</td>
<td></td>
<td>7 each</td>
<td></td>
</tr>
<tr>
<td>session I or II</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Summer 12-week</td>
<td></td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>session</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Students who wish to take more than 18 credits in a regular fall/spring semester (not including AUGUST/WINTERmester) must have a cumulative GPA of 3.0 or higher. Any student in good standing seeking an overload of 19 to 23 credits must get advisor approval; for more than 23 credits, or for any student with less than a 3.0 GPA, the dean of the student’s college or school must also approve.

1. **WINTERmester 2021 no courses offered.**

**Grading Options**

**Auditing**

Students who want to enroll in one or more courses for informational purposes may only register as an auditor if space is available and auditing is permitted in the class. You pay the standard credit fees for the course, but the credits are not included in the computation of study load for full-time/part-time determination or for overload status.

The requirement, acceptance and review of work, and lab privileges are at the discretion of the instructor. A grade of AU (audit) is granted to students who complete an audited course, but no credit is awarded. Audited courses do not apply toward degree requirements, and they will not transfer to other institutions.

When you register you should indicate on the registration form your desire to audit a course. Students who want to change from audit to credit must request the change before the deadline to add a course. Requests made after the third Friday after the first day of instruction must be approved by the instructor of the course. All changes must be made before the deadline for student-initiated withdrawals.

Instructors set the requirements under which an AU grade is to be recorded, and they must submit AU for students who satisfy requirements. Auditors not receiving an AU grade receive a W grade. If you have audited a class, you cannot request local credit by exam for that class for a period of at least one year.

**Changing from Credit to Audit**

Courses that have the audit option available may be changed from credit to audit (or audit to credit) status prior to the add/drop deadline without the permission of the instructor. Changes after the add/drop deadline can be made with approval by the instructor until the last day for student-initiated withdrawals.

**Credit/No-Credit Option**

Undergraduates only — The credit/no-credit option encourages students to explore areas of interest not necessarily related to their major. This option may be used for one undesignated elective (an elective that is not specifically required for your major) each semester. The deadline for choosing the credit/no-credit option is the third Friday after the first day of instruction in a semester. The instructor does not know your status in the course, and you complete the course the same way as other students in the class. Credit for the course is awarded if your performance is at the C- grade level or higher; if your performance falls below that level, the course will not appear on your academic record. In either case, the course will not be included in any GPA calculations. If credit is granted, a CR grade will be entered for the course.

Under the credit/no-credit option, students may take undesignated elective courses or courses to meet the minimum credit requirements for a degree. Major or minor requirements and those specified as foundation courses are not allowed.

**Grading System and Grade Point Average Computation**

All course grades are letter grades unless otherwise specified in the class schedule. The method of grading (letter or pass/fail) is an integral part of the course structure and is included in the course description. Instructors are expected to state their grading policies in writing at the beginning of each course. Grades appearing on academic records are:

- **A** (including A+ and A-) indicates a thorough mastery of course content and outstanding performance in completion of course requirements.
- **B** (including B+ and B-) indicates a high level of acquired knowledge and performance in completion of course requirements.
- **C** (including C+ and C-) indicates a satisfactory level of acquired knowledge and performance in completion of course requirements.
- **D** (including D+ and D-) indicates a minimal level of acquired knowledge and minimal performance in completion of course requirements. This grade does not satisfy requirements for courses in the major, minor, core or graduate programs.
Grading System and Grade Point Average Computation

The student must request the extension in writing prior to the extended illness of the student. An extension may be granted in extraordinary circumstances which are beyond the student's control, such as sickness, or indifference are not acceptable reasons for an I grade. For undergraduate courses, the grade will automatically change to a W (withdrawn) after two years unless an extension is requested and granted by the registrar.

Incomplete — An incomplete is a temporary grade used to indicate that the student has satisfactorily completed (C (2.0) or better) the majority of work in a course but for personal reasons beyond the student's control, such as sickness, has not been able to complete the course during the regular semester. Normally, an incomplete is assigned in a case when the student is current in the class until at least the last three weeks of the semester or summer session. Negligence or indifference are not acceptable reasons for an I grade. Normally, a student will initiate a request for an incomplete. If approving the request, the instructor will send a copy of the approval, a statement of the work remaining and the timeline for making up the incomplete to both the student and the Registrar. If the instructor assigns a grade of incomplete without the student having requested it, the instructor will send a statement of the work remaining and the timeline for making up the incomplete to both the student and Registrar. An incomplete must be made up within one year or it will automatically be changed to an F grade. One year is the longest amount of time allowable for completion of the I. The I grade is not computed in the student’s GPA until it has been changed to a regular letter grade by the instructor or until one year has elapsed, at which time it will be computed as an F. A senior cannot graduate with an I grade in either a university or major course requirement. To determine a senior’s GPA for honors at graduation, the I grade will be computed as a failing grade. In extraordinary circumstances which are beyond the student’s control (such as military deployment or major and extended illness of the student), an extension may be granted. The student must request the extension in writing prior to the original deadline date and the request must be approved by the instructor, the dean, and the provost.

No Basis — Instructors may award a No Basis grade if there is insufficient student progress and/or attendance for evaluation to occur. No credit is given, nor is NB calculated in the GPA. This is a permanent grade and may not be used to substitute for the Incomplete. It cannot be removed by later completing outstanding work.

Not Submitted — Grade not submitted by instructor.

Non-Graded — Used for sections that are not graded, usually continuing education units (CEUs) or lab sections. Has no impact on GPA calculation.

The letter grades A, B, C and D may include a “+” or “-” to indicate that a student’s level of performance is slightly higher or lower than that of the letter grade alone.

• Computing your GPA

Your grade point average is a weighted numerical average of the grades you earn in your courses at UAF. To compute your GPA, divide the total number of credits you have attempted into the total number of grade points you have earned. Grade points are calculated by multiplying the number of grade points awarded, according to the chart below, by the number of credits attempted for the course. The following grades are figured in your GPA: A+, A, A-, B+, B, B-, C+, C, C-, D+, D, D- and F. Grades of I, DF, W, R, NB, AU and CR do not carry grade points and do not affect your GPA. Noncredit courses, transfer credits and credit by examination do not affect the GPA calculations. Your “graduating GPA” is your cumulative grade point average at the time of graduation. If, after earning a bachelor’s degree, you take more classes from UAF as a nondegree student, grades for those courses won’t be factored into your official graduating GPA. The exception is students who are officially admitted to a second degree program.

• Repeating Courses

All grades (original and retakes) for a course completed at UAF are included on your academic record, but only the last grade earned for a course is computed in your GPA unless the course is one that can be repeated for credit. For purposes of calculating honors for graduation, all courses (even those repeated) are included in the GPA.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Grade points per credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>4.0</td>
</tr>
<tr>
<td>A</td>
<td>4.0</td>
</tr>
<tr>
<td>A-</td>
<td>3.7</td>
</tr>
<tr>
<td>B+</td>
<td>3.3</td>
</tr>
<tr>
<td>B</td>
<td>3.0</td>
</tr>
<tr>
<td>B-</td>
<td>2.7</td>
</tr>
<tr>
<td>C+</td>
<td>2.3</td>
</tr>
<tr>
<td>C</td>
<td>2.0</td>
</tr>
<tr>
<td>C-</td>
<td>1.7</td>
</tr>
<tr>
<td>D+</td>
<td>1.3</td>
</tr>
<tr>
<td>D</td>
<td>1.0</td>
</tr>
<tr>
<td>D-1</td>
<td>0.7</td>
</tr>
<tr>
<td>F</td>
<td>0.0</td>
</tr>
</tbody>
</table>
Minimum grade possible for a course to count toward general education requirements, major, minor or degree requirements, or as a prerequisite for another course

Minimum grade possible to earn credit for a course

Note: Some degree programs require C or higher for their major or minor requirements. Check program listings for your degree requirements.

Example of Grade Point Average Computation

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Grade</th>
<th>Credits x Grade per credit</th>
<th>= Grade Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL F111X</td>
<td>4</td>
<td>A</td>
<td>4 cr x 4 pts</td>
<td>16</td>
</tr>
<tr>
<td>COJO F131X</td>
<td>3</td>
<td>D+</td>
<td>3 cr x 1.3 pts</td>
<td>3.9</td>
</tr>
<tr>
<td>WRTG F111X</td>
<td>3</td>
<td>C-</td>
<td>3 cr x 1.7 pts</td>
<td>5.1</td>
</tr>
<tr>
<td>MATH F122X</td>
<td>3</td>
<td>B-</td>
<td>3 cr x 2.7 pts</td>
<td>8.1</td>
</tr>
<tr>
<td>HIST F131</td>
<td>3</td>
<td>F</td>
<td>3 cr x 0 pts</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16</strong></td>
<td></td>
<td></td>
<td><strong>33.1</strong></td>
</tr>
</tbody>
</table>

33.1 grade points ÷ 16 credits = 2.07 GPA

Attendance

UAF is committed to student success and academic integrity. UAF faculty expect that students are committed to academic achievement. You are expected to adhere to the class attendance policies set by your instructors.

General Absences: If you miss class, you are responsible for conferring with your instructor as soon as possible concerning your absence, and to discuss the possibilities for arranging alternative learning opportunities. Note that some departments drop students who miss the first day of class and who fail to obtain their instructor’s prior approval for the absence.

UAF-Sanctioned Absences: If you are scheduled to miss class for an academic requirement or to represent UAF in an official capacity (e.g., NCAA athletic competition, music performance, research opportunities), you must notify your instructor in writing within the first five days classes are in session in the semester in which the absences will occur. The notification should list all scheduled absences and bear the signature of a UAF school official.

Instructors are encouraged to make reasonable accommodations for students who miss class to participate in these official, UAF-recognized activities. However, it is your responsibility to follow up the notification of absence by discussing alternative learning opportunities with your instructors before the end of the drop/add period (typically the second Friday of the semester). Doing so will allow you to drop the class and to add another if, after a good faith effort, you and your instructor cannot arrange for comparable learning opportunities that would enable you to be successful in the class.

Extended Absences: The University of Alaska Fairbanks recognizes that students may need to miss more classes than allowed by a particular instructor as specified in course policies.

Extended absences are defined as missed classes or course work by students beyond what is permissible by the instructor’s written course policies. Students may need to miss class and/or course work for a variety of reason, including, but not limited to:

- Bereavement
- Personal illness or injury
- Serious illness of a friend, family member or loved one
- Military obligations
- Jury service
- Other emergency or obligatory situations

When practicable, students should first contact their instructor to ask about the possibilities for taking an extended absence. If assistance from the instructor is not immediately available, students may wish to request formal assistance from the Center for Student Rights and Responsibilities (https://www.uaf.edu/csrr/).

To request an extended absence, students must submit a form as soon as practicable after realizing their need to miss class and/or course work. The request may be made by filling out the electronic form (https://cm.maxient.com/reportingform.php?UnivofAlaska&layout_id=13) that is processed by the Center for Student Rights and Responsibilities, stopping by the office or calling 907-474-7317.

The Center for Student Rights and Responsibilities shall verify the request utilizing supporting documentation, e.g., note from a health care provider, obituary, jury summons, etc. This is followed by a letter being sent to the requesting student’s instructors with a request to work with the student. The letter shall be signed by a university official. A copy of the letter shall be sent to the student’s assigned advisor. In the event the student does not have an assigned advisor, the copy of the letter shall be sent to the Vice Provost.

The instructor and student will each make a good faith effort to strategize how the student may be successful in the course in spite of an extended absence. Options include, but are not limited to:

- Alternative learning opportunities
- Makeup exams
- Submitting assignments late
- Other reasonable accommodations

In the event that the instructor and student are unable to reach a mutual agreement in spite of their good faith efforts, the student may withdraw from the class before the withdrawal deadline, submit an appeal for late withdrawal after the deadline, may be eligible to request an incomplete (I) grade, or receive a no basis (NB) grade. Students should consult with their assigned academic advisor and/or contact the Center for Student Rights and Responsibilities for assistance. Students must realize that their extended absence may have other, nonacademic impacts, including but not limited to:

- Financial aid
- Scholarships
- Health insurance
• University housing

Midterm Progress Reporting

Midterm progress reporting helps students gauge their class performance and, if necessary, seek assistance early in the term. Instructors are responsible for ensuring that students are aware of the grading policy for a course and that homework, exams and other assignments are returned to students in a timely manner. Instructors are asked to submit midterm progress grades within the first four to six weeks of the semester.

Academic Standards

UAF’s scholastic standards are designed to help students take action before their academic record deteriorates to the point that readmission to UAF or another institution is difficult. In all cases involving poor scholarship, students are encouraged to consult with their advisor, instructors or dean.

Undergraduate and certificate students are subject to scholastic action if they fail to earn a GPA of 2.0 at the end of the semester. Scholastic action may result in warning, probation or disqualification from the university.

Catalog Year

UAF defines catalog year as beginning in the fall and ending at the conclusion of the summer semester. For example, the 2021-2022 catalog year includes fall 2021, spring 2022 and summer 2022.

Good Standing

Undergraduate students — You are in good standing if your cumulative GPA and most recent semester GPA are 2.0 or better.

Graduate students — To maintain good academic standing in UAF graduate programs, students must:

a. Maintain a cumulative GPA of 3.0 in courses taken since admission to graduate school. Before advancing to candidacy, however, a cumulative GPA of 3.0 is required. You must earn at least a B grade in 400-level courses.

b. Be registered at UAF with a minimum of six graduate or 400-level credits per year unless on an approved leave of absence.

c. Abide by all parts of the Student Code of Conduct.

d. Have a current graduate study plan or an advancement to candidacy submitted and approved unless you are within the first year of graduate study.

e. Have on file with the Graduate School by May 15 of each year an annual report from the graduate advisory committee certifying satisfactory progress. This is the responsibility of the student. Students starting in January need not submit an annual report until May of the next academic year. If a satisfactory annual report is not filed as specified, the student may be placed on probation.

f. Pass any required qualifying exams or comprehensive exams. Departments may set the number of times a student may retake an exam.

Academic Honors

Undergraduate and certificate students — To be eligible for academic honors at the end of a semester, you must be a full-time student in a UAF undergraduate degree or certificate program who has completed at least 12 UA institutional credits graded with the letter grades A+, A, A-, B+, B, B-, C+, C, C-, D+, D, D- or F. If you have received an incomplete or deferred grade, your academic honors cannot be determined until those grades have been changed to permanent grades. Academic honors are recorded on your permanent record. You will make the chancellor’s list with a semester GPA of 3.9 or better, or the dean’s list with a GPA of 3.5-3.89. UAF announces the students who have earned honors each semester. Students with incompletes or deferred grades that are changed after publication of honors will not be announced separately. If you’ve requested that information not be released about you (under FERPA), your name will not be released to the media.

Warning

Students who have either a semester or a cumulative GPA below 2.0 are placed or continued on academic warning. Students on academic warning will be contacted and instructed to meet with an advisor to discuss academic support resources.

Probation

Undergraduate students — Students whose semester and cumulative GPA falls below 2.0 after any semester, including the summer session, will be put on academic probation. Students on probation may not enroll in more than 13 credits a semester unless an exception is granted by the appropriate dean. Probation may include additional conditions as determined by the dean of the college or school in which the student’s major is located. Students on probation will be referred for developmental advising/education and/or to an advising or support counseling center. The student should work with an academic advisor to prepare an academic plan for achieving a higher GPA. Removal from probation requires the student’s cumulative and semester GPAs to be at least 2.0.

Graduate students — Probationary status indicates a student is not in good standing. When a student is placed on probation, the dean of the school or college and the advisory committee will tell the student what requirements are necessary to return to good standing. If a student does not return to good standing by the end of two semesters, he or she may be dismissed from the degree program.

Academic Disqualification

Undergraduate Academic Disqualification — Academic Disqualification is the status assigned to those undergraduate students who begin a semester on academic probation (including students admitted on probation for that term) or are continuing on probation and fail to earn a semester GPA of 2.0 or higher. Academically disqualified students are ineligible for most types of financial aid.

The student’s program will be changed to inactive and the student will not be allowed to attend UAF for one academic (fall or spring) semester. After non-attendance for either fall or spring semester, the student may complete a form for readmission. A student may appeal the academic disqualification immediately.

Readmission — An academically disqualified student who desires to continue admittance to the same program or another baccalaureate program may submit a request for readmission after not attending the University of Alaska Fairbanks for one academic semester. The student should complete a form for readmission, which includes a plan for academic success. This form must be reviewed and approved by an academic advisor. Completed readmission forms must be submitted to the Office of the Registrar no later than the first day of instruction in the semester for which a student wishes to be reinstated. An academically
Academic Dismissal

Graduate students — If recommended by the department chair, graduate advisory committee and dean of the college or school, and approved by the dean of the Graduate School, a student will be dismissed because of unsatisfactory performance. Unsatisfactory performance is deemed as one or more of the following:

a. Exceeding maximum time limit for degree.

b. Not being registered at UAF for a minimum of six credits per year unless on approved leave of absence.

c. Having less than a 3.0 cumulative GPA for courses taken since admission to graduate school.

d. Being on probationary status for more than two consecutive semesters.

e. Violating the Student Code of Conduct.

f. Lacking progress as judged by the advisory committee and documented on the student’s annual report.

g. Having substantive inaccuracies in the original application for admission.

If the student does not have a graduate advisory committee, dismissal can occur upon the recommendation of the department chair and the dean of the college or school, with approval from the dean of the Graduate School.

Appeal of Academic Dismissal — A student who wishes to appeal an academic disqualification decision and remain in the current baccalaureate-level program may submit an appeal form, available at the Office of the Registrar. Appeals must be initiated no later than the first day of instruction in the semester for which a student wishes to be reinstated. The appeal form with a full academic plan for success will be reviewed by a committee for a first-step approval and will then be approved by the dean of the college or school where readmission is being requested.

Should a second academic disqualification be received, the student will be required to sit out one year before being readmitted to UAF, CTC or CRCD.

Should a third academic disqualification be received, the student will be required to sit out two years before being readmitted to UAF, CTC or CRCD.

Academic Decisions Other Than Grades

Students have the right to appeal academic decisions other than grades. Decisions that fall into this category include, but are not limited to, denial of admission, faculty-initiated withdrawal, dismissal from program or pass/fail decisions of a faculty committee on non-course examinations (such as qualifying, comprehensive or thesis examinations).

Before beginning the informal or formal appeal process, the student should first address the person who made the decision. Often problems can be resolved and misunderstandings cleared up through this step. If the student does not find the outcome acceptable, the next step is an informal appeal.

The informal appeal must be submitted to the academic leader of the department or program within 15 class days after the beginning of the next regular semester. An extension to the deadline may be approved by the academic leader with a written request and supporting documentation from the student. A deadline extension will be limited to one semester, but every effort should be made to complete the appeal process within the current semester.

If the student wishes to appeal the decision of the academic leader, the student can file a formal appeal with the Office of the Provost. The
formal appeal must be made in writing within five class days after the student has learned the outcome of the informal review. By submitting a formal request for review, the student acknowledges that no additional mechanisms exist within the university for the informal review of the decision.

Detailed “Appeals Policy for Academic Decisions Other Than Assignment of Grades” can be found at the Faculty Senate policies and procedures website (https://www.ua.gov/faculty-senate/policies-procedures/).

The academic appeals advisor helps undergraduate students with the policies and procedures associated with grade appeals, appeals policy for academic decisions other than assignment of grades, academic petitions and financial aid satisfactory progress appeals.

The academic appeals advisor is a professional academic advisor in the Academic Advising Center. The academic appeals advisor helps students determine whether the appeal or petition is appropriate, reviews documentation relevant to the appeal or petition, and navigates the process for the appeal or petition submission. In the preceding sentence, “appropriate” does not refer to whether an appeal is likely to be successful, but rather whether the appeal falls within the purview of the grade or academic decisions appeal process. The academic appeals advisor does not guarantee the appeal or petition will be successful and will not comment on the likelihood of acceptance. Students are responsible for writing the appeal or petition, for gathering and recording relevant documentation, and for submitting the appeal or petition with the proper signatures.

Contact the Academic Advising Center at 907-474-6396 or uaf-advising@alaska.edu.

Students’ Rights and Responsibilities

The university subscribes to principles of due process and fair hearings as specified in the “Joint Statement on Rights and Freedoms of Students.” This document can be found at the website of the Center for Student Rights and Responsibilities (http://www.uaf.edu/csrr/). You are encouraged to read it carefully.

Most students adjust easily to the privileges and responsibilities of university citizenship. The university attempts to provide counsel for those who find the adjustment more difficult. UAF may terminate enrollment or take other necessary and appropriate action in cases where a student is unable or unwilling to assume the social responsibilities of citizenship in the university community.

Student Code of Conduct

1. As with all members of the university community, the university requires students to conduct themselves honestly and responsibly and to respect the rights of others. Students may not engage in behavior that disrupts the learning environment, violates the rights of others or otherwise violates the Student Code of Conduct (Code), university rules, regulations, or procedures. Students and student organizations will be responsible for ensuring that they and their guests comply with the Code while on property owned or controlled by the university or at activities authorized or sponsored by the university.

2. The university may initiate disciplinary action and impose sanctions on any student or student organization found responsible for committing, attempting to commit, or intentionally assisting in the commission of any of the following prohibited forms of conduct:
   a. cheating, plagiarism or other forms of academic dishonesty;
   b. forgery, falsification, alteration or misuse of documents, funds, property or electronic records;
   c. damage or destruction of property;
   d. theft of property or services;
   e. harassment;
   f. discrimination;
   g. hazing;
   h. endangerment, assault or infliction of physical harm;
   i. gender-based or sexual misconduct;
   j. disruptive or obstructive actions;
   k. mistreatment of animals;
   l. misuse of firearms, explosives, weapons, dangerous devices or dangerous chemicals;
   m. failure to comply with university directives;
   n. misuse of alcohol;
   o. misuse of drugs or other intoxicants;
   p. violation of regents’ policy, university regulation, rules or procedures; or
   q. any other actions that result in unreasonable interference with the learning environment or the rights of others.

3. Examples of actions that constitute these prohibitions will be described in the university regulation and MAU rules and procedures.

4. This policy and university regulation and MAU rules and procedures are not intended to define prohibited conduct in exhaustive terms, but rather to set forth examples to serve as guidelines for acceptable and unacceptable behavior.

The university has established procedures for enforcing the UA code of conduct. Each student at the university shall be afforded due process in all disciplinary matters. For a complete guide to these procedures, please refer to Board of Regents Policy and University Regulation 09.02 (http://www.alaska.edu/bor/policy/09-02.pdf) (PDF).

For additional information and details about the student academic misconduct policy, please visit the Center for Student Rights and Responsibilities (http://www.uaf.edu/csrr/).

Student Behavioral Standards

Education at the university is conceived as training for citizenship as well as for personal self-improvement and development. Generally, UAF behavioral regulations are designed to help you work efficiently in courses and live responsibly in the campus environment. They are not designed to ignore your individuality but rather to encourage you to exercise self-discipline and accept your social responsibility. These regulations, in most instances, were developed jointly by staff and students. Contact the Center for Student Rights and Responsibilities for more information.

UAF provides one level of administrative oversight for decisions made by university employees. Individuals are encouraged to first attempt informal resolution with the employee making the decision or the employee’s supervisor. An individual seeking further review has the option of filing a written request with the employee’s supervisor for decisions made by university employees that are not covered in other university policies, regulations and procedures. The request must be signed and include all relevant information to be considered during the review. The supervisor...
will consider the information available at the time of the review and provide written notification of the outcome to the individual who filed the request. The supervisor's written response will be the final decision within the university.

Information Release and FERPA

The Office of the Registrar is responsible for keeping student education records. The Family Educational Rights and Privacy Act of 1974, as amended, protects the privacy of education records, establishes the right of students to inspect and review their education records, and provides guidelines for the correction of inaccurate or misleading data through informal and formal hearings.

FERPA affords students certain rights with respect to their education records. They are:

1. The right to inspect and review the student’s education records within 45 days of the day the university receives a request for access. Students should submit a written (letter or fax) request to the Office of the Registrar that identifies the record(s) they wish to inspect. The registrar will make arrangements for access and notify the student of the time and place where records may be inspected. If the records are not maintained by the Office of the Registrar, registrar-designated staff will refer the student to the appropriate personnel or office to access the record.

2. The right to request the amendment of a record they believe is inaccurate or misleading. A student may ask the university to amend the student’s education records if he/she believes they are inaccurate or misleading or otherwise in violation of the student’s privacy or other rights. If the university decides not to amend the record as requested by the student, the university will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. If the university denies the amendment request after the hearing, the student is given the right to insert a statement in the education record.

3. The right to consent to disclosures of personally identifiable information contained in the student’s education records, except to the extent that FERPA authorizes disclosure without consent. The university may release, without consent, certain directory information.

The university discloses education records without a student’s written consent under the FERPA exception for disclosure to school officials with legitimate educational interests. A school official is a person designated by the university to perform an assigned function on behalf of the university, including an individual employed by the university as an administrator, supervisor, instructor or administrative staff member (including law enforcement unit personnel and health staff) or a volunteer; a person or company with whom the institution has contracted to perform a service instead of using university employees (such as an auditor, attorney or other third party); a member of the board of regents; a government entity or any other entity with which a student is placed as part of his or her education; or a student serving on an official committee (such as a judicial or academic review committee or scholarship committee) or helping another university official perform his or her tasks. A university official has a legitimate educational interest if the official needs the student’s education record to perform work appropriate to his or her position.

The following information is designated as directory information by the university:

a. Names of students
b. Dates of attendance at the university
c. Program/major field(s) of study
d. Degrees and certificates received including dates
e. Participation in officially recognized university activities
f. Academic and co-curricular awards, honors, and scholarships received and dates received
g. Weight and height of students on athletic teams
h. Students’ email addresses
i. Hometown, city and state

Students may inform the Office of the Registrar in writing that they do not give permission for the university to release their directory information, or they may submit the request through UAOnline (http://uaonline.alaska.edu). The request is valid until a subsequent request to release directory information is received in writing or through UAOnline (http://uaonline.alaska.edu).

Students have the right to file a complaint with the U.S. Department of Education concerning alleged failures by the university to comply with the requirements of FERPA. The name and address of the office that administers FERPA is:

Family Policy Compliance Office
U.S. Department of Education
400 Maryland Avenue, SW
Washington, DC 20202-5920

The University of Alaska Board of Regents’ policy and university regulation 09.04 regarding education records can be reviewed at the University of Alaska Regents’ Policy and University Regulations site (http://www.alaska.edu/bor/policy-regulations/).

Honors and Scholarships

Names of students receiving awards or scholarships or who appear on the dean’s list or chancellor’s list are released to the media unless a student has requested that no directory information be released. Instructions for electing FERPA confidentiality (https://www.alaska.edu/studentservices/ferpa/elect/) are available online.

Nondiscrimination Policy and Disclaimer

Notice of Nondiscrimination

( BOR POLICY & REGULATION 01.02.020 (HTTP://ALASKA.EDU/BOR/POLICY-REGULATIONS/))

The University of Alaska does not discriminate on the basis of race, religion, color, national origin, citizenship, age, sex, physical or mental disability, status as a protected veteran, marital status, changes in marital status, pregnancy, childbirth or related medical conditions, parenthood, sexual orientation, gender identity, political affiliation or belief, genetic information, or other legally protected status.

When implementing this commitment, the University is guided by Title VI and VII of the Civil Rights Act of 1964 and Civil Rights Act of 1991; Title IX of the Education Amendments of 1972; Executive

The University's commitment to nondiscrimination, including against sex discrimination, applies to students, employees, and applicants for admission and employment.

This policy therefore affects employment policies and actions, as well as the delivery of educational services at all levels and facilities of the University. Further, the University's objective of ensuring equal opportunity will be met by taking affirmative action: i.e., making intensified, goal-oriented efforts to substantially increase the participation of groups where their representation is less than proportionate to their availability; providing reasonable accommodations to employees and students with disabilities; and ensuring that employment opportunities are widely disseminated to agencies and organizations that serve underrepresented protected classes.

The following person has been designated to handle inquiries regarding the nondiscrimination policies:

University of Alaska Anchorage
Director, Office of Equity and Compliance
3890 University Lake Drive, Suite 108
Anchorage, AK 99508
Phone: 907-786-6473
E-mail: uas_jytitle9@alaska.edu
Website: http://www.uaf.edu/about/titleix/

University of Alaska Southeast
Director of Human Resources
11066 Auke Lake Way
Juneau, Alaska 99801
Phone: 907-796-6036
E-mail: gcheney@alaska.edu
Website: http://www.uaa.alaska.edu/about/equity-and-compliance/

University of Alaska Fairbanks
Director, Department of Equity and Compliance (http://www.uaf.edu/equity/)
355 Duckering Building, 1760 Tanana Loop
PO Box 756910
Fairbanks, AK 99775-6910
Phone: 907-474-7300
E-mail: uaf-deo@alaska.edu
Website: http://www.uaf.edu/equity/

For sex discrimination claims or other inquiries concerning the application of Title IX of the Education Amendments of 1972 and its implementing regulations, individuals may contact the University's Title IX Coordinator or the Assistant Secretary in the U.S. Department of Education Office of Civil Rights:

UAA Title IX Coordinator
3890 University Lake Drive, Suite 108, Anchorage, AK 99508
Phone: 907-786-4680
E-Mail: uaa_titleix@uaa.alaska.edu

Website: www.uaa.alaska.edu/about/equity-and-compliance/

UAF Title IX Coordinator (http://www.uaf.edu/titleix/)
355 Duckering Building, 1760 Tanana Loop, Fairbanks, AK 99775
Phone: 907-474-7300
E-Mail: uaf-tix@alaska.edu
http://www.uaf.edu/titleix/

UAS Title IX Coordinator
11066 Auke Lake Way, Juneau, AK 99801
Phone: 907-796-6036
E-Mail: uas_jytitle9@alaska.edu
http://www.uas.alaska.edu/policies/titleix.html

Office for Civil Rights, Seattle Office (http://www2.ed.gov/about/offices/list/ocr/docs/howto.html)
U.S. Department of Education
915 Second Ave., Room 3310
Seattle, WA 98174-1099
Phone: 206-607-1600
TDD: 800-877-8339
E-mail: OCR.Seattle@ed.gov
Website: http://www2.ed.gov/about/offices/list/ocr/docs/howto.html

For employment or educational discrimination, students, parents, employees and applicants for employment may file a complaint with the U.S. Department of Education within 180 calendar days of the alleged discriminatory act.

Office for Civil Rights, Seattle Office (http://www2.ed.gov/about/offices/list/ocr/docs/howto.html)
U.S. Department of Education
915 Second Ave., Room 3310
Seattle, WA 98174-1099
Phone: 206-607-1600
TDD: 800-877-8339
E-mail: OCR.Seattle@ed.gov
Website: http://www2.ed.gov/about/offices/list/ocr/docs/howto.html

For employment discrimination, employees and applicants for employment may file a complaint with the Equal Employment Opportunity Commission at the below addresses within 180 calendar days of the alleged discriminatory act.

Federal Office Building
909 First Avenue
Suite 400
Seattle, WA 98104-1061
Phone: 800-669-4000
Fax: 206-220-6911
TTY: 800-669-6820
Website: http://www.eeoc.gov/employees/charge.cfm

For educational discrimination, individuals may file a complaint with the U. S. Department of Justice (http://www.justice.gov/crt/how-file-complaint/#three)

U.S. Department of Justice Civil Rights Division
950 Pennsylvania Avenue, N.W.
Educational Opportunities Section, PHB
Washington, D.C. 20530
Phone: 202-514-4092 or 1-877-292-3804 (toll-free)
For employment or educational discrimination, individuals may file a complaint with the State of Alaska:

Alaska State Human Rights Commission (http://humanrights.alaska.gov)
800 A Street, Suite 204
Anchorage, AK 99501-3669
Anchorage Area: 907-274-4692
Anchorage Area TTY/TDD: 907-276-3177
Toll-Free Complaint Hot Line (in-state only): 800-478-4692
TTY/TDD Toll-Free Complaint Hot Line (in-state only): 800-478-3177
Website: http://humanrights.alaska.gov

For discrimination related to a Department of Labor funded grant, individuals may file a complaint with the U. S. Department of Labor (http://www.dol.gov/oasam/programs/crc/) within 180 calendar days of the alleged discriminatory act.

U.S. Department of Labor
ATTENTION: Office of External Enforcement
Director, Civil Rights Center
200 Constitution Avenue, NW
Room N-4123
Washington, DC 20210
Fax: 202-693-6505, ATTENTION: Office of External Enforcement (limit of 15 pages)
E-mail: CRCExternalComplaints@dol.gov
Website: http://www.dol.gov/oasam/programs/crc/index.htm

For discrimination related to a National Science Foundation funded grant, individuals may file a complaint with the National Science Foundation within 180 calendar days of the alleged discriminatory act.

National Science Foundation
Complaints Adjudication & Compliance Manager
Office of Diversity & Inclusion (http://www.nsf.gov/od/odi/) (ODI)
4201 Wilson Blvd., Rm. 255
Arlington, VA 22230
Phone: 703-292-8202
E-mail: tsisley@nsf.gov
Website: http://www.nsf.gov/od/odi/

Caring Statement
At the University of Alaska Fairbanks, the safety, security and well-being of our students, faculty, staff and visitors are our foremost concern. To help you make an informed decision and comply with the Clery Act, we publish an annual Campus Security Report. This report contains information from the three previous calendar years concerning reported offenses, arrests, crimes and disciplinary referrals that occurred on campus; in certain off-campus buildings owned or controlled by the university; and on public property within or immediately adjacent to and accessible from the campus. The report also includes institutional policies concerning campus security, alcohol and other drug use, crime prevention strategies, and how to report crimes, sexual assault and other related matters.

Catalog Disclaimer
This catalog and its contents shall not be construed as a contract between the University of Alaska Fairbanks and prospective or enrolled students. The catalog is merely a vehicle of information, including university policies, regulations, rules and procedures. Although every effort is made to ensure its correctness, regulations of the university and its program requirements change from time to time during the period any student is attending the University of Alaska Fairbanks; to the extent there is a conflict between this catalog and university policies, regulations, rules or procedures, the university policies, regulations, rules or procedures will control.

Accordingly, if regulations or program requirements of the university in any way conflict with information contained in this catalog, the current regulations and program requirements govern. The university reserves the right to initiate changes in any of its regulations or program requirements affecting operation of the university and its program requirements; such changes shall become effective upon whatever time periods are required by applicable statutes, university regulations or program requirements.

UAF is accredited by the Northwest Commission on Colleges and Universities, 8060 165th Ave. NE, Suite 100, Redmond, WA 98052.

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Veterans Affairs Educational Benefits, Tuition and Fees

Title 38 United States Code Section 3679(e) School Compliance Policy

As part of the Veterans Benefits and Transition Act of 2018, section 3679 of title 38, the University of Alaska Fairbanks (UAF) complies with the requirements as outlined below.

Note: A Covered Individual is any individual who is entitled to educational assistance under chapter 31, Vocational Rehabilitation and Employment, or chapter 33, Post-9/11 GI Bill® benefits.

- UAF permits any covered individual to attend or participate in the course of education during the period beginning on the date on which the individual provides to UAF Department of Military and Veteran Services a certificate of eligibility for entitlement to educational assistance under chapter 31 or 33, or a Statement of Benefits from the VA website e-benefits, or a VAF 28-1905 form for chapter 31 and ending on the earlier of the following dates:

  - The date on which payment from VA is made to UAF.
  - 90 days after the date UAF certified tuition and fees following receipt of the certificate of eligibility.
  - UAF will not impose any penalty, including the assessment of late fees, the denial of access to classes, libraries, or other institutional facilities, or the requirement that a covered individual borrow additional funds, on any covered individual because of the individual's inability to meet his or her financial obligations to UAF due to the delayed disbursement funding from VA under chapter 31 or 33.

In addition, the statute allows UAF to require chapter 31 and chapter 33 students to take the following additional actions:

1. Submit a certificate of eligibility for entitlement to educational assistance no later than the first day of a course of education.
2. Submit a written request (Certification Request Form) to use entitlement.

3. Provide additional information necessary to UAF for the proper certification of enrollment.

4. Make payment for a difference between the amount of the student’s financial obligation and the amount of the VA education benefits disbursement.

UAF will hold a student responsible for any portion of tuition and other fees not covered by the VA by the published fee payment deadline. A late fee may be assessed for account balances not covered by the VA education benefit disbursement. UAF Housing and Dining fees are not included in the deferred payment for tuition and fees. Students may contact the UAF Office of the Bursar to discuss available payment options if needed.

If students do not turn in a COE, or Statement of Benefits, and/or CRF by the first day of class, a late fee may be assessed.

VA payment reversals are due within 5 business days. Balances over $300 are subject to late fee assessment.

VA Chapter 30 and 35 students will follow standard student guidelines for payment or payment arrangements by the fee payment deadline.

*Gi Bill® is a registered trademark of the U.S. Department of Veterans Affairs (VA).*
COSTS AND FINANCIAL AID

Tuition and Fees

Tuition

Tuition is determined by the number of credit hours in which the student is enrolled, the level of the courses and the student’s residency status (see the 2020-2021 tuition table below).

- Undergraduate students are considered full time at 12 or more credits.
- Graduate students are considered full time at 9 or more credits.
- Students enrolled in no more than 4 credits per semester pay tuition at the resident rate.

2020-2021 TUITION

<table>
<thead>
<tr>
<th>Level of Courses</th>
<th>Resident</th>
<th>Nonresident</th>
</tr>
</thead>
<tbody>
<tr>
<td>100-200-level</td>
<td>$234/credit</td>
<td>$800/credit</td>
</tr>
<tr>
<td>300-400-level</td>
<td>$282/credit</td>
<td>$848/credit</td>
</tr>
<tr>
<td>500-level courses</td>
<td>varies</td>
<td>varies</td>
</tr>
<tr>
<td>600-level courses</td>
<td>$513/credit</td>
<td>$1079/credit</td>
</tr>
</tbody>
</table>

Note: Audited credits are charged at the same rate as other credits.

RESIDENT AND NONRESIDENT TUITION

Students eligible for Alaska resident tuition generally include:

- an Alaska resident, defined as a person who is a U.S. citizen or eligible noncitizen who has been physically present in Alaska for at least the past two years;
- students who received a State of Alaska Permanent Fund Dividend within the last 12 months and can certify they have been in Alaska for the past 12 months;
- military personnel on active duty, their spouses and dependent children;
- members of the National Guard, their spouses and dependent children;
- veterans of the U.S. armed forces, and their dependents, who are eligible for Veterans Affairs educational benefits;
- dependent children of a person who graduated and holds an associate, bachelor's, master's or doctoral degree from the University of Alaska;
- dependent children of an Alaska resident as evidenced by the most current federal income tax return filed within the past 16 months;
- students participating in the Western Interstate Commission on Higher Education Western Regional Graduate Program;
- students enrolled in 4 or fewer credit hours within the UA system during a semester;
- students from other states or provinces whose public universities waive nonresident tuition surcharges for Alaska residents, or who are from foreign cities and provinces with established Alaska sister city or sister province relationships;
- students designated by the UA Scholars Program as UA Scholars;
- participants of the University of Alaska College Savings Plan;
- spouse or dependent children of a University of Alaska employee; or
- students who graduated within the past 12 months from a qualified Alaska high school.

Students will be considered nonresident if within two years prior to applying for residency they:

- were absent from Alaska for an aggregate of more than 120 days for other than documented absences due to illness or attendance at another educational institution while maintaining Alaska residency;
- committed any act inconsistent with Alaska residency, such as claiming residency in another state or voting as a resident of another state;
- registered as a resident in an educational institution in another state; or
- paid tuition at the University of Alaska at the Western Undergraduate Exchange program rate.

To prove physical presence, students must provide documentation of one of the following:

- student moved household goods to Alaska at least two years ago;
- student’s lease, rental or ownership of real property in Alaska for at least the prior two years;
- student’s permanent employment in Alaska for at least the prior two years; or
- other documentation of Alaska residency for the two prior years deemed satisfactory by the UAF Office of Admissions.

Students applying for resident tuition assessment must file a residency form with the Office of Admissions before the published end of the add/drop period for regular semester-length courses for the semester for which residency is sought. Failure to file and provide adequate proof of physical presence by this date will waive any claim that the student was eligible for resident tuition assessment for that semester or prior semesters unless otherwise determined by the Office of Admissions.

Residency criteria, as paraphrased above, are determined by UA Board of Regents residency policy and regulations (http://www.alaska.edu/bor/policy/05-10.pdf). For more information and applications, students should contact the Office of Admissions (http://www.uaf.edu/admissions/).

Basic Student Fees

<table>
<thead>
<tr>
<th>Basic Student Fees</th>
<th>(per semester unless otherwise indicated)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fairbanks Campus and Rural Campus Consolidated Fees</strong></td>
<td></td>
</tr>
<tr>
<td>UAF, CTC, Juneau Fisheries and eCampus</td>
<td>$50 per credit</td>
</tr>
<tr>
<td>CRCD Campuses (Rural College, Bristol Bay, Interior Alaska, Kuskokwim, Northwest, Chukchi)</td>
<td>$20 per credit</td>
</tr>
<tr>
<td><strong>UA Facilities</strong></td>
<td>$6 per credit</td>
</tr>
<tr>
<td><strong>UA Network</strong></td>
<td></td>
</tr>
<tr>
<td>4 percent of tuition</td>
<td>varies ($9-$44 per credit)</td>
</tr>
<tr>
<td><strong>Parking Permit</strong></td>
<td></td>
</tr>
<tr>
<td>8 credits or fewer</td>
<td>$51</td>
</tr>
<tr>
<td>9 or more credits</td>
<td>$88</td>
</tr>
<tr>
<td>Annual permit</td>
<td>$153</td>
</tr>
</tbody>
</table>
CONSOLIDATED FEE

Cost: $50 per credit for UAF, CTC, Juneau Fisheries and eCampus

The nonrefundable consolidated fee provides students access to a variety of services that enhance their educational experience beyond the classroom and ensures the continuation and expansion of critical universitywide services for all students. The consolidated fee paid by each student supports these specific services: student government, student health and counseling center, student sustainability, student activities and services, libraries and digital resources, student recreation center, technology, eCampus delivery, and transportation. The consolidated fee is mandatory and cannot be negotiated, waived or reduced.

Cost: $20 per credit for CRCD campuses (Rural College, Bristol Bay, Interior Alaska, Kuskokwim, Northwest, Chukchi)

The nonrefundable consolidated fee provides students access to a variety of services that enhance their educational experience beyond the classroom and ensures the continuation and expansion of critical universitywide services for all students. CRCD campus students are assessed a reduced fee due to their distance from the Fairbanks campus, but they do receive access to UAF services through online or other methods. The consolidated fee paid by each student supports these specific services: telehealth and counseling, virtual recreation classes, streaming of sporting events, libraries and digital resources, and technology. The consolidated fee is mandatory and cannot be negotiated, waived or reduced.

DETAILED LIST OF SERVICES PROVIDED BY THE CONSOLIDATED FEE:

ASUAF
The Associated Students of the University of Alaska Fairbanks represent student views and concerns to the university administration, University of Alaska Board of Regents and Alaska Legislature. ASUAF also partially funds the publication of the UAF student online newspaper, the Polaris News; the student-managed ASUAF Concert Board; KSUA, the student radio station; and other media. Other services provided through ASUAF include a free half-hour attorney consultation, academic travel funding, subsidized student club activities, regular free coffee service, and much more. Contact ASUAF at 907-474-7355 or visit the ASUAF website (http://www.asuaf.com/).

ATHLETICS
Provides admission to all home athletic competitions and live streaming of Nanooks sporting events. Admission will only be guaranteed until the start of each event. The fee does not include postseason competition. For further details regarding event and ticket policies visit the Alaska Nanooks website (https://www.alaskananooks.com/).

LIBRARIES AND DIGITAL RESOURCES
Provides library services such as research assistance and instruction, online and digital resources, subscriptions for databases and journals, and improvements to library materials and spaces (physical and virtual) used by students.

RECREATION
Provides membership to the Student Recreation Center (SRC), Patty ice arena, Patty pool, Outdoor Adventures and virtual recreation classes. The SRC is a comprehensive fitness facility with equipment, courts, track, group fitness, intramurals and a climbing wall. The Patty ice rink provides recreational ice skating sessions. The Patty pool provides lap swim sessions. Outdoor Adventures has discounted equipment rentals, trips and an outdoor rock/ice wall. Some extra programs have additional fees associated; consult Nanook Recreation staff for details. Anyone under the age of 18 using the SRC and its facilities must be accompanied by a parent or guardian whose minimum age is 21 unless they are a full-time UAF student. Call 907-474-5886 for more information.

STUDENT ACTIVITIES AND SERVICES
Supports Nanook traditions such as Starvation Gulch, Winter Carnival and SpringFest as well as student activities and student life programs that enhance the out-of-class experience of students, and will provide ongoing operational and capital funding for programs.

STUDENT HEALTH AND COUNSELING CENTER
Provides basic medical and counseling services, including telehealth and counseling, at the Student Health and Counseling Center on the Fairbanks campus. See the Student Health and Counseling Center website (https://www.uaf.edu/chc/) for more information. You can contact the Student Health and Counseling Center at 907-474-7043.

STUDENT SUSTAINABILITY
Invests in energy-efficiency programs and renewable energy projects at UAF.

SUMMER ACTIVITY
Supports student activities.

ECAMPUS
Funds go toward academic and advising support, online student resources, exam proctoring services, technology upgrades, and enhancements to course delivery.

TECHNOLOGY
Supports technology initiatives including implementation of and access to UAF’s wireless network, delivering university-licensed software to all students, increasing the number of technology-enabled classrooms and computing spaces, and expanding and improving online and self-service environments.

TRANSPORTATION
Covers a portion of the costs of operating shuttle buses that provide transportation throughout campus and to various university facilities off campus.

UA FACILITIES FEE
Cost: $6 per credit
Who pays: All students
What’s covered: The UA facilities fee is assessed to all undergraduate and graduate students to address the capital reinvestment for university facilities and academic equipment. Capital reinvestment funds construction that modernizes university classrooms, laboratories, residence halls and other buildings so students have learning and living facilities that enhance the academic experience.

UA NETWORK FEE
Cost: 4 percent of tuition
- Lower-division: $9 per credit
- Upper-division: $11 per credit
- Graduate: $21 per credit
- Nonresident rate: $32 per lower-division (000-200 level) credit
- Nonresident rate: $34 per upper-division (300-400 level) credit
- Nonresident rate: $44 per graduate credit
Who pays: All students
What’s covered: The UA network charge covers rapidly rising costs, especially in the maintenance and enhancement of the universitywide technology infrastructure. The 4 percent network charge is applied on a per credit hour basis (rounded to the nearest dollar) to tuition, nonresident surcharges if applicable, and fees in lieu of tuition for credit and noncredit courses. The minimum network charge per course is $9.

COURSE FEES
Cost: Varies
Who pays: Students enrolled in courses with special fees. See the class schedule for individual classes
What’s covered: Some courses require special equipment, supplies or services and charge a materials fee in addition to tuition.

HEALTH INSURANCE
Student health insurance is not mandatory at UAF except for international students studying in F-1 or J-1 immigration statuses. The university does not provide a student health insurance program except for international students and students who are contracted with the Graduate School as teaching or research assistants on stipends or who are receiving graduate fellowships. Students without insurance who would like to obtain a plan may visit the Student Health and Counseling Center website (https://www.uaf.edu/chc/) for more information on shopping for a policy.

International students in F-1 or J-1 status are required to enroll in either the UAF-sponsored insurance plan or in a plan of their choice that meets regulatory compliance rules. Students must provide documentation of enrollment to International Programs and Initiatives before the fee payment deadline each semester. Students who do not enroll in an insurance plan approved by International Programs and Initiatives by the appropriate semester deadline will be dropped from classes at UAF.

Contracted teaching and research assistants on stipends and those receiving graduate fellowships are automatically enrolled in the UAF-sponsored plan as part of their benefits package. More information on this plan can be found at the Graduate School's website (https://www.uaf.edu/gradsch/).

The UAF-sponsored international student plan meets the Department of State insurance requirements for exchange visitors in J-1 status. However, this plan is not compliant with the federal Affordable Care Act (ACA). If you have questions, contact International Programs and Initiatives. The graduate insurance plan is ACA-compliant but does not meet the Department of State insurance requirements for exchange visitors in J-1 status.

PARKING PERMIT
Cost: Fall 2020/spring 2021, single vehicle, $51 for 8 or fewer credits; $88 for 9 or more credits; $153 annual permit. With any of these permit options, two or more vehicles (up to a total of four) may be registered for the multivehicle option for an additional $10. The hangtag allows one vehicle to be parked on campus at a time. (Campus residents may not purchase the multivehicle option. Employees are not eligible to purchase parking permits at student rates.)

Costs are based on the combined total credit hour enrollment at UAF, Community and Technical College, eCampus, or any class held at a UAF location where credit is given through another location.

Who pays: Students who park a vehicle at any on- or off-campus UA, UAF or Community and Technical College location are required to have a parking permit or permit displayed on the vehicle at all times, including evenings.

What’s covered: Parking in permit-required and general use lots and spaces at any on- or off-campus UA, UAF, or Community and Technical College location in Fairbanks

How to get your permit: Request your permit through UAF’s online parking system (https://uaf.edu/bursar/parkingservices/). Select the type of parking permit(s) needed, your delivery option and the payment method. You may instantly print a two-week temporary permit you can use until your permit arrives in the mail or you pick it up. Permits can also be purchased and picked up at the Bursar’s Office in Signers’ Hall. Please bring your current vehicle registration with you to ensure correct information for your file. Debit and credit card payments will no longer be accepted in person or over the phone at the Bursar’s Office. You can pay with either cash or check, or you can have the charge added to your Banner account.

How to pay: Complete your permit purchase at UAF’s online parking system (https://uaf.edu/bursar/parkingservices/). Payment options are all major credit cards or ‘student account,’ if you have added parking to your student account.

It is the responsibility of all students parking a vehicle on any UA property (on or off campus) to know UA parking regulations (https://uaf.edu/bursar/parkingservices/). For more information, call 474-7384 or email uaf-bursar@alaska.edu.

Other Fees

<table>
<thead>
<tr>
<th>Other Fees</th>
<th>(per use unless otherwise indicated)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application for Admission</td>
<td></td>
</tr>
<tr>
<td>Certificate or associate degree</td>
<td>$40</td>
</tr>
<tr>
<td>Baccalaureate</td>
<td>$50 ($75 if late)</td>
</tr>
<tr>
<td>Graduate</td>
<td>$75 ($100 if late)</td>
</tr>
<tr>
<td>Application for Graduation</td>
<td>$50 ($80 if late)</td>
</tr>
</tbody>
</table>
Tuition and Fees

Campus Housing

<table>
<thead>
<tr>
<th>Residence halls (per semester)</th>
<th>$2,550-$4,233¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fairbanks campus employees, family, and graduate housing</td>
<td>$923-$1,785 per month²</td>
</tr>
<tr>
<td>Kuskokwim Campus housing</td>
<td>Contact campus</td>
</tr>
</tbody>
</table>

Campus Mail Box

| Semester | $75 |
| Summer Only | $30 |

Credit by Examination | $40/credit |

Credit Card Transaction | 2.85 percent ($3 minimum) |

Credit for Prior Learning | $50 plus $10/credit |

Duplicate Tuition/Fees Receipt | $5/copy |

Graduate Student Reinstatement | $50 |

Late Add/Late Registration | $50 |

Late Payment Fees | $50; $125; $175 |

Late Placement Test or Guidance Test | $5 |

Meal Plans (per semester) | $610-$2,695 |

New Student Orientation (Fairbanks area)

| Fall | $115 |
| Spring | $35 |

Payment Plan | $65-$90 |

Records Duplication | $0.25/page |

Reinstatement Fee | $100 |

Residence Life Programming Fee | $25 |

Returned Check Fee | $30 |

Textbooks (approximate) | $250-$1,100/semester |

Transcripts

| Electronic, $12; paper, $15 | $12-$15 |
| Expedited paper | $30 |
| Unofficial | $5 |

UAF SOM and CEM Tuition Surcharge | 20 percent of tuition ($47-$103/credit) |

¹ Plus one-time application fee of $40 and a refundable $315 damage deposit
² Plus one-time application fee of $75 and a refundable $600 damage deposit

Note: All fees are subject to change

APPLICATION FOR ADMISSION

Cost: $40-$75 (add $25 if late)

Who pays: Applicants to certificate and associate degree programs are charged $40; applicants to baccalaureate programs $50; applicants to graduate programs, $75. There is a $25 late fee charged for all baccalaureate and graduate program applications submitted after the published deadlines.

What's covered: Assessment and processing of prospective student applications

APPLICATION FOR GRADUATION

Cost: $50 ($80 if late)

Who pays: Students planning to graduate in a given semester must apply for graduation. Early applications are encouraged and can be submitted the semester before expected graduation. Application deadlines are Oct. 15 for fall, Feb. 15 for spring and July 15 for summer graduation.

What's covered: Credit check, degree requirement audit and certification of eligibility to graduate

CAMPUS HOUSING

For complete rate information, please go to the Residence Life website (https://uaf.edu/reslife/rates/).

Fairbanks campus single-student housing

Cost: $355 due at time of application ($40 nonrefundable application fee, $315 refundable damage deposit)

Fairbanks campus employees, family and graduate housing

Cost: $75 nonrefundable processing fee

- $600 deposit ($300 due when you are assigned a housing unit; $300 due at check-in)
- Shared, efficiency, one, two, and three-bedroom apartments: $923–$1,683 per month
  - Limited number of garages available with Stuart Hall one-bedroom apartments: $100 per month
- One, two, and three bedroom homes with garage: $1,377–$1,785 per month
- A $25 programming fee will be applied to your January and September rent

Residence Life Programming Fee

Cost: $25 per semester

Who pays: Residential students and employees

What's covered: Fee revenues will be used to modernize the student experience by better serving university residents by providing sustainable funding for community councils and Residence Hall Association

How to apply: Send your completed application and application fee to the UAF Department of Residence Life. Applications are available online (https://www.uaf.edu/reslife/apply/). Room rent and meal plan fees, along with all other fees, are due in full by fee payment end. Information about Residence Life is available at 907-474-7247, uaf-housing@alaska.edu or on the Residence Life website (https://www.uaf.edu/reslife/).

Kuskokwim Campus Housing

For information about campus housing at the Kuskokwim Campus in Bethel, visit the Kuskokwim Campus website (http://www.bethel.uaf.edu) or call 907-543-4562.

CAMPUS MAIL BOX

Cost: $75 per box per semester, $30 summer only. Limited numbers of larger boxes are available for an additional cost.

Who pays: Students who wish to receive U.S. Postal Service mail on campus must rent a campus mail box at the Campus Mail Center in Constitution Hall. USPS mail is delivered on campus to post office
boxes only, not to street addresses. The fee can be paid at UAOnline or at the Bursar’s Office in Signers’ Hall. Fees renew automatically each semester until the rental agreement is canceled and keys are returned.

What’s covered: Mail box space, postal and mail forwarding services

CREDIT BY EXAMINATION

Cost: $40 per credit hour

Who pays: Students using the credit-by-exam option for earning UAF course credit

What’s covered: The fee pays for coordinating the exam or other evaluation requirements between student and professor, grade recording and transcription.

CREDIT CARD TRANSACTION FEE

Cost: 2.85 percent ($3 minimum)

Who pays: Anyone making credit or debit card payments via UAOnline. Note: credit and debit card payments are not accepted in person, by mail or over the phone.

What’s covered: Fees charged by credit card companies. Note: The university does not receive any of this fee.

CREDIT FOR PRIOR LEARNING

Cost: $50 fee payment plus $10/credit hour for credits earned

Who pays: Students using the credit-for-prior-learning option to earn UAF course credits

What’s covered: The fee pays for the portfolio or license/certificate review by faculty evaluation committee. If credit is awarded, the fee per credit hour earned pays for grade recording and transcription.

GRADUATE STUDENT REINSTATEMENT

Cost: $50

Who pays: Graduate students who do not meet registration requirements and fail to file an approved leave of absence may request reinstatement from the dean of the Graduate School and will be charged $50.

What’s covered: Reinstatement processing

LATE ADD/LATE REGISTRATION

Cost: $50

Who pays: Students given permission to add a class after the last day to pay tuition and fees will be charged a late registration fee of $50 that must be paid within five business days. This includes drop/add (swap) courses. No late fee will be charged when:

• you add a course to replace a canceled course in which you were previously enrolled, or
• you are moved to a lower or higher level of a course (e.g., MATH F151X to MATH F105) due to instructor’s recommendation.

This fee is refundable only if all classes for which you have registered are canceled. See the Registration Guide (http://www.uaf.edu/register/) for the procedure for adding a class.

What’s covered: Processing of late payments

LATE PAYMENT FEES

Cost: $125 for first; $175 for second; $50 per month for late payment plan payments

Who pays: All students who have missed the fee payment deadline and have a balance of $300 or more. An additional $175 fee will be added to accounts not paid by the withdrawal deadline.

What’s covered: Processing of late payments

LATE PLACEMENT TEST OR GUIDANCE TEST

Cost: $5

Who pays: Students who take a placement or guidance test outside of scheduled testing sessions

What’s covered: Test oversight, administration and recording

MEAL PLANS

Cost: $610-$2,695

Who pays: All students living in residence halls and Cutler Apartments are required to purchase a meal plan, with the exception of graduate students. UAF also offers meal plans to commuter students, including residents of family housing and students living off campus. Students who do not live on campus but are interested in purchasing a meal plan can contact Dining Services at 907-474-6661 or uaf-dining@alaska.edu. Please review your dining contract for more details. All prices are per semester.

What’s covered (per semester): See Dining Services (p. 76) page for details of specific meal plans and how to purchase plans.

Note: The Wood Center food court is closed for campus holidays. Dining locations are limited during UAF winter and spring breaks.

NEW STUDENT ORIENTATION

Cost: $115 for fall semester, covers all programs except special Outdoor Adventures activities; $10 for one-day fall transfer student orientation, and $25 (plus $10 for each additional guest) for two-day fall family orientation. $35 for spring orientation.

Who pays: Any new student may participate in New Student Orientation on the Fairbanks campus. NSO is required for all first-time bachelor’s degree students (regardless of the number of earned college credits) and international students (undergraduate F-1 and international exchange J-1 status). Domestic transfer students are also encouraged to attend.

What’s covered: All materials, sessions, general entertainment and meals not included in student meal plans
PAYMENT PLAN
Cost: $65-$90 depending on when you sign up. Discount only applies to online enrollment via UAOnline.

Who pays: Students unable to pay all tuition and fees at the beginning of a semester

What's covered: Budgeting by distributing the costs of tuition and fees across two or more payment dates. See the Bursar's Office website (http://www.uaf.edu/bursar/) for more information.

PLACEMENT TEST FEE
Cost: $25

Who pays: Undergraduate students taking the ALEKS PPL mathematics placement assessment

What's covered: Mathematics course placement assessment and six-week prep and learning module to place, practice, improve and enroll. Up to four retests may be taken.

RECORDS DUPLICATION
Cost: $0.25 per page

Who pays: Anyone who requests copies of their own academic records

What's covered: Copies of records in your academic file in the Office of the Registrar (except transcripts from another school). Students need to submit a written request for copies. The Office of the Registrar provides document copies as time permits. All copies provided through this service are stamped "unofficial."

REINSTATEMENT FEE
Cost: $100

Who pays: Students dropped from classes due to nonpayment will be charged $100 to have classes reinstated

What's covered: Reinstatement processing

RETURNED CHECK FEE
Cost: $30

Who pays: If a check is returned for any reason, a hold will be placed on the student's account which will prevent the student from registering, viewing grades, participating in graduation activities and receiving transcripts until the check clears and a $30 fee is paid.

What's covered: Processing returned checks

TEXTBOOKS
Cost: Varies according to course load. You can expect to pay about $250-$1,100 per semester for textbooks. The cost for books averages about $90-$115 per course.

Who pays: Students in classes with required texts

What's covered: Texts, assigned readings or other course materials assigned by instructors

TRANSCRIPTS
Cost: $12-$30

Electronic = $12
Paper = $15
Expedited paper = $30

Who pays: Anyone who requests their own transcripts from the Office of the Registrar

What's covered:
- Official transcripts can be issued electronically (secure PDF delivery to an email address) or on special transcript paper in a sealed envelope sent by U.S. mail. Official transcript requests are handled by Parchment (accessible via UAOnline) and by the Office of the Registrar. Electronic transcripts can be delivered within minutes of the request as long as there are no holds on the student account. Processing time for paper transcripts is normally three to five business days. Transcript requests are processed as they are received and cannot be held for grades or degrees.
- Unofficial transcripts are accessible via UAOnline.

UAF SOM AND CEM TUITION SURCHARGE
Cost: 20 percent of tuition ($47-$103/credit)

Who pays: Students enrolled in upper-level and graduate courses in School of Management departments, and students enrolled in lower-level, upper-level and graduate courses in College of Engineering and Mines departments. Please note: tuition waivers do not cover tuition surcharges.

Paying Tuition and Fees
Students are not considered registered for any classes until all tuition and fees are paid or other payment arrangements have been made by the fee payment deadline. Please note that the payment due dates may vary if you are taking classes from multiple campuses. This includes room rent, meal plan costs, student activity fees, health fees and deposits. Any charges unpaid at the end of the previous semester are also due and must be paid before you can re-enroll. If you owe money to the university and submit an enrollment form and payment for the current semester, you will not be enrolled in your classes; instead, the payment will be applied toward your outstanding balance.

Other than tuition and fees, which are due according to every semester's payment schedule, any charges owed to the university are due within 30 days.

A $30 charge and a hold will be placed on your account if your check is returned. This will prevent you from registering, viewing grades, receiving transcripts and graduation activity.

CONSEQUENCES OF NOT PAYING
Failure to pay in full or make other payment arrangements by the fee payment deadline may result in cancellation of your class schedule. UAF may withhold transcripts, grades and other services, and cancel meal plans and housing if you do not pay your financial obligations. If the university takes such action, you will still be responsible for your account balance in full.
Registration may be withheld from any student who is delinquent in paying any amount due to the university. The registration process is not complete until the student has paid all fees and charges due. UAF may drop you from your courses after the fee payment deadline if you owe a balance to the university. A $100 reinstatement fee will be charged to re-enroll in any dropped courses.

FAILURE TO MEET FINANCIAL OBLIGATIONS

University policy requires a financial hold be placed on your student account if you fail to meet your financial obligations. The hold will prevent any registration, transcript or graduation activity.

Past due accounts will be sent to a collection agency. Interest, late fees and/or collection costs will be added to your account. Past due balances may be reported to a local credit bureau. The university is authorized to garnish Alaska Permanent Fund Dividends for payment of past due accounts.

TUITION WAIVERS

Note: Tuition waivers do not cover tuition surcharges.

• Senior Citizen Tuition Waiver
  UA Board of Regents policy waives regular tuition for Alaska residents at the age of eligibility for full Social Security retirement benefits. You are eligible to use the senior citizen tuition waiver and enroll in UAF courses if:
  • you are a permanent resident of Alaska;
  • you are age-eligible to receive full Social Security retirement benefits; and
  • there is space (i.e., no waitlist) in the class or classes you want.

If you are using a senior tuition waiver, you may not register until the first day of instruction of the semester. You must meet both age and residency requirements by one of the following dates to be eligible for the corresponding semester: Sept. 1 for fall; Jan. 1 for spring; May 1 for summer. Reimbursements will not be made to senior citizens who pay for a course and then request a waiver.

• Employee Tuition Waiver
  Employee tuition waivers pay only for tuition. Tuition waiver forms must be turned in by the fee payment deadline. The employee is responsible for all other fees. Employees who pay for a course and later become eligible for a waiver will not be reimbursed. Late fees and payment deadlines apply. More information is available at the Bursar’s Office website (http://www.ufaf.edu/bursar/).

Refunds

TUITION AND FEES

Students who withdraw from courses or cancel enrollment must submit a completed official withdrawal form to the Office of the Registrar. UAF may fully or partially refund undergraduate, graduate and nonresident tuition and fees. The following conditions apply:

1. If UAF cancels a course, students’ tuition and fees will be refunded in full.
2. If a student formally withdraws from a course, UAF will make refunds according to the date of the withdrawal.
   a. Students have until the third Friday of the semester to drop classes and receive a 100 percent refund. The parking decal fee will be refunded in full if the student returns the parking decal at the time of withdrawal.
   b. If a student withdraws from a class and adds another on the same day through the third Friday of the semester, UAF will exchange tuition.
   NOTE: If the exchange is uneven — e.g., lower level to upper level, or 3 credits to 4 credits — tuition and any fees owed are due the same day.
   c. If withdrawal is after the third Friday of the semester, no refund or exchange of tuition is available.

• Courses Meeting Four Weeks or More But Less Than a Semester
  a. If a student withdraws within five business days of the first class meeting, UAF will refund 100 percent of tuition and fees.
  b. If a student withdraws on or after the sixth business day after the first class meeting, no refund or exchange of tuition is available.

• Courses Meeting Less Than Four Weeks
  If a student withdraws before the first day of class, UAF will refund 100 percent of tuition and fees. No refund or exchange of tuition is available to students who withdraw on or after the first day of class.

REFUND PROCESSING

Financial aid will be disbursed to student accounts 10 days before the first day of class, and the Bursar's Office will begin processing refunds at that time. Contact the Bursar's Office for an advance if you need your funds for books and supplies. Refund processing is automatic for students who officially drop courses by the published refund deadlines. Remember to return parking permits if you drop during the 100 percent refund time.

All refunds are processed electronically or by mail. The Bursar's Office does not issue refund checks for amounts less than $10. It is your responsibility to check your account and contact the Bursar's Office to receive your refund as cash or to apply it to your PolarExpress card as a nonrefundable payment.

If you paid tuition and fees by credit card only, the card will be credited up to the amount charged.

If your tuition was paid through external sources such as financial aid, federal loans, scholarships or grants, you will receive your refund as cash or to apply it to your PolarExpress card as a nonrefundable payment.

Your refund is subject to federal regulations. If you receive a refund due to dropped classes or a total withdrawal, you may no longer qualify to receive scholarships or financial aid. In that case, the funds may be returned to the lender or grantor pursuant to all applicable rules and regulations.

If you paid by cash or check, a refund check will be sent to your mailing address of record or direct deposited in your bank account. If you notify the Bursar’s Office that you have not received the check due to an incorrect address, a fee of $18.50 will be charged for all checks reissued due to a stop-pay request by the student. Please be sure we have your current mailing address.

If you paid your tuition and fees by check, refund processing will begin after your check has cleared the bank.

Any balance owed to the university will be deducted from your refund.
Students who drop during the 100 percent refund period and want to maintain health insurance coverage should contact the Student Health and Counseling Center at 907-474-7043.

DIRECT DEPOSIT OF REFUNDS
Enrolling in direct deposit allows your refunds to be electronically deposited into your bank account. It’s simple, safe and convenient. Enrollment is available through our secure self-service website. Sign up for direct deposit of your refund through UAOnline (http://uonline.alaska.edu) by following these steps:

- At the “Student Services & Accounting Information” menu select the “Direct Deposit Enrollment” link.
- Select “1st time setup of direct deposit”
- Select the account type
- Enter the bank routing code
- Enter account number
- Re-enter account number
- Select “Submit”

EXCEPTION TO POLICY: APPEAL FOR REFUND OF TUITION
Appeals for refund of tuition are exceptions to policy and are only approved in events that are unanticipated and unavoidable. Approval is not automatic, and you need to provide documented evidence to support your request (physician’s note, letters of support from instructors, etc.). Acceptable unanticipated and unavoidable reasons may include:

1. death in immediate family;
2. serious illness or injury of student or immediate family member; and
3. factors outside of the student’s control (e.g., fire, flood).

Work-related issues, personal hardships, changing your mind about college, poor academic performance, disciplinary withdrawal, not receiving expected financial assistance or failure to read UAF’s published documents are considered to be the result of personal choices and actions and will not be considered.

Appeals for refund of tuition must be submitted within 30 class days after the beginning of the next regular semester. Forms for an appeal for refund of tuition are available online (http://www.uaf.edu/bursar/forms/), through the Bursar’s Office in Signers’ Hall on the Fairbanks campus or at CTC. Once received, the appeal will be evaluated by a campuswide committee which will return a decision to the student. The decision of the committee is final, and a student who files a written appeal under these procedures shall be expected to abide by the final disposition of the review, as provided, and may not seek further appeal of the matter under any other procedure within the university. Submission of appeals and appropriate documentation after published deadlines will not be considered. Contact the Bursar’s Office for more information.

HOUSING
Students who move off campus or withdraw from the university will receive room refunds according to the schedule on their housing agreement.

Any refund of room charges will be based upon the housing agreement.

MEALS
Please refer to your meal plan agreement for specific information about meal plan refunds.

Where To Get More Information
Office of the Bursar
University of Alaska Fairbanks
130 Signers’ Hall
P.O. Box 757640
Fairbanks, AK 99775-7640
Email: uaf-bursar@alaska.edu
Telephone: 907-474-7384
Fax: 907-474-5898

Financial Aid
What Is Financial Aid
Most students will need financial aid to help pay for the cost of attending college. Financial aid in the form of scholarships, grants, loans and employment is available at UAF to eligible students who need assistance to attend school.

Financial aid can be used to help pay for tuition, fees, books, supplies and living expenses such as room and board.

The Financial Aid Office provides counseling and information to students and parents, and administers a comprehensive program of financial assistance. Specific information regarding financial aid programs at UAF is on the Financial Aid website (http://www.uaf.edu/financialaid/). The Financial Aid Office is in 107 Eielson. Contact Financial Aid at 907-474-7256, toll free at 888-474-7256 or at uaf-financialaid@alaska.edu.

Who Receives Financial Aid
To receive financial aid you must:

1. Be admitted to a financial aid-eligible certificate or degree program at UAF;
2. Be a U.S. citizen or eligible noncitizen (F-1 and J-1 students are not eligible for state or federal financial aid, but may apply for University of Alaska Foundation or UAF privately funded scholarships, and graduate fellowships or assistantships);
3. Be registered with Selective Service if you are a male 18 or more years old;
4. Have a valid social security number;
5. Be making satisfactory academic progress as defined by the Financial Aid Office policy (policies and forms are available online (http://www.uaf.edu/financialaid/));
6. Not be in default on any federal education loan and not owe a refund because of overpayment of a previous federal grant or loan at any college or university;
7. Have earned a high school diploma, GED or equivalent.

How to Apply for Financial Aid
The forms to apply for federal, state and UAF financial aid programs are available at the Financial Aid Office or Financial Aid website (http://www.uaf.edu/financialaid/).
All students must complete the Free Application for Federal Student Aid to be considered for grants, scholarships, tuition waivers, loans and work study.

FAFSA forms may be completed at the FAFSA website (http://www.fafsa.ed.gov/). The earliest date students may begin completing the form is Oct. 1.

The priority application deadline for UAF is Feb. 15. If you miss the deadline, you may still apply for financial aid, but you might not be eligible for institutional scholarships or some state/federal grants.

Costs of Attending UAF

The information in the Estimated UAF Living Expenses (p. 69) table for a typical full-time undergraduate student for the school year will help you estimate the total cost of attending UAF.

### ESTIMATED UAF LIVING EXPENSES

<table>
<thead>
<tr>
<th></th>
<th>Single student living alone off campus</th>
<th>Single student living in UAF residence hall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition and fees</td>
<td>$8,970</td>
<td>$8,970</td>
</tr>
<tr>
<td>Books, supplies</td>
<td>$2,000</td>
<td>$2,000</td>
</tr>
<tr>
<td>Room and board</td>
<td>$12,050</td>
<td>$10,540</td>
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<tr>
<td>Transportation</td>
<td>$2,000</td>
<td>$400</td>
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<tr>
<td>Misc./personal</td>
<td>$2,250</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$27,270</strong></td>
<td><strong>$24,160</strong></td>
</tr>
</tbody>
</table>

1. Estimate includes Alaska resident tuition costs for freshmen/sophomores. Includes consolidated, UA facilities and UA network fees. Does not include specific course fees, health insurance, books, supplies, parking, travel, miscellaneous expenses or special costs associated with international or exchange students. Add $17,670 for nonresident tuition. Costs are subject to change.

2. Double room and meal plan

Standard budgets do not always fit everyone. Financial Aid staff will try to provide methods of covering unusual expenses such as medical bills, special child care or emergency items. Since eligibility is based on prior income, you may request a review of your eligibility if your income changes from loss of job, divorce, death or disability.

How Eligibility Is Determined

After the FAFSA is filed, the Financial Aid Office receives a student aid report from the U.S. Department of Education. The information on this form is used to determine a student’s eligibility for financial aid at UAF.

Once the office has received this report, students will receive an email either requesting more information (such as copies of income tax forms, proof of citizenship, etc.) or an award notice detailing your eligibility for financial aid. This information is also available via UAOnline (http://uaonline.alaska.edu). Students should respond to requests for more information promptly to avoid delays.

The total amount of financial aid awarded will be based on the FAFSA results and the student’s cost of attendance.

Scholarships, Grants and Tuition Waivers

Grants are usually based on financial need, whereas scholarship awards are based on academic achievement as well as financial need. These types of aid do not have to be repaid. Most grants and scholarships are designed for undergraduate students.

- **Nanook Pledge Scholarship**
  The Nanook Pledge is a four-year merit scholarship for incoming first-year, transfer and readmitted students at UAF. Awards range from $1,000 to $10,000 per year and are based on high school GPA, test scores, tuition rate and transfer GPA. Students must be admitted to a UAF baccalaureate program, attending full-time, and enrolled in at least one face-to-face class to be eligible for the Nanook Pledge Scholarship. The Nanook Pledge is available for up to four years for continuous enrollment at UAF.

- **University of Alaska Scholars Program**
  UA Scholars are exceptional graduates of Alaska high schools who are offered a unique opportunity to attend the University of Alaska with an $12,000 scholarship paid over eight semesters at $1,500/semester. The UA Scholars Program encourages Alaska’s high school graduates to pursue their advanced education in the 49th state. Alaska high schools designate the top 10 percent of the junior class at the end of their junior year for the UA Scholars Award. UA Scholars may use their awards at any of the UA system campuses. The award may also be applied to costs of qualified student exchange programs. Contact the UA Scholars coordinator at the Office of Admissions at 907-474-7500 or 800-478-1823.

- **Alaska Performance Scholarship**
  The Alaska Performance Scholarship is available to Alaska residents who graduated from an Alaska high school (public, private or home school) in 2011 or later. Students must complete high school, achieve a high school GPA of at least 2.5, earn a minimum score on a college or career readiness test, enroll at least half time, remain in good standing, and have qualifying education costs remaining after using all other nonloan aid. Students can receive up to eight semesters of award with three maximum annual award levels of up to $2,378, $3,566 and $4,755. To qualify, students must complete the FAFSA as soon as possible. For more information visit the Alaska Performance Scholarship website (http://acpe.alaska.gov/FINANCIAL_AID/Grants_Scholarships/Alaska_Performance_Scholarship/) or call 800-441-2962.

- **UAF Privately Funded Scholarships**
  Several hundred privately funded scholarships are available to all prospective and current students in a variety of academic majors. You may apply online (http://alaska.academicworks.com). New and prospective students must also apply for admission to UAF to be considered for scholarships. For more information contact the Office of Financial Aid at 907-474-5372 or 888-474-7256.

- **University of Alaska Foundation Scholarships**
  Scholarships are available for students attending any campus in the UA system. Applications are submitted online (http://alaska.academicworks.com). The deadline is Feb. 15. For information telephone 907-474-7687 or visit the University of Alaska Foundation website (http://www.alaska.edu/foundation/).

- **Army ROTC Scholarships**
  The U.S. Army awards four-year scholarships to high school students based on nationwide competitions. Students may use these scholarships to attend the university of their choice, provided that university is also host to an Army ROTC program. The UAF Army ROTC program supports campus-based competition for two-, three- and four-year scholarships for qualified UAF students. These scholarships may be used for undergraduate or graduate programs. Army ROTC scholarships pay UAF tuition and mandatory fees, $900 annually for books and supplies, and a monthly stipend for living accommodations.
expenses ranging from $300-$500 depending on the length of the scholarship. For more information about the Army scholarship program, eligibility requirements and the application process, contact the Department of Military Science at 907-474-6852 or email uaf-army-rotc-dept@alaska.edu.

- Bureau of Indian Affairs and Native Corporation Scholarships
  The federal Bureau of Indian Affairs offers grants to undergraduate full-time students. Applicants must be at least one-quarter American Indian or Alaska Native. These grants supplement other financial aid and are based on financial need. Grants range from $50-$3,000 or more each year. The average grant at UAF is $1,600. More information on BIA grants can be obtained from the BIA Regional Office, 1675 C Street, Anchorage, AK, 99501-5198, or by telephone at 907-271-4115. Some regional and village corporations provide scholarships to shareholders. Contact your local corporation for details on eligibility and application procedures.

- University of Alaska Grant
  This need-based tuition assistance grant is awarded to eligible students who have completed at least 24 credits toward an undergraduate degree. Applicants must complete the Free Application for Federal Student Aid by April 15 and be an Alaska resident, admitted to a degree program, enrolled in at least 6 credits and maintaining satisfactory academic progress. Award amounts vary and are capped at a maximum of $1,000.

- Pell Grant
  The federal Pell Grant is a need-based grant available to undergraduate students to help pay college costs. Since this grant is based on financial need, students must complete the Free Application for Federal Student Aid. A federal processor will send applicants a student aid report indicating whether they qualify. Federal Pell Grants are awarded annually from $500-$1,000 per academic year.

- Federal Supplemental Educational Opportunity Grant
  This grant is for exceptionally needy undergraduate students. Award amounts range from $500-$1,000 each year.

- Student Support Services
  Student Support Services offers scholarships to qualified program participants who have made use of the SSS academic support services and are on a limited income. To be eligible to participate, you must be a first generation college student (neither parent has a college degree), have a documented learning or physical disability, or qualify as a low-income student. Visit the Student Support Services website (http://www.uaf.edu/sss/) for more information.

- Alaska Education Grant
  The AlaskAdvantage need-based grant is awarded to Alaska residents attending Alaska institutions. Priority is given to students pursuing degrees in Alaska workforce priority programs (such as allied health, social and community services, or teaching) or who have an ACT score of 25 or higher or SAT score of 1180 or higher. Part-time awards range from $500-$1,000 per academic year. Full-time awards range from $1,000-$4,000 per academic year.

- Western Undergraduate Exchange Award
  UAF participates in the Western Undergraduate Exchange administered by the Western Interstate Commission for Higher Education. Only new undergraduate degree applicants claiming residency in Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington or Wyoming are considered for a WUE award that reduces nonresident tuition to 1.5 times the resident tuition rate. WUE award applicants must submit an application for admission and clearly mark their interest in WUE on the form. Admission is restricted to an approved list of degree programs. Priority deadline for reviewing WUE applications is Feb. 15. For more information contact the Office of Admissions at 800-478-1823, 907-474-7500, or through the Office of Admissions website (http://www.uaf.edu/admissions/).

  Note: Students attending any campus of the University of Alaska system under the Western Undergraduate Exchange program are assumed to be receiving the benefit of reduced tuition because of their residency in a partner state. Therefore, time spent in WUE does not count toward the time required to establish residency in Alaska for tuition purposes. If students end their participation in WUE, they could begin establishing residency for tuition purposes as set forth in the resident and nonresident tuition policy (p. 61).

Graduate Assistantships
You must be admitted to a graduate program to receive an assistantship. Research and teaching assistantships are awarded to qualified graduate students by each department or program. For application information, contact the department or program directly. For more information, see How to Earn a Graduate Degree (p. 290).

Fellowships are available through the University of Alaska Foundation, the Graduate School and private organizations. A limited number of these awards are granted each year, and the amounts vary. For information, contact the UA Foundation, 907-474-7687, or the Graduate School, 907-474-7464, or visit the Graduate School website (http://www.uaf.edu/gradsch/).

Loans
Loans represent a major source of assistance as you try to meet the full costs of your education. Educational loans generally have long-term repayment schedules and offer low interest rates. They often have provisions for deferring payments and may offer more benefits related to financial need.

Any student who borrows money for college should understand the specific conditions and requirements regarding disbursements, deferments and repayment options. Students who fail to meet the conditions of the satisfactory academic progress policy may be denied all federal aid.

UAF participates in the Federal Student Loan Program. The Federal Stafford Loan provides loans from the federal government. The program offers subsidized and unsubsidized loans. Subsidized loans are for students who have financial need; the government makes interest payments on the loan while the student is in school, in grace period or in deferment. Unsubsidized loans are those for which interest accrues while in school. A student may receive subsidized federal loans for up to 150 percent of his/her program’s published length. If a student exceeds this time frame, his/her loans will lose the interest subsidy and interest will begin to accrue on those loans. Loan repayment calculations are available at the program website (http://www.finaid.org).

Students must be enrolled in at least 6 credits to qualify for a state or federal loan. Yearly limits for dependent students are $5,500 for first-year students, $6,500 for second-year students and $7,500 for upper-level undergraduates. Independent students may borrow, including the subsidized federal loan, up to $9,500 as first-year students, $10,500 as second-year students and $12,500 as third- or fourth-year students. Graduate students may borrow $20,500. The interest rate varies annually and is capped at 8.25 percent.
The Federal Parent Loan for Undergraduate Students is a program for parents of dependent students. The cost of attending UAF determines the annual loan limits. A variable interest rate or finance charge, not to exceed 9 percent, is determined each year for the federal PLUS programs.

The Alaska Commission on Postsecondary Education offers both federal and state loan programs. These loans are available to all students attending UAF. Through its federal component, AlaskaAdvantage offers Stafford (subsidized and unsubsidized) and PLUS loans. State loans include the Alaska Supplemental Education Loan, the Family Education Loan and the Winn Brindle Scholarship Loan.

Students seeking an Alaska Supplemental Education Loan, or ASEL, must apply using the Free Application for Federal Student Aid and the ASEL Master Promissory Note.

The ASEL loan can be used as a supplement to any other aid, provided the total amount of aid does not exceed a student’s calculated cost of attendance. ASEL approval also requires a student to have good credit. Undergraduates may borrow up to $14,000 and graduate students up to $15,000, depending on enrollment. Repayment begins no later than six months after the borrower stops attending school at least half time. The interest rate is variable and is made public every July. Interest is charged from the day of disbursement.

The Alaska Family Education Loan Program allows the student’s family to share the cost of the student’s education. A family member can borrow up to $14,000 for an undergraduate and up to $15,000 for a graduate student. The interest rate is 5 percent, and the borrower begins repayment within 60 days of the final disbursement.

The Winn Brindle Scholarship loan can be used only for specific fields of study. For information, please contact the Alaska Commission on Postsecondary Education (http://www.state.ak.us/acpe/), 3030 Vintage Blvd., Juneau, AK 99801, 800-441-2962.

Applicants must apply each year. Applications are available for all Alaska loan programs via the ACPE website or through their offices. UAF receives ACPE loan disbursements via electronic funds transfer. Loans are processed within seven to 10 days from time of receipt at ACPE offices in Juneau or Anchorage and can be disbursed to a student’s UAF account within two days of receipt by the Financial Aid Office.

Advance of funding (previously known as a textbook loan) may be available to students with enough certified financial aid available to cover all semester expenses and the requested advance of funding. Financial aid must be verified and guaranteed before an advance will be issued. In order to obtain an advance of funding, applicants must provide a textbook list, verified financial aid and a completed and signed advance of funding form. A $10 service charge is assessed and due when the advance of funding form is submitted. Applications and more information are available at the UAF Bursar’s Office.

**Student Employment**

Campus jobs help many UAF students pay college costs. Many student positions are available across UAF campuses, as well as the University of Alaska statewide system offices in Fairbanks. More than 1,000 students are employed in these jobs. Full-time student status is not required unless specified by a department. However, students who are less than full time are subject to FICA withholding, and departments that hire part-time student employees are subject to the applicable benefit rate charge.

Student employees may work up to 20 hours each week while classes are in session and up to 40 hours when classes are not in session. Pay rates are based on the job classification. The average pay varies from $300-$500 each month. Since there is no “pool” for workers, students apply directly to the departments with position vacancies. Job announcements and information on how to apply for positions are available from Career Services, 302i Eielson, 907-474-7596, or from Human Resources, Administrative Services Center, 907-474-7700, or at the Careers at UA website (https://alaska.edu/jobs/).

The Federal Work Study program provides jobs for graduate and undergraduate students with financial need. Job placement and working conditions are similar to regular student employment. To qualify for FWS, students must be eligible for federal financial aid as determined based on information provided on the required FAFSA form.

**Veteran Services**

The UAF Department of Military and Veteran Services monitors the educational progress and status of veterans who attend UAF using VA educational benefits. They also help veterans, service members and eligible dependents with the paperwork needed to begin and continue certification under the various GI Bill benefits. If you qualify and wish to use your benefits, you must be fully admitted to UAF and in a state-approved degree or certificate program. A complete list of benefit programs is available at the DMVS website (http://www.uaf.edu/veterans/va-educational-benefits/). If you are unsure whether you are entitled to GI Bill benefits, contact the Department of Veterans Affairs in Muskogee, Oklahoma, at 888-442-4551 (888 GI BILL 1) or through the Department of Veterans Affairs website (http://www.gibill.va.gov). Specific questions regarding vocational rehabilitation should be directed to the Fairbanks Vet Center, 540 Fourth Ave., Suite 100, Fairbanks, AK 99701, or call 907-456-4238.

Because the Department of Veterans Affairs processes benefit payments as a reimbursement, you should initiate your VA paperwork 60-90 days before your classes start. You can apply for veteran benefits online (https://vabenefits.vba.va.gov/vonapp/main.asp). You can request certification for your UAF VA educational benefits at the DMVS website (http://www.uaf.edu/veterans/forms/), or visit our office at 107 Eielson, call 907-474-7400 or email uaf-vet@alaska.edu.

*GI Bill® is a registered trademark of the U.S. Department of Veterans Affairs (VA).*

**Remaining Eligible for Aid**

Students receiving financial aid are required to maintain satisfactory academic progress. Undergraduate students must satisfactorily complete a minimum of 67 percent of total credits attempted each year and have a cumulative grade point average of 2.00 (3.00 for graduate students).

Students may appeal the suspension of aid. Appeals must be in writing and must state the reasons for failure to maintain satisfactory standards of progress, as well as the steps the student will take to meet those standards in the future. Appeals should be directed to the Financial Aid Office, which will determine if the requirements for satisfactory academic progress will be waived. Academic progress requirements are subject to changes in federal or state law and institutional policy. A complete description is available at the Financial Aid Office (http://www.uaf.edu/finaid/).
Payment to the Student
Disbursement of financial aid is usually in equal amounts. Students are given half the total award at the beginning of each semester. Tuition, fees and all other amounts due to UAF at the time financial aid is released to the student must be paid before the balance of aid is released to the student.

All financial aid checks as well as checks from outside organizations (such as Native corporations, clubs, etc.) are initially credited to the student’s account to pay for any debt owed to the university. Any balance remaining is refunded to the student in accordance with the university’s refund policy. Students who receive federal financial aid and totally withdraw from classes during a semester may have to pay back a portion of the federal financial aid received for that semester. The amount to be repaid is based on the number of class days attended before withdrawal compared to the total days in the semester and amount of federal aid received. If the withdrawing student is entitled to a refund of tuition and fee charges, all or part of the refund may be returned to the federal financial aid programs. The amount of a refund, repayment or return of federal financial aid is based on U.S. Department of Education regulations concerning return of federal financial aid. Any refund or repayment calculation exceeding the amount of refund determined by university policy will be charged to the student. Financial aid recipients are strongly encouraged to confirm the amount of any personal liability before processing a total withdrawal from classes.

Important Financial Aid Dates

1. **Oct 1**
   Apply for federal aid with the Free Application for Federal Financial Aid. It is best to apply well before the time you will need the financial aid.

2. **February**
   Apply for admission to UAF. Financial aid cannot be processed for students who have not been admitted to a UAF degree or certificate program.

3. **Feb. 15**
   UAF scholarship application due. This application includes three short essays which may be revised at any time, so applicants should start early. Apply online (http://alaska.academicworks.com).

4. **May to July**
   Federal student loan borrowers should complete federal loan promissory note and entrance counseling online (http://www.studentloans.gov). Processing time is approximately one week. If sent to UAF in time, loans will be disbursed 10 days before the first day of class each semester.

5. **June 1 for fall; Oct. 15 for spring**
   Deadline for admission to graduate programs, with all supporting documentation, transcripts and test scores.

6. **June 15**
   Deadline for undergraduate admission to UAF for the fall semester. This is an absolute MUST. UAF cannot process financial aid for students who have not been admitted.

Rights and Responsibilities of Accepting Financial Aid
As a financial aid recipient at UAF, you have the right to:

1. Know what financial programs are available to you.
2. Know how to apply, how eligibility is determined and what terms and conditions are related to your aid.
3. Know how the university determines whether you are making satisfactory academic progress toward your degree and what happens if you are not making such progress.
4. Request an explanation of your financial aid package, including what portion is gift and what portion must be repaid and the terms of repayment.
5. Know the costs of attending UAF and the refund policy for students who withdraw.

For continued receipt of financial aid you must:

1. Complete and file all financial aid forms accurately and on time.
2. Read and understand all documents you sign. You should also keep copies for your records.
3. Know the limits and conditions of financial aid programs.
4. Notify the Financial Aid Office of any change of address, name, marital status, attendance status or receipt of additional financial awards.

Where to Get More Information

Office of Financial Aid
University of Alaska Fairbanks
107 Eielson Building
P.O. Box 756360
Fairbanks, AK 99775-6360
Email: uaf-financialaid@alaska.edu
Telephone: 907-474-7256
Toll free: 888-474-7256
HOUSING AND DINING

Housing

Single-Student Housing

Your educational experience at UAF will be one of the great adventures of your life. The Department of Residence Life can be a vital part of that adventure through programs that give you a comfortable, energetic environment in which to live and learn. The community fosters close friendships and academic achievement, helps you develop individual leadership ability and provides opportunities for personal growth.

Some of UAF’s residence halls have a wonderful view of the Alaska Range and Denali, the tallest peak in North America.

Residence Life offers living environments to meet every need. Options include coed buildings by floor or by room, small community atmospheres for rural Alaskans, apartment-style options, double, single and super-single rooms, alcohol-free environments, gender-inclusive housing options, and first-year experience halls. All single-student residential units are pet and smoke free. Service and assistance animals are permitted in all of our facilities.

Residence hall students have the conveniences of home within walking distance to class. Benefits include:

• wireless and high-speed connections
• laundry facilities
• gender-inclusive housing
• living-learning communities
• trained staff on call 24 hours
• more than 400 programs each year

ELIGIBILITY

All students are eligible for campus housing, but students are not guaranteed housing until approved by the Department of Residence Life.

To better manage occupancy, Residence Life requires that students be registered for a minimum of 1 class credit hours (in-person, online or distance education class) to live in campus housing.

APPLICATION PROCESS

You must have access to UAOnline to apply for campus housing. All housing applications and forms can be found in your housing portal. We have a two-part housing application process. Please complete the Housing Eligibility Form first, then you will be given access to the housing application(s) that fits your housing needs. More information can be found here (https://uaf.edu/reslife/apply/). Applicants must send $355 ($315 deposit, $40 nonrefundable application fee) with the signed housing application. Upon acceptance, Residence Life will send a written confirmation and receipt to the student.

COSTS

On-campus costs are comparable to off-campus living costs. When amenities such as wireless and computer connections, transportation and laundry facilities are added in, the on-campus costs are even more favorable. Residential fees (room and board) are due in full at fee payment along with all other fees. All students living in a residence hall are required to purchase a meal plan, with the exception of graduate students. Please see the Dining Services section (p. 76) for more information regarding meal plans.

Residence hall and board plan fees are listed below. All room and board costs are subject to change. Students whose housing applications have been accepted will be able to withdraw (minus the application fee) if rates increase after they apply. Contact Residence Life about residence hall fees. Questions about the meal plan should be directed to Dining Services at 907-474-6661 or uaf-dining@alaska.edu.

<table>
<thead>
<tr>
<th>Fairbanks Campus Single-Student Housing</th>
<th>(per semester)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Double rooms</td>
<td>$2,550-$2,754</td>
</tr>
<tr>
<td>Single rooms¹</td>
<td>$3,060-$3,264</td>
</tr>
<tr>
<td>Super single rooms¹</td>
<td>$3,570-$3,774</td>
</tr>
<tr>
<td>Cutler Apartment Complex</td>
<td>$3,060-$4,233²</td>
</tr>
</tbody>
</table>

¹ Extremely limited availability
² Includes winter break
* All rooms will be changed a per-semester nonrefundable $25 programming fee. This fee supports the administration, events and activities scheduled in the campus communities throughout the program.

CONSEQUENCES OF CANCELING A HOUSING CONTRACT

After July 31, students who have submitted a housing application are expected to live on campus and pay appropriate housing fees for their reserved space. Students who do not occupy their reserved space by the first day of classes or who cancel their reserved space after July 31 will forfeit their deposit. Dining plans also carry cancellation consequences. Direct questions about meal plans to Dining Services at 907-474-6661 or uaf-dining@alaska.edu.

On-campus housing applications are for the academic year. Students living on campus for the fall semester are obligated to live on campus for the remainder of the academic year, so long as they are UAF students. Exceptions may be granted for the conditions listed under the “termination/forfeits” section of the agreement.

Room charges and refunds are processed according to the following schedule:

Housing and Dining Refund Schedules

FALL 2020

<table>
<thead>
<tr>
<th>Cancellation Date</th>
<th>Housing</th>
<th>Forfeit Deposit?</th>
<th>Dining</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before Aug. 1</td>
<td>100% refund</td>
<td>No</td>
<td>100% refund</td>
</tr>
<tr>
<td>Aug. 1-19</td>
<td>100% refund</td>
<td>Yes</td>
<td>100% refund</td>
</tr>
<tr>
<td>Aug. 20-Sept. 4</td>
<td>90% refund</td>
<td>Yes</td>
<td>100% or prorated refund based on actual usage</td>
</tr>
<tr>
<td>Sept. 5-18</td>
<td>75% refund</td>
<td>Yes</td>
<td>100% or prorated refund based on actual usage</td>
</tr>
<tr>
<td>Sept. 19-Oct. 2</td>
<td>50% refund</td>
<td>Yes</td>
<td>50% refund</td>
</tr>
<tr>
<td>Oct. 3-16</td>
<td>25% refund</td>
<td>Yes</td>
<td>No refund</td>
</tr>
<tr>
<td>After Oct. 16</td>
<td>No refund</td>
<td>Yes</td>
<td>No refund</td>
</tr>
</tbody>
</table>
**SPRING 2021**

<table>
<thead>
<tr>
<th>Cancellation Date</th>
<th>Housing</th>
<th>Forfeit Deposit?</th>
<th>Dining</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before Dec. 1</td>
<td>100% refund</td>
<td>No</td>
<td>100% refund</td>
</tr>
<tr>
<td>Dec. 1-Jan. 7</td>
<td>100% refund</td>
<td>Yes</td>
<td>100% refund</td>
</tr>
<tr>
<td>Jan. 8-22</td>
<td>90% refund</td>
<td>Yes</td>
<td>100% or prorated refund based on actual usage</td>
</tr>
<tr>
<td>Jan. 23-Feb. 5</td>
<td>75% refund</td>
<td>Yes</td>
<td>100% or prorated refund based on actual usage</td>
</tr>
<tr>
<td>Feb. 6-19</td>
<td>50% refund</td>
<td>Yes</td>
<td>50% refund</td>
</tr>
<tr>
<td>Feb. 20-March 5</td>
<td>25% refund</td>
<td>Yes</td>
<td>No refund</td>
</tr>
<tr>
<td>After March 5</td>
<td>No refund</td>
<td>Yes</td>
<td>No refund</td>
</tr>
</tbody>
</table>

Deposits will be carried forward to subsequent academic years for students with applications. Deposits can be forfeited for several reasons. Please refer to the back of the residence hall occupancy agreement for specific details.

**HALLS AND ROOMS**

Every residence hall has common areas — including recreation lounges, study lounges, small kitchens and laundry facilities — to foster academic and personal growth. Recreational lounges typically have televisions, couches, tables, chairs and pool tables or ping pong tables. Hall kitchens generally include a range/oven, refrigerator, microwave, sink, table and chairs. Kitchens are for preparing snacks and not designed to replace the university meal plan.

All student rooms have high-speed connections. Students must furnish their own twin-long linens, blankets, pillows and towels. Custodial service is provided for all common areas such as hallways, lounges and centrally located bathrooms.

**FIRST-YEAR LIVE-ON REQUIREMENT**

All incoming first-year undergraduate students are required to live on campus. The live-on requirement is a commitment between the undergraduate students and the University of Alaska Fairbanks to enhance students’ experience and success. Living on campus for at least the first year is a significant advantage as you will be part of a community and make connections to other students, faculty and staff. Living on campus also connects you to services that support you as you transition to college life at UAF. If you are a first-year undergraduate student enrolled in 9 credits or more, are under the age of 21 and are not planning to live locally with your parent(s)/legal guardian as specified below, you are required to live in a UAF residence hall for one academic year (fall/spring, excluding summer and winter breaks). If you are a UAF student receiving a scholarship specifically for room/board, you are required to live on campus as specified in the stipulations of the award or conditions of the program. Incoming spring transfer students who are still in their first matriculated year are required to live in a university residence hall and carry a traditional meal plan for the spring semester. All undergraduate international students in their first year of study in the United States are required to live on campus their first year. Requests for permission to reside off-campus for other reasons are considered on their own merit, taking into account individual circumstances.

The University of Alaska Fairbanks recognizes that exceptions to the live-on requirement may be appropriate in certain circumstances. Students can request an exemption to the live-on requirement online on their UAOnline account. Those seeking an exemption must meet one or more of the following criteria, subject to validation. Other exceptions not listed below will also be considered on a case-by-case basis:

1. Student is married, in a registered domestic partnership or civil union.
2. Student is a parent with custody of a child or children or caring for a dependent who is living with them.
3. Student is living with immediate family or legal guardian. Parent(s), sibling(s), or grandparent(s) are the only individuals that qualify as immediate family. Immediate family or legal guardian must also live within a 40-mile radius of campus.
4. Student has extenuating circumstances.
5. Credits are 100% eCampus.

More information about the first-year live-on requirement, including frequently asked questions, can be found here (https://uaf.edu/reslife/edge.php).

**EDGE PROGRAM**

The Education, Development, Growth and Experience program provides support and resources to help traditional first-time students achieve academic success. The EDGE program is for all first-time students under 21 years of age who live on campus. EDGE halls have live-in tutors and twice the number of resident advisors as other halls. Alcohol is prohibited in EDGE halls. Participants receive instruction in academic success skills, campus resources and other topics that foster success.

**LIVING LEARNING COMMUNITIES (LLC)**

We have multiple LLCs on campus:

- **Honors LLC** ([https://uaf.edu/reslife/community.php](https://uaf.edu/reslife/community.php)) — Available in Skarland Hall ([https://uaf.edu/reslife/hall/skarland.php](https://uaf.edu/reslife/hall/skarland.php)) — A community focused on fostering intellectual and academic goals between first-year engineering students at UAF. This high-impact living environment focuses on student success, with an intentional focus on connecting engineering students with key members of the community. The College of Engineering and Mines and Residence Life staff have partnered to create a community that is specialized to enhance the Honors College experience through your first year at UAF. This housing option will provide an environment conducive to the needs of students in the Honors College through additional staff support and community connections.

- **Engineering LLC** ([https://uaf.edu/reslife/community.php](https://uaf.edu/reslife/community.php)) — Available in Skarland Hall ([https://uaf.edu/reslife/hall/skarland.php](https://uaf.edu/reslife/hall/skarland.php)) — Membership in this community promotes the sharing of intellectual and academic goals between first-year engineering students at UAF. This high-impact living environment focuses on student success, with an intentional focus on connecting engineering students with key members of the community. The College of Engineering and Mines and Residence Life staff have partnered to create a floor where your classmates might just be your roommate.

- **Outdoor Adventures LLC** ([https://uaf.edu/reslife/community.php](https://uaf.edu/reslife/community.php)) — Available in Skarland Hall ([https://uaf.edu/reslife/hall/skarland.php](https://uaf.edu/reslife/hall/skarland.php)) — A community focused on fostering personal growth and the spirit of adventure through education, experience and accessibility to the wilderness, on campus and within the greater state of Alaska! The Department of Nanook Recreation and the Department of Residence Life have partnered to create a community that focuses on outdoor involvement.
and to help broaden students’ experiences by providing the skills, knowledge and equipment to step out into the world with confidence.

Gender Diversity LLC (https://uaf.edu/reslife/community.php) — Available in Bartlett Hall (https://uaf.edu/reslife/hall/bartlett.php) (sixth floor) and Moore Hall (https://uaf.edu/reslife/hall/moore.php) (sixth floor) — Members of this community share intellectual and social experiences focused on the understanding of and respect for lesbian, gay, bisexual, transgender, queer, questioning, intersex, asexual and allied identities, histories and practices. This welcoming and inclusive community focuses on the growth and development of the whole student, through intentional outreach, trainings and programmatic efforts aimed at strengthening the ties of our residents to the larger UAF community.

Impact LLC (https://uaf.edu/reslife/community.php) — Available in Skarland Hall (https://uaf.edu/reslife/hall/skarland.php) — The Nanook Diversity and Action Center and the Department of Residence Life have partnered to give students the opportunity to develop their civic engagement skills to achieve equity in their environment. Students in this community will attend programs and activities focused on advancing their knowledge in the area of social justice. Students will also have access to campus engagement and leadership opportunities.

UNDERGRADUATE STUDENT APARTMENTS

Currently, Cutler Apartments are the only facilities open to traditional undergraduate students. Each apartment has a kitchen, two bedrooms and one bathroom, and houses up to four students. Each apartment also has a small patio or deck, and most have shared storage space. There are two laundry facilities in the complex that are open 24 hours a day. Cutler Apartments are available to undergraduate and graduate students in single-student housing.

ROOM USE DURING VACATION PERIODS

All halls are open during Thanksgiving and spring break, but most are closed during the winter break, with the exception of Cutler Apartments. All students living on campus in the fall and spring are eligible to remain on campus over the winter break provided they apply to do so and pay the winter break fee. Space is limited and is available on a first-come, first-served basis. The winter break fee for Cutler Apartments is included in the fall semester rates. Food service may not be available during the winter and spring breaks. Summer housing is also available; assignments are made through Residence Life.

Employee, Family and Graduate Housing

UAF offers a variety of on-campus housing for student families. The university owns and maintains 180 furnished apartments on campus, ranging from one- to three-bedroom units. They are affordable, comfortable and conveniently located near the center of campus. All apartments are smoke-free.

ELIGIBILITY

Employees, graduate students and students with dependents or who are over the age of 26 are eligible for employee, family and graduate housing options at UAF. The main agreement holder must be registered for a minimum of 1 class credit hours (in-person, online or distance education class) or be a benefited employee to live in campus housing.

APPLICATION PROCESS

You must have access to UAOnline to apply for campus housing. All housing applications and forms can be found in your housing portal. We have a two-part housing application process. Please complete the Housing Eligibility Form first, then you will be given access to the housing application(s) that fits your housing needs. More information can be found here (https://uaf.edu/reslife/home/). You will receive further information within one week of submitting your housing application. For many of Residence Life EFG housing units, a waitlist is maintained according to the order the application was received. Submitting an application is not a guarantee of accommodations, but it gives Residence Life the information it requires to meet the applicant’s needs. All apartment preferences are honored on a first-come, first-served basis.

PET POLICY

Residents of employee, family and graduate housing may keep one pet in their unit. Certain types of pets are permitted, including fish, small caged animals, dogs and cats. Residents are limited to types of pets depending on the unit. Detailed information about pet policies can be found on the Residence Life website (https://uaf.edu/reslife/files/Animal_Policy.pdf). All pets must be registered with the Department of Residence Life. No other animals may be kept as pets in campus housing. Applying to keep a pet does not guarantee approval.

COSTS

Costs for individuals living on campus are comparable to the costs of living off campus. On-campus apartment rental rates include all utilities.

Deposits for EFG housing are $600. Upon acceptance of your assigned apartment, $300 of the deposit is due. The balance of your $600 deposit and your first month's rent is due when you check in. Your occupancy agreement is for either six or 12 months, but you may cancel the agreement for the spring semester without forfeiting your deposit if you graduate or are not enrolled at UAF. Housing Cancellation Forms must be submitted to Residence Life with a 30-day notice of intent to vacate and can be found in your housing portal. See the cancellation/termination section of your agreement for more detailed information.

FAIRBANKS CAMPUS EFG HOUSING

<table>
<thead>
<tr>
<th>(per month; 6-month or yearlong contract required)*</th>
</tr>
</thead>
</table>
| Efficiency, double-shared, one- to three-bedroom apartments | $821-$1,683  
| One- to three-bedroom home with garage | $1,377-$1,785  

* All units will be changed a per-semester nonrefundable $25 programming fee. This fee supports the administration, events and activities scheduled in the campus communities throughout the program.

EFG COMPLEXES

The Fairbanks campus maintains the following EFG complexes: Stuart Hall and Walsh Hall offer one-bedroom apartments (400 square feet); Hess Village offers one-bedroom (425 square feet), two-bedroom (720 square feet) and three-bedroom (900 square feet) apartments; while Garden Apartments (695 square feet) is a six-plex offering shared two-bedroom apartments. Harwood Hall offers efficiencies (380 square feet) and one-bedroom apartments (470 square feet). Chandalar Drive holds one-bedroom (600 square feet), two-bedroom (1,408 square feet) and three-bedroom (1,450 square feet) homes with garage. Tanana Drive has
one-bedroom (720 square feet) and two-bedroom (1400 square feet) homes with garage. Children are not allowed in Stuart, Walsh or Harwood Hall. All complexes are equipped with laundry facilities.

Campus apartments are fully furnished and include high-speed Wi-Fi internet connections and laundry facilities.

**Immunization Policy and Housing**

The University of Alaska strictly enforces immunization and test requirements for students living in high-density housing. To live in UAF housing, you are required to submit records showing that you have had the following:

- Two measles, mumps and rubella (MMR) immunizations (or proof of immunity)
- Tetanus immunization within the last 10 years (this can be either tetanus/diphtheria [TD], or tetanus, diphtheria and pertussis [Tdap])
- Negative tuberculosis (TB) test (often called a PPD test) within the first year of living in housing. If your TB test was positive, negative confirmatory testing or negative chest x-ray report is required

If you do not have access to these records, you can obtain these immunizations and TB testing at the Student Center for Health and Counseling or at a clinic or pharmacy in the community (https://www.uaf.edu/chc/resources/after-hours.php). If you get them done in the community, please upload your immunization records to the Patient Portal (https://uafchc.uaf.edu/login_directory.aspx), bring the documents to the Student Health and Counseling Center, or send them to:

**UAF Student Health and Counseling Center**
P. O. Box 755580
Fairbanks, AK 99775

Although the university urges all students to be immunized against communicable diseases, these requirements are specifically intended to help ensure the health of all resident students.

**MANDATORY IMMUNIZATIONS AND TESTS**

Your application for housing may be withheld for your second semester if you have not submitted these items. The university may require additional or expanded immunization and testing if the university community’s health and safety warrants it.

The university may grant exemptions from immunization requirements based on medical or religious reasons. The chancellor may also grant exemptions to people who will occupy student residence facilities for less than a semester. Those exempted from immunization or testing for a disease may be removed from student residence facilities should an outbreak of that disease occur or threaten to occur. Residence Life cannot authorize exceptions to this policy.

See Board of Regents’ Policy, Part IX–Student Affairs, Chapter XI–Student Health. For more information, contact the Student Health and Counseling Center (http://www.uaf.edu/chc/) at 907-474-7043 or uaf-shcc@alaska.edu.

**Where To Get More Information**

**Department of Residence Life**
University of Alaska Fairbanks
Main Floor, Moore-Bartlett-Skarland Complex
P. O. Box 758680
Fairbanks, AK 99775-6860

Email: uaf-housing@alaska.edu
Telephone: 907-474-7247
Fax: 907-474-6423

**Dining Services**

**The UAF Dining Experience**

UAF Dining offers a welcoming, affordable dining experience for Fairbanks residential and commuter students. With multiple locations on the Fairbanks campus, you will find something to satisfy all your dining needs. All of them accept cash, BearBucks, Munch Money and credit cards. Please visit the UAF Dining website (http://www.uaf.edu/dining/) for more information on each location.

**MEAL PLAN OPTIONS**

Meal plans are combinations of block meals and Munch Money. All-you-care-to-eat block meals can be used at Dine Forty-nine and as cash equivalency up to $7 at most Fairbanks campus dining locations (excluding Subway) from 11 a.m. until closing. Munch Money is used like cash at all dining locations and most vending machines on campus.

**MEAL PLANS**

All freshmen living in campus housing may only select either the Weekly 7 Block, Weekly 5 Block, Denali plan or Aurora plan.

<table>
<thead>
<tr>
<th>Meal Plan</th>
<th>Block Dinners</th>
<th>Munch Money</th>
<th>Price per semester</th>
<th>Available to</th>
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<tr>
<td>Weekly 7 Block</td>
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<td>Cutler residents</td>
</tr>
</tbody>
</table>

**USING YOUR MEAL PLAN**

Blocks and Munch Money are accessed using the PolarExpress student ID card. With all meal plans, you have the option to eat at any campus dining location or to make purchases at most campus vending machines.

All students living in a residence hall and Cutler Apartments are required to purchase a meal plan, with the exception of graduate students. UAF also offers meal plans to students not living on campus. Students wishing to share meals with others may do so as long as they are present. For more information on meal plan options and plan details, please review the Dining Services program terms and conditions (http://www.uaf.edu/dining/).

All pricing is per semester. Students will automatically be enrolled in the same meal plan in the spring semester unless Dining Services is notified.
in writing of a different selection. These plans are nontransferable. Weekly block dinners will reset on Sundays. Up to $250 in leftover Munch Money from the fall semester will be added to the spring meal plan, but expires at the end of the academic year in May if not used. Unused blocks and Munch Money are nonrefundable.

Dining services on campus are provided by UAF partner Chartwells Higher Education Dining Services, an international food and facilities management services company. Check Dining Services' website (http://www.uaf.edu/dining/) for additions or changes.

Where To Get More Information

Dining Services
University of Alaska Fairbanks
309 Eielson Building
P.O. Box 757815
Fairbanks, AK 99775-7815
Email: uaf-dining@alaska.edu
Telephone: 907-474-6661
Fax: 907-474-5707
SERVICES AND RESOURCES

Academic Advising and Learning Assistance

Academic advising is a vital part of a student’s experience at UAF. In fact, academic advising is so important that UAF requires all degree students to meet with their academic advisor at least once a semester, including the summer semester, before students can schedule courses. An academic advisor can help students to develop an educational plan encompassing a student’s academic and career goals, major and/or minor requirements, and help provide a semester-by-semester study plan to ensure timely graduation. Students can also see degree and major requirements through DegreeWorks at UAOnline (http://uaonline.alaska.edu). UAF students admitted into a major will be advised by a faculty member from the department or a staff advisor from the school or college. Visit the newly admitted student page (https://www.uaf.edu/admitted/advising.php) for a list of academic advisor contact information.

The Academic Advising Center on the Fairbanks campus helps general studies undeclared and pre-major students as well as students in majors who are exploring other bachelor degrees. Certificate, associate, vocational and technical program students are advised at the Community and Technical College’s Student Advising and Registration Center, in downtown Fairbanks. Native and rural Alaska students are encouraged to seek an academic advisor from Rural Student Services, in the Brooks Building. Students attending community campuses outside Fairbanks should contact local student services staff for information on registration, deadlines and other policies unique to their campus or region.

Academic Advising Center

Academic Advising Center advisors offer comprehensive guidance for general studies undeclared, exploratory, pre-major, and AHEAD students, as well as student-athletes, nondegree students, academically disqualified students, and students who are in transition from a declared major to another degree program. The center is also a clearinghouse for general university and degree information. Academic advisors at the AAC also help students with information about nontraditional credit options like credit for prior learning and meeting requirements for pre-professional academic programs like law, dentistry, architecture, pharmacy, physician assistant, or other pre-professional programs outside of what is offered in Alaska.

The Academic Advising Center, in cooperation with other departments, provides academic support with reference materials, referrals, and study assistance to build and refresh knowledge in writing, math, reading and science. Staff can also help students discover their interests, abilities and aptitudes using software programs, inventories, and other tools and assessments that provide guidance about careers and academic majors. These programs are free for UAF students.

Contact the Academic Advising Center by visiting 510 Gruening, calling 907-474-6396 (toll-free at 888-823-8780), or emailing uaf-advising@alaska.edu (uaf.advising@alaska.edu). Specific information for students can be found on the Academic Advising Center website (http://www.uaf.edu/advising/).

Community and Technical College Student Advising and Registration Center

The Community and Technical College Student Advising and Registration Center provides advising and support for students in A.A. and A.A.S. degree, certificate and specialized training programs to contribute to a successful learning experience and transition to a career. Staff recognize the unique concerns of adult and returning students as well as traditional students entering college. Academic advisors can help with pre-admission advising, academic assessment, placement, and financial aid information and applications, as well as with choosing a major.

The center offers academic support through developmental courses, workshops, classroom presentations and one-on-one assistance to help conquer academic hurdles. In addition, advising staff provide personalized career advice based on job market information and a student’s personal goals. Staff ensure that students have a broad base of support as they plan the move from college to career.

For more information, contact the Student Advising and Registration Center by visiting the Community and Technical College located at 604 Barnette St., Fairbanks, AK 99701, calling 907-455-2800 or visiting the Student Advising and Registration Center website (http://www.ctc.uaf.edu/student/).

Rural Student Services

Rural Student Services is the vital link between the Fairbanks campus and rural Alaska communities. RSS provides comprehensive academic advising services with a focus on the freshman and sophomore years. Advisors at RSS recognize and are sensitive to the unique cultural components of Alaska Native and rural Alaska students at UAF. RSS advisors provide comprehensive advising and referrals to various support services on the Fairbanks campus. RSS advisors register students for classes, explain academic requirements and explore degree options. Other RSS services include assistance with admissions and financial aid, career advising, and student advocacy.

RSS functions as a student center in the Brooks Building where students can share Native cultural traditions on campus and attend a variety of Native student club activities. Students who are enrolled at UAF and are Alaska Native or come from a rural area are encouraged to use the resources and services offered by Rural Student Services.

For more information visit Rural Student Services, located on the Brooks Building main floor, call 907-474-7871 or 888-478-1452, email uaf-rss@alaska.edu or visit the Rural Student Services website (http://www.uaf.edu/ruralss/).

International Student Advising

Students from other countries face many situations that American students do not encounter. International students must comply with immigration regulations, adapt to a new and often strange culture, and adjust to the American system of higher education. International student advisors are a liaison between the student and various U.S. immigration agencies. Advisors issue documents so students can apply for visas, help students adjust to UAF, and provide immigration and personal assistance.

For more information, contact International Programs and Initiatives at 907-474-7677 or 907-474-7157, uaf-internationalprograms@alaska.edu or at the International Programs website (http://www.uaf.edu/oip/).
Student Support Services

Student Support Services gives students opportunities for academic development, helps them meet college requirements and motivates them to complete their degree program. SSS addresses the unique challenges faced by students from non-college-going and limited-income backgrounds, and supports students experiencing a documented disability by helping them take advantage of academic support resources at UAF. The program is primarily funded by a TRiO grant from the U.S. Department of Education, as well as additional institutional support.

Services include comprehensive advising, tutoring and peer coaching, free printing, first-year learning communities, academic and STEM mentoring, cultural and social engagement, laptop and media loans, and a supportive environment. Eligible incoming local freshmen are encouraged to apply to the Emerging Scholars Academy bridge program held every fall.

All services are free to eligible students. The program is staffed with certified student tutors.

To receive SSS program services, a student must have an academic need and meet one or more of the following criteria:

- be financially limited according to federal criteria,
- be a first-generation college student (meaning neither parent has earned a bachelor’s degree), or
- have a documented physical or learning disability.

Participants must also be U.S. citizens or permanent residents, be enrolled in at least 9 credit hours and must be admitted to and pursuing a bachelor’s degree from UAF.

For information, visit Student Support Services in 514 Gruening, call 907-474-6844, email trio.sss@alaska.edu or visit the Student Support Services website (http://www.uaf.edu/sss/) for an application.

Tutoring Services

Information about lab hours for all Fairbanks campus academic support resources and tutoring options is on the Academic Advising Center website (https://www.uaf.edu/advising/student-resources/). Most of these resources are free.

- **Accounting Lab**
  The Accounting Lab provides tutoring services to students enrolled in accounting courses. Located in 219 Bunnell Building, the lab is staffed by accounting graduate students and outstanding undergraduate students. Lab hours are assigned (but flexible) Monday through Saturday. For more information, contact the Department of Accounting and Information Systems at 907-474-7461.

- **Chemistry Learning Center**
  For more information contact the Department of Chemistry and Biochemistry at 907-474-6287 or visit the Chemistry Learning Center website (http://www.uaf.edu/chem/clc/).

- **Developmental Education Math, English and Reading Labs**
  The Department of Developmental Education provides academic support labs in math, English and reading. These labs are at each rural campus, at the Community and Technical College, and on the Fairbanks campus. Labs provide tutoring and small-group instruction for students taking developmental, academic or vocational math, and reading and writing courses. Academic support labs supplement and support student learning as well as improve and expand student skills in these areas. For further information contact your local campus or the Department of Developmental Education at 907-474-1112 or 877-747-1580.

- **Foreign Language Laboratory**
  The language lab, in 609 Gruening, provides assistance in French, Spanish, Japanese, German and Russian. Computer programs, CDs, cassettes and spell-checkers are available. Call the Department of Foreign Languages and Literatures at 907-474-7396 for lab hours.

- **Math and Statistics Laboratory**
  This lab provides flexible-hour assistance seven days a week to students enrolled in mathematics and statistics courses. The lab is coordinated by faculty, and services are provided by students. For more information, contact the Math Department at 907-474-5427.

- **Speaking Center**
  The Speaking Center, in 507 Gruening, provides coaching on refining presentation topics and presentation organization. Students receive immediate, constructive suggestions from a Speaking Center coach. The center is usually open weekdays and some evenings. Visit the Speaking Center website (http://www.uaf.edu/speak/) for center hours. For more information, contact the Speaking Center at 907-474-5470 or uaf-speakingcenter@alaska.edu.

- **Writing Center**
  The Writing Center, in 801 Gruening, is open Sunday through Friday for tutoring all enrolled students. The staff, composed of English graduate teaching assistants and outstanding undergraduate students, reviews student writing projects at any stage, from planning to drafting and revising. Tutors are available to help students improve grammar and usage. For information, call the Writing Center at 907-474-5314.

Academic Records, Registration and Graduation

The Office of the Registrar provides guidance for all students in registration, academic records support, academic policy interpretation, classroom scheduling, degree audits, graduation certification and transcript processing. The office offers training workshops for students and staff on a variety of topics, including DegreeWorks, UAOnline, faculty grading and registration. All services (e.g., registration, grades, degree audits and unofficial transcripts) are available through UAOnline (http://uaoonline.alaska.edu). Visit the registration guide (http://www.uaf.edu/register/) for information about how to register.

For more information, contact the Office of the Registrar (http://www.uaf.edu/reg/) on the first floor of Signers’ Hall, call 907-474-6300, or email uaf-registrar@alaska.edu.

Alumni Association

The UAF Alumni Association is an independent nonprofit that connects and supports UAF graduates and former students. The association works closely with the Office of Development and Alumni Relations, and offers scholarships, sponsors networking events in Alaska and the Lower 48 including the Nanook Rendezvous reunion, and advocates on behalf of the university before the state Legislature. Through the association, alumni have the opportunity for lifelong involvement with UAF and their former classmates. For more information contact the alumni association at 907-474-7081, uaf-alumni@alaska.edu or the alumni association website (http://www.uaf.edu/alumni/).
Army ROTC

UAF is home to the only Army Reserve Officers Training Corps in Alaska. The military science program is staffed with regular Army and Alaska National Guard officers and noncommissioned officers. The curriculum challenges students to develop interpersonal, mental and physical skills, cultivating leaders of character capable of bearing the responsibilities of tomorrow’s civil and military leadership positions.

The focus of ROTC is academic excellence and preparing leaders. All students enrolled in at least one course are assigned a faculty member to provide leadership and academic counseling.

ROTC offers a variety of resources, including scholarships, athletic teams and academic assistance. Neighboring Fort Wainwright offers students numerous opportunities to participate in military activities such as the Arctic biathlon competition, mentorships and recreational activities in an Arctic environment. For more information visit the UAF ROTC website (http://www.uaf.edu/rotc/) or call 907-474-7501.

Financial Assistance

Army ROTC provides financial assistance in the form of scholarships and stipends. The current stipend ranges between $300-$500 monthly depending on military science class level and is tax-free for all committed cadets. ROTC scholarships also pay 100 percent of tuition and mandatory fees and provide $1,200 annually for books and supplies. Scholarships are available for two to four years and may be used for graduate studies.

Army ROTC also offers partnership, or simultaneous membership, programs with the Reserves and National Guard. These partnerships provide a suite of financial assistance programs for ROTC cadets, including tuition assistance, GI Bill® benefits, bonuses, stipends and pay. In addition, Army ROTC at UAF is granted a limited number of room waivers and chancellor’s tuition waivers for qualified students. For more information call 907-474-7501 or visit the UAF ROTC website (http://www.uaf.edu/rotc/).

Curriculum

The military science curriculum is an approved minor which includes credit for one writing- and one oral-intensive course. Classes, including outdoor skills labs, are offered every semester. Labs give students hands-on instruction in areas such as rappelling, skiing, first aid, land navigation and survival.

Army ROTC comprises two levels: the basic course followed by the advanced course. Credit for the basic course can be earned in three ways: by completing freshman and sophomore military science classes, by completing a four-week summer camp or by having prior military basic training. Students incur no obligation to Army ROTC or the Armed Forces during the basic course.

Students who complete the basic course may enter the advanced course, which is normally reserved for juniors and seniors pursuing a commission in the regular Army, Army Reserves or Army National Guard. For more information contact the Department of Military Science at 907-474-6852/7501, uaf-army-rotc-dept@alaska.edu (https://mail.google.com/a/alaska.edu/mail/?view=cm&fs=1&f=1&to=uaf-army-rotc-dept@alaska.edu) or through the UAF ROTC website (http://www.uaf.edu/rotc/).

GI Bill® is a registered trademark of the U.S. Department of Veterans Affairs (VA).

ASUAF

The Associated Students of the University of Alaska Fairbanks is in Wood Center. All students enrolled in 3 or more credits are ASUAF members. ASUAF runs service departments and programs dedicated to the interests and welfare of UAF students. ASUAF represents UAF students to the university administration, the board of regents and the Alaska Legislature. Officers are selected by the student body in elections held every fall and spring semester. For information, visit the ASUAF website (https://www.uaf.edu/asuaf/), email asuaf.office@alaska.edu or call 907-474-7355.

Athletics

The National Collegiate Athletic Association is the primary association that governs and controls intercollegiate athletics on the national level. The Alaska Nanooks athletic program is a multidivisional member of the NCAA, with 10 teams competing at the Division I and Division II levels, including men’s and women’s basketball, men’s and women’s cross country running, men’s and women’s Nordic skiing, coed rifle, women’s volleyball, women’s swimming, and men’s ice hockey. For intercollegiate athletics information, call 907-474-6665 or visit the Alaska Nanooks website (http://www.alaskananooks.com).

The Alaska Nanooks have conference affiliations with the Great Northwest Athletic Conference, Western Collegiate Hockey Association, Rocky Mountain Intercollegiate Ski Association, and Pacific Collegiate Swim and Dive Conference. The 10-time NCAA champion Alaska Nanooks rifle team competes in the Patriot Rifle Conference.

The Ernest N. Patty Center, home of the Alaska Nanook teams, was completed in 1963 and houses a 1,650-seat gymnasium, a 25-yard swimming pool, athletic training room, ticketing box office, varsity weight room, rifle range, administrative offices and locker rooms with saunas. In 1979, the 1,300-seat Patty ice arena was built to the west of the Patty Center. The Alaska Nanooks men’s hockey team practices at the Patty ice arena and competes off campus at the 4,595-seat Carlson Center.

Campus Mail Center

To receive mail on the Fairbanks campus, students who live on campus must rent a campus mail box, located on the lower level of Constitution Hall. There is no alternative for mail delivery on campus. All mail for students living on campus comes to the Campus Mail Center and is not delivered anywhere else on campus. This includes USPS, FedEx and UPS mail.

The mailbox rental fee is $75 per semester and is billed automatically to the student’s account at the beginning of each semester (fall and spring). Billing will continue until the mailbox account is closed through UAOnline (http://uaonline.alaska.edu). Students who do not live on campus may also rent mailboxes as long as enough are available. Limited numbers of larger boxes are available for additional cost. There is a $25 charge for lost or unreturned keys.

Renting, updating address information and closing mailboxes are done through the Student Services and Account Information area on UAOnline (http://uaonline.alaska.edu).
Mailboxes are for individual or family use. They are not to be shared with other students. Mail not addressed to the box holder will be returned to the sender. USPS mail is delivered to box holders only through their mail boxes; UPS and FedEx will deliver packages to the Campus Mail Center using the physical address: 1692 Tok Lane #107, Box 75xxxx (using the student's mail box number), Fairbanks, AK 99775. A delivery notice will then be placed in the student’s mail box. Parcel lockers are available for most package pickups and can be accessed during the building’s open hours (Monday-Friday, 7 a.m.-10 p.m., and Saturday-Sunday: 7:30 a.m.-5:30 p.m.). Oversized packages and those requiring signatures can be picked up during the Campus Mail Center’s open hours (Monday-Friday, noon-3 p.m.).

For more information, visit the Campus Mail Center website (http://www.uaf.edu/fs/services/campusmailcenter/). Questions? Email us at uaf-campusmailcenter@alaska.edu, call 907-474-7215, or write UAF Campus Mail Center, P.O. Box 750100, Fairbanks, AK 99775-0100.

Campus Recreation

Recreational opportunities are organized by Nanook Recreation. Activities are housed primarily in the Student Recreation Center, the Patty ice arena and the Patty Center. For information on hours, recreational activities or intramurals, call 907-474-5886 or visit the Nanook Recreation website (http://www.uaf.edu/recreation/).

The SRC offers a wide variety of structured and unstructured recreational activities. The SRC provides a weight room and a large gym floor that can be divided into courts for volleyball, tennis, badminton, soccer and basketball. A two-story indoor climbing wall, an eight-lap-per-mile running track, aerobics/dance floor and cardiovascular machines provide many options for a well-rounded workout. Eligible students have access to SRC facilities when your fees are paid — just remember to bring your workout shoes as street shoes are not allowed on the courts or floors.

Intramural leagues and competitions and fitness and recreation instruction give students many opportunities to stay fit, learn lifetime skills and use the skills they already have. Nanook Recreation staff members develop and support sports clubs in response to student interests and available resources.

Outdoor fields for soccer and Ultimate Frisbee, an outdoor climbing wall — which in winter is converted to an ice climbing wall — and a disc golf course are next to the SRC, and the campus has many miles of cross-country trails for running, walking and skiing, including a lighted ski trail. In addition, recreational skating, recreational hockey, and intramural hockey take place at the Patty Ice Arena, also next to the SRC. Students taking 6 credits in a classroom and paying the recreation fee also have the opportunity to receive a season pass to Ski Land at no additional charge. Ski Land has the farthest north chairlift in North America, ski and snowboard rentals, miles of trails, a terrain park and an aurora viewing lodge. Go to the Nanook Recreation website (http://www.uaf.edu/recreation/) for more details.

Explore Alaska’s wild frontier by joining an Outdoor Adventures excursion. OA organizes a variety of outings, such as hikes, whitewater raft trips and rock climbing excursions. OA also offers courses such as ice climbing, winter camping and wilderness leadership. Equipment is available for rent, including backpacks, canoes, cross-country skis and much more. Visit the Outdoor Adventures office in the Student Recreation Center or at the Nanook Recreation website (http://www.uaf.edu/recreation/) for more information.

Students with disabilities are encouraged to participate in campus recreation programs. Anyone confronted with any barrier to participation is urged to contact the SRC office.

Career Services

Career Services provides career counseling and job search assistance, and also reviews statements for graduate school applications. The Career Services advisor reviews resumes and cover letters, conducts practice interviews and provides online resources through the Career Services website. Information about employment, internships and on-campus jobs is available 8 a.m.–5 p.m., Monday–Friday.

Students and alumni can network with employers and explore careers by participating in on-campus recruitment events, career weeks focused on specific fields, and job fairs where students can apply for full-time employment and internships with local, statewide and national employers. Career Services is on the third floor of the Eielson Building. For more information call 907-474-7596, email uaf-career@alaska.edu or visit Career Services online (http://www.uaf.edu/career/).

Continuing Education and Professional Development

The Community and Technical College offers training and continuing education programs to meet employment needs in the trades and professions. In response to individual and community demands, CTC provides short courses, noncredit workshops, supervisory and customer service skill seminars for local businesses and agencies, and general programs for cultural enrichment. Programs can be tailored to a specific group or need, and offer an economical way to improve workforce development skills. Call 907-455-2858 for more information about professional development.

Cooperative Extension Service

The Cooperative Extension Service is part of the largest informal education system in the world, connecting Extension programs and land-grant colleges and universities in every U.S. territory and state.

Whether teaching people how to can salmon, build a house or compost with worms, Extension Service staff have provided research-based, practical education to Alaskans since 1930. Extension now offers community outreach and engagement programs in all areas of the state.

UAF’s outreach role is filled in part by Extension faculty and staff in Anchorage, Bethel, Delta Junction, Dillingham, Fairbanks, Juneau, Kodiak, Nome, Palmer, Sitka and Soldotna, and in affiliate offices with the Tanana Chiefs Conference and Eielson Air Force Base.

As the state’s gateway to the university system, Extension serves some 50,000 Alaskans annually, providing a link between Alaska’s diverse people and communities by interpreting relevant knowledge of interest to Alaska residents. Major issue areas include food safety and security, health; climate change; energy; youth, families and communities; and economic development.

Extension has produced hundreds of publications and videos on a variety of topics with practical information that Alaskans can use. These are available at district offices or online at the Extension website (http://www.uaf.edu/ces/).
Developmental Education

The mission of developmental education at UAF is to make educational opportunity and success possible for all students by developing the skills and attitudes necessary to achieve academic excellence and student success, and to develop lifelong learning skills.

Developmental education courses prepare students for university academic and vocational/technical programs by improving skills in math, writing and reading. Study skills classes prepare students to successfully negotiate the university experience. A student’s need for developmental education courses is determined by high school transcripts, test scores, other achievement data and discussions with counselors, advisors and instructors. Students may also take developmental education courses when they want to improve their skills or proficiency.

There are three categories of developmental education courses:

- developmental math
- developmental English (writing skills)
- developmental studies (reading and study skills)

Descriptions of developmental education classes are listed in the courses section under math, writing and developmental studies.

For more information, contact the Department of Developmental Education offices at 907-474-1112 or visit the Developmental Education website (http://www.uaf.edu/deved/).

Disability Services

Disability Services strives to ensure universal access to classes, coursework, housing, programs and activities. UAF has designated Disability Services to determine reasonable accommodations for students with disabilities. Accommodations are free and available to any student who qualifies as an individual with a disability or chronic illness and is enrolled in at least 1 credit hour.

The Disability Services Office at UAF serves students who are enrolled in classes at the Fairbanks campus, as well as the Bristol Bay, Chukchi, Interior Alaska, Kuskokwim, Northwest, and Community and Technical College campuses, eCampus, and the College of Rural and Community Development.

Disability Services uses an interactive process designed to be convenient for students. It starts with a simple conversation. Our first goal is to better understand your unique experience. We then partner with faculty and staff to provide academic, university housing and programmatic accommodations.

For more information contact Disability Services at 907-474-5655 or 907-474-1827 (TTY), email uaf-disability-services@alaska.edu or visit the Disability Services website (http://www.uaf.edu/disabilityservices/). You can also visit the Fairbanks campus office in Whitaker 208.

E-learning

UAF’s eCampus offers an alternative for anyone preferring an online educational option. The advantage of e-learning, also known as online learning, is its flexibility. Students select their own hours of study and work in surroundings they choose. E-learning offers the freedom to structure a personal academic schedule and the flexibility to continue educational progress, even when it is impossible or challenging to attend scheduled, face-to-face classes.

UAF eCampus offers more than 350 asynchronous courses in 60 disciplines and offers full degrees and certificates completely online. eCampus courses follow all university calendars and deadlines and must be completed within the semester time frame. These courses use the Blackboard Learning Management System. Students are required to have reliable Internet access to complete eCampus courses and may be required to have quizzes or exams proctored.

For UAF students, eCampus courses count as residence credit. When a student enrolls in an eCampus course, the course may be used to determine full-time/part-time status and eligibility for financial aid and scholastic action. The grade will average in both semester and cumulative GPAs.

Information on course offerings, online certificates and degrees, enrollment information and course descriptions can be found at the eCampus website (http://ecampus.uaf.edu). For more information contact UAF eCampus in 131 Bunnell Building on the Fairbanks Campus, by phone at 800-277-8060 or 907-455-2060, via email at uaf-ecampus@alaska.edu or at the eCampus website (http://ecampus.uaf.edu).

The University of Alaska provides many possibilities for students to take distance-delivered courses. The campuses at Anchorage, Fairbanks and Juneau, along with their community college networks, offer hundreds of courses using a variety of delivery modes. Opportunities for students who prefer distance-delivered courses can be found at the University of Alaska distance learning website (http://distance.alaska.edu).

Equity and Compliance

Staff in the Department of Equity and Compliance lead a focused effort to build inclusive systems and a welcoming environment at UAF. Staff ensure equality of employment and educational opportunities, and work to eradicate discriminatory practices.

DEC staff investigate complaints of discrimination and sexual harassment and work with parties to find resolution. If students or employees believe they are being treated differently because of their race, religion, color, national origin, citizenship, sex, sexual or mental disability status, as a protected veteran, marital status, changes in marital status, pregnancy, childbirth or related medical conditions, parenthood, financial status, sexual orientation, gender identity, political affiliation or belief, genetic information, or other legally protected status, they can lodge a complaint with DEC. Complaints can be filed online (http://www.uaf.edu/oeo/) or by visiting the office.

The Department of Equity and Compliance is in the 355 Duckering Building at 1760 Tanana Loop. For more information call 907-474-7300 or visit the DEC website (http://www.uaf.edu/eqc/).

Exam Services

As a national testing center, eCampus Exam Services administers paper-and-pencil and computer-based exams. The office advises UAF students, prospective students and the community on national testing matters for college admissions and placement and for career and professional certification. eCampus Exam Services also coordinates credit by examination for local tests, for the College-Level Examination Program...
and can perform private proctoring. For more information and registration materials, visit eCampus Exam Services in 122 Bunnell Building, call 907-474-5277, email uaf-testing@alaska.edu or visit eCampus Exam Services online (https://ecampus.uaf.edu/exam-services/).

General Studies and Undeclared

Students pursuing a bachelor's degree who haven't declared a major or haven't decided which major to pursue are admitted as undeclared students. Undeclared students usually take courses required for the university general education requirements. Many of these courses are the same for all majors and allow you to make progress toward completing degree requirements while at the same time investigating subject areas that may help you choose a major or career. Undeclared students work with academic advisors in the Academic Advising Center who encourage exploring, selecting and committing to an appropriate major. All undeclared students must declare a major before they have earned 75 credits. To declare a major, simply complete a change of major form available from the Office of the Registrar or at the Registrar’s website (http://www.uaf.edu/reg/forms/). Students receiving GI assistance or veteran's benefits may be required to change to a declared major to keep their benefits award. Students must have declared a major in order to participate in the Western Undergraduate Exchange Program.

Pre-Major

Students admitted in pre-major standing have not met the admission requirements for bachelor's degrees but are intending to major in a bachelor's degree. As a bachelor's-intended student, you will work with advisors in the Academic Advising Center, but it is helpful to also contact the department of your intended major. Pre-major students will work with an academic advisor from the Academic Advising Center to determine the best selection of courses to pursue their desired major, as well as complete any additional admittance requirements into their desired program. Students who are in good standing and have completed 14 credits at the 100 level or above with a C grade average (2.0) or better, of which 9 credits must satisfy baccalaureate general education requirements, will be changed to undeclared major status. The vice provost will notify students of their change of status and inform the registrar. Undeclared students can then use the change of major form to move from undeclared to their desired major. Admittance into a desired major is determined by the completion of individual program requirements and approval of the department chair.

Honor Societies

These honor societies are active at UAF:

- Chi Epsilon (civil engineering)
- Golden Key International Honour Society (all disciplines)
- Phi Alpha Theta (history)
- Pi Sigma Alpha (political science)
- Psi Chi (psychology)
- Tau Beta Pi (engineering)

For more information or a current list of honor societies, contact the Honors College at 907-474-6612 or the Student Leadership and Involvement Office (https://www.uaf.edu/sli/) at 907-474-1170.

Honors College

The UAF Honors College provides opportunities for students to pursue excellence in academic and personal development. We foster critical and independent thinking and help students become informed, responsible and active citizens. Honors students have access to small classes, research opportunities, intensive advising and scholarships. Students are encouraged to participate in service, leadership, research, study abroad, internships and other opportunities that contribute to their personal growth.

Eligibility

To be eligible to join the Honors College, entering first-years must have a cumulative high school GPA of 3.6 or higher, a combined SAT score of 1280 or higher, or a composite ACT score of 27 or higher. Current UAF students and transfer students must have a combined cumulative GPA of 3.5 that includes at least 24 credits of college courses. The Honors College accepts applications all year. The application form is available on the Honors College website (https://www.uaf.edu/honors/).

Program Features

Honor students complete a flexible schedule of courses that includes honor sections of some general education courses and courses developed specifically for the Honors College. Other courses may be contracted for honors credit by students who work with individual professors. With approval of the director, students who study abroad may earn up to 12 honors credits for the academic courses they take at their host universities. Undergraduate students who complete graduate courses may count those courses toward their honors course requirement. In all cases, courses will only count toward the honors distinction if the student earns a grade of B (3.0) or higher. Honors students must be enrolled full-time in a baccalaureate degree program and are expected to complete a minimum of 6 honors credits each academic year.

The Honors College offers students intensive advising with an opportunity to develop a personal plan for their UAF years that builds in extracurricular opportunities, research, leadership, service and more to meet the goals of each student.

The Honors House, located in the heart of campus, provides honors students a casual and comfortable home away from home. The house includes computer labs, a smart classroom, quiet study areas, a kitchen, a laundry room and a place for social gatherings.

College Requirements

To graduate with a distinction from the Honors College, students must fulfill GPA, capstone project or thesis, and honors course and credit requirements.

Honors students must maintain a cumulative GPA of at least 3.25. Students whose cumulative GPA falls below 3.25 for two consecutive semesters will be removed from the college unless an appeal is approved by the honors director.
In addition to the other college requirements, students must work with a faculty mentor to complete a capstone thesis or project that includes a written component and an oral presentation.

University Honors Scholar distinction is awarded at commencement to students who complete 27 or more credits of honors courses including specific honors courses, elective honors courses, and a capstone project or thesis, in addition to other program requirements. Students who join the program after they complete 60 or more credits, either from UAF or from a transfer institution, can graduate as an Honors Thesis Scholar by completing 12 credits of honors course work and a capstone project or thesis in addition to other program requirements.

Additional Information
For more information contact the Honors College at the Honors House, 520 Copper Lane, 907-474-6612, uaf.honors@alaska.edu or visit the Honors College website (https://www.uaf.edu/honors/).

Libraries
UAF has two libraries on the Fairbanks campus and libraries on three rural campuses. The Elmer E. Rasmuson Library, on the Fairbanks campus, is the largest academic library in the state, with more than a million volumes. The Keith B. Mather Library, also on the Fairbanks campus, holds collections in the geological and biological sciences and is Alaska’s U.S. Patent and Trademark Office depository. Both libraries offer wireless networking, public computer terminals, and designated quiet study spaces with natural lighting. Rasmuson Library also has group study rooms and a secure 24-hour study space with a student computer lab.

The Rasmuson and Mather libraries provide extensive reference and instructional services for students. Library faculty and staff help students conduct library research using print materials and online databases and collections. The library information and research course, LS F101X, is a required course for bachelor’s and associate degrees and gives students an introduction to effective methods of identifying, locating and evaluating information resources.

UAF libraries provide access to online catalogs and databases, as well as resources worldwide through interlibrary loan. The library website is a gateway to more than 300 online resources, with broad coverage in the sciences, humanities and social sciences, management, and engineering. Web-based indexes and collections link to full-text articles from more than 60,000 periodical titles. Additional web-based resources include reference tools, electronic books, specialized sources for Arctic and polar information, and indexes to special formats such as government documents and dissertations. ScholarWorks@UA, the University of Alaska online institutional repository, makes theses, dissertations, articles and other scholarly works by UA students and faculty available to the public.

The Rasmuson Library is a federal depository library and houses titles from the Government Printing Office that are relevant to Alaska and some Pacific Northwest states. Special collections in the library include the internationally recognized Alaska and Polar Regions Collections and Archives, which houses historical books, periodicals, documents, manuscripts, photographs, film, audio recordings and maps. APRCA hosts Alaska’s digital archives and continues to digitize archival materials to make additional specialized materials available to the public.

Get more Rasmuson Library information at 907-474-7481, AskRasmusonLibrary@uaf.libanswers.com or at the Rasmuson Library’s website (http://library.uaf.edu).

Military and Veteran Services
The University of Alaska Fairbanks is home to a strong and growing community of military and veteran students. As a military-friendly school, we are dedicated to providing academic opportunities and a supportive learning environment that serves the unique needs of active service members, veterans and their families. UAF offers in-state/resident tuition, credits for military training, flexible online degree programs, VA and TA educational benefits advising and other resources for veteran and military students. We are also ranked as one of America’s Best Military Friendly Online Colleges.

The UAF Department of Military and Veteran Services is dedicated to providing comprehensive support to military, veterans and their dependents in an atmosphere of respect for their service to the nation. The DMVS endeavors to assist students utilizing VA educational benefits, Tuition Assistance, and MyCAA grants to meet their educational goals. The DMVS strives to build a community for past, present and future military-affiliated students.

The Post-9/11 GI Bill pays tuition and fees up to 36 months. This benefit is available for individuals with at least 90 days of aggregate service on or after September 11, 2001, individuals discharged with a service-connected disability after 30 days, dependent children and spouses using benefits transferred by a qualifying veteran or servicemember and also Purple Heart recipients who were honorably discharged after September 11, 2001 with any amount of service.

The Montgomery GI Bill (Chapter 30) is another veterans education benefit to help with tuition and training costs. There are three programs available: Active Duty, Selected Reserve and Reserve Educational Assistance Program (REAP).

This VA education benefit for military veterans helps with vocational rehabilitation services (Chapter 31) for veterans who have a service-connected disability of 10% and higher.

If you’re the spouse or child of a veteran or active service member who has died, is captured or missing, or is permanently or totally disabled as the result of a service-connected disability, you may be able to get help paying for college or professional training through the DEA program (Chapter 35) or Fry Scholarship.

Tuition assistance is available to many active duty, Reserve and National Guard members. The DMVS helps service members utilize their tuition assistance benefits.

For more information, contact the Department of Military and Veteran Services at 907-474-7400, uaf-veterans@alaska.edu or visit the DMVS website (http://library.uaf.edu/veterans/).

New Student Orientation
New Student Orientation helps incoming students establish a foundation for success. All new students are strongly encouraged to participate in New Student Orientation on the Fairbanks campus. Orientation is required for all first-year bachelor’s-degree students (regardless of the number of earned college credits) and international students.
(undergraduate F-1 and international exchange J-1 status). Domestic transfer students are also encouraged to attend.

New Student Orientation features a variety of workshops and activities to address the needs of incoming students, including campus tours, opportunities to meet faculty and staff, numerous campus resource presentations, and many fun social events. Fall semester includes the popular family orientation for parents and other family members of new students. Fees are $115 per student for fall orientation, which covers all programs except special Outdoor Adventures activities; $25 for one-day fall transfer student orientation; $25 (plus $10 each additional guest) for two-day fall family orientation; and $35 for spring orientation. For more information, contact the New Student Orientation office at 907-474-1103 or visit the New Student Orientation website (https://www.uaf.edu/admitted/orientation/).

Northern Military Student Services

Northern Military Student Services (https://www.ctc.uaf.edu/student-services/military-student-support/) is available for military personnel and their families located at Fort Wainwright, Eielson Air Force Base, Fort Greely/Delta Junction, and Clear Air Station through UAF's Community and Technical College. UAF has been designated a Military Friendly Institution since 2008, and, in addition to providing student services, UAF CTC offers university classes at Fort Wainwright, Eielson Air Force Base and via distance education. UAF CTC also offers courses to the Delta community at Fort Greely and the Career Advancement Center in Delta Junction.

Offices at Fort Wainwright and Eielson Air Force Base actively support the Wounded Warrior Transition Unit through services that include academic and financial aid advising, future career preparation, registering for classes, placement testing for writing and math (Accuplacer and ALEKS), and UAF eCampus Exam Services for awarding college credit (CLEP and DANTES).

For information contact Northern Military Student Services offices at Eielson Air Force Base, 2631 Wabash Ave., Room 105, 907-377-1396; Fort Wainwright, 4391 Neely Rd., Room 137, 907-356-3826; or Delta Career Advancement Center, 1696 N. Clearwater Road, 907-895-4605.

Polar Express Identification Card

The Polar Express card is the official UAF photo identification card used by students, staff and faculty to access UAF facilities and to make purchases. The card includes your name, photograph and UA identification number. A central database holds information to identify the buildings and rooms you may access, meal plan type, some account balances, library checkouts, computer lab access, and other activities. See the complete list on the Office of the Bursar’s website (http://www.uaf.edu/bursar/polarexpress/).

Your Polar Express card lets you check out library books, vote in student elections, as well as access to the Student Health and Counseling Center and other student services. The card’s magnetic stripe holds a unique key that may provide secure access to residence halls, laboratories and the Student Recreation Center. You can deposit money into your Bear Bucks account, which can be used at all Dining Services locations, photocopiers, the Wood Center counter and the UAF Bookstore. The Polar Express card is a permanent card, valid for two years after the holder’s last affiliation with the university. All privileges expire upon departure from the university, with the exception of Bear Bucks and Munch Money accounts.

Holders who return to the university system within two years and no longer have their PolarExpress card must purchase a replacement card.

You can also enjoy optional banking convenience (https://www.wellsfargo.com/debit-card/campus-card/uaf/) through a second magnetic strip with your PolarExpress card when you link it to a Wells Fargo Everyday Checking Account. This allows you to use it for free access to cash at Wells Fargo ATMs nationwide and for purchases using your PIN.

You can access your account balance and add money to your PolarExpress card through eAccounts (https://eacct-ulaska-sp.transactcampus.com/eaccountsuaf/AnonymousHome.aspx), a secure way to check all your stored value accounts (Bear Bucks, Munch Money, copy card, etc.), add money to your card, view your transaction history, deactivate a lost or stolen card, and more.

Due to recent COVID-19 mandates, we are issuing cards by appointment only. If you need an ID card, please fill out the PolarExpress form (https://nextgensso.com/sp/startSSO.ping?PartnerIdpId=urn:mace:incommon:alaska.edu&TargetResource=https://dynamicforms.ngwebsolutions.com/Submit/Form/Start/a45e53f8-0ee6-45f8-9137-4fa1987e1ce0). If you have any questions about the form, you can contact the Office of the Bursar.

Police and Fire Departments

The UAF Police Department was founded in 1991 to meet the increasing needs of the university community. UAFPD is a progressive, proactive department that strives towards active community engagement. The department is responsible for the protection of the students, staff, faculty and general public on the Fairbanks campus as well as for the protection of university and private property. Through its officers and community service offices, the department provides a variety of functions, some unique to university police departments. These include a firearm storage room for all affiliated personnel, a bike registration program, providing escorts, and conducting after hours vehicle jump starts and unlocks. Police personnel also provide presentations on various topics including violent intruders, personal safety and drug orientation training.

The university emergency communications center serves the Fairbanks campus 24 hours a day. In addition to handling campus law enforcement calls, the center also monitors alarm systems both on and off campus and handles after-hours Facility Services calls. The center employs full-time career dispatchers.

The University Fire Department provides fire, rescue, EMS response and public assistance to the Fairbanks campus as well as the University Fire Service Area and EMS district. The department provides protection for a 26-square-mile area and more than 22,000 people. The department is nationally recognized and staffed full time at two stations, one on campus and one in the fire service area. The department provides plan review and inspection services to the Fairbanks-area and rural campuses. The Fire Department provides exceptional employment and career opportunities for students interested in a career in emergency services. The hands-on, interactive program develops highly skilled individuals able to perform all the duties of professional career firefighters.

The emergency telephone for both police and fire is 911. For more information, call 907-474-7721 for the Police Department, 907-474-5770 for the Fire Department, or visit the Police Department website (http://
www.uaf.edu/police/) or Fire Department website (http://www.uaf.edu/fire/).

**Student Affairs**

Student Affairs facilitates students' learning and development outside of the classroom utilizing various student development, learning, socio-cultural, and retention theories and nationally recognized high impact practices. Student Affairs provides student-centered programs and services to help students achieve their personal, academic and career goals. In collaboration with the academic deans, Student Affairs leads the university in recruiting a diverse student body. With the creative use of ongoing assessment, Student Affairs supports and develops programs and communities that contribute to the retention, success and leadership development of students.

Student Affairs departments include the Office of Admissions; Associated Students of UAF (ASUAF); Athletics Department; Bookstore; Center for Student Rights and Responsibilities; Department of Military and Veteran Services; Dining Services; Disability Services; Financial Aid; Nanook Recreation; New Student Orientation; Office of the Registrar; Residence Life; Student Health and Counseling Center; Center for Student Engagement; Sustainability; and Wood Center.

The Office of the Vice Chancellor for Student Affairs is a resource and referral center where students who don't know where to look for a solution to a problem at UAF will find help. Each department and office has its own web page detailing its student services, or students can visit the Student Affairs website (http://www.uaf.edu/student-affairs/) for a complete list of all departments. For more information contact Student Affairs at uaf-student-affairs@alaska.edu or 907-474-2600.

The Center for Student Rights and Responsibilities is also a resource and referral center where students can get help with concerns, issues or needs. You can get more information at the Center for Student Rights and Responsibilities website (http://www.uaf.edu/csrr/), uaf-studentrights@alaska.edu or 907-474-7317.

**Student Health and Counseling Center**

At the Student Health and Counseling Center, students may receive health care, counseling, substance abuse referrals, health education and assistance with student health insurance. Students must pay the health center fee to be eligible for these services.

The medical staff provides primary health care and referrals for specialty medical services when appropriate. General office visits for preventive care, illness and injury are provided at no charge. Medications, laboratory services, medical supplies and some physical examinations are provided at reduced cost. Students should call for appointments. Urgent care appointments are available when necessary.

The counseling staff offers individual, group and crisis intervention counseling. Counselors, all with graduate-level training, assist with a variety of personal and interpersonal issues. Students should call to schedule appointments. Students in emergency situations are usually seen the same day.

The student health insurance program for international and graduate students on a stipend is administered through the Student Health and Counseling Center. Staff are available to answer questions about policy coverage and to help with information about how to file claims.

The Student Health and Counseling Center is located on the second floor of the Whitaker Building and is open Monday to Friday from 8 a.m.-4:30 p.m. during the regular academic year. During summer, the Student Health and Counseling Center is open Monday, Tuesday and Thursday from 8 a.m.-1 p.m. and Wednesday from 9 a.m.-1 p.m. For more information, call 907-474-7043 or 474-7045 (TTY), fax 907-474-5777, email uaf-sh-cc@alaska.edu or visit the Student Health and Counseling Center website (http://www.uaf.edu/chc/).

**Study Away Programs**

**National Student Exchange**

UAF is a member of the National Student Exchange. Through this program, qualified students may apply for exchange enrollment at any one of almost 200 colleges and universities throughout the United States, its territories and Canada. NSE enables students to study at member institutions and to take advantage of specialized courses or unique programs.

Applicants must have completed a minimum of two full-time semesters at UAF as a degree student and have a minimum 2.5 cumulative GPA in order to participate in NSE. The Alaska Performance Scholarship, UA Scholars and most other forms of financial aid may be used to cover costs. The priority application deadline for the upcoming academic year is March 1.

Students approved to participate in NSE pay a $500 study away fee to UAF each semester they are away. Tuition is either assessed by the host institution at the in-state rate, or the student may pay tuition at UAF, depending on availability.

For more information, visit the National Student Exchange website (http://www.nse.org) and contact UAF’s NSE coordinator at 907-474-6516 or uaf-studyaway@alaska.edu, or visit the UAF study abroad programs website (https://www.uaf.edu/academics/study-abroad.php).

Note: Students attending any campus of the University of Alaska system under the National Student Exchange program are assumed to be receiving the benefit of reduced tuition because of their enrollment at an NSE partner university in another state. Therefore, time spent in NSE does not count toward the time required to establish residency in Alaska for tuition purposes. If students end their participation in NSE, they could begin establishing residency for tuition purposes as set forth in the UA Resident and Nonresident Tuition policy (p. 61) on the Tuition and Fees page.

**Study Abroad And International Exchange Programs**

Studying abroad or participating in an international exchange or internship is an excellent opportunity for every UAF student to learn about other cultures and gain international experience while earning academic credit. Students participating in approved international exchange, study abroad or internship programs enroll at UAF and receive UAF credit. The Alaska Performance Scholarship, UA Scholars and most other forms of financial aid may be used to cover costs of international academic programs; scholarships are also available for many programs. Students interested in gaining international experience should begin planning early in their UAF careers, particularly because prior study of
SSLL educational travel programs take groups overseas several times each year to study the cultural, political and natural history of destination countries.

For more information, contact Summer Sessions and Lifelong Learning, 216 Eielson Building, phone or text 907-474-7021, toll free at 866-404-7021, email summer@uaf.edu, or visit the Summer Sessions website (http://www.uaf.edu/summer/).

Technology on Campus
The Office of Information Technology operates Tech Central in the Bunnell Building on the Fairbanks campus, where students can get free help with their laptops and other devices.

Another popular stop is the OIT service desk, your gateway to many of the other services OIT offers UAF students, faculty and staff. The service desk has two walk-up locations — 231 Bunnell and 102 Butrovich — and can be contacted by calling 907-450-8300 or 800-478-8226, emailing helpdesk@alaska.edu, or visiting OIT online (https://www.alaska.edu/oit/get-help/).

Internet Access, Computing Labs and Smart Classrooms
Wireless internet is available in most public areas and in all buildings on the Fairbanks campus. The residence halls can also connect via wired access.

There are two student computer labs, one in 404 Rasmuson and another 110 Moore-Bartlett-Skarland. There’s also the Nook, in Bunnell 319, a collaborative space that offers a variety of seating options with power outlets, virtual computer stations, wired and wireless network access for student devices, mobile printing, and conference tables where students can share content on their devices with others on a large screen.

On the Fairbanks campus there are 80 smart rooms (classrooms, auditoriums and lab spaces), furnished with instructional technologies such as in-room computers, digital projectors, DVD playback devices, document cameras and digital monitors. Five of these smart classrooms are equipped with automated lecture capture/recording.

Video Conferencing
OIT’s Video Conferencing Services provides consultation, planning, installation, training and scheduling for videoconferencing classrooms and other video-enabled rooms on the Fairbanks campus and across the University of Alaska system. VCS can schedule and support job interviews for students, faculty and staff. For more information visit the OIT Video Conferencing Services website (http://www.alaska.edu/oit/services/video-conferencing/).

Undergraduate Research and Scholarly Activity
As a research university, UAF offers students opportunities to participate in experimental and observational research and creative activities. The Office of Undergraduate Research and Scholarly Activity supports, develops, documents and institutionalizes UAF’s diverse and robust programs of undergraduate research and scholarly activity. Building on existing efforts and capacities, URSA enables UAF students to pursue
The William Ransom Wood Center, under the Division of Student Affairs, is the student union building. It is the focal point of campus activities and services for the university and Fairbanks communities.

Services at Wood Center include event scheduling, campus information, dining facilities, meeting rooms, laundry and shower facilities, and a recreation area with pool tables and video games. Wood Center also has varying levels of research engagement, including independent scholarly investigations, a B.F.A. exhibit or performance, and/or a senior thesis.

Eligibility
Undergraduate students from all disciplines are eligible to engage in research or creative activity for academic credit or for pay. All UAF students are eligible to enroll in URSA courses and apply for URSA awards that support their research or creative projects with funding for travel, supplies, and stipends. First-year students and new transfer students are encouraged to attend the UAF Research and Creative Activity Day or contact the URSA office to learn about research and creative opportunities across all disciplines at UAF. Students can use URSA as a resource to help find a faculty mentor with whom they might work on a research or creative project. The project may be designed by the student or the faculty mentor and will lead to creation of new information.

For more information contact the URSA office at 301 Bunnell Building, 907-450-8772 or ursa.uaf@alaska.edu, or visit the URSA website (https://www.uaf.edu/ursa/).

Upward Bound
The goal of the Upward Bound College Bound program is improving the graduation rates of high school students and increasing the number of UB College Bound graduates who enter colleges and universities. UB College Bound offers two strands: a school year program that works with 10 high schools in Alaska, called “target schools,” along with three distinct six-week summer residential programs held on the UAF campus: UB College Bound (freshman/sophomore), Pre-College Academy (juniors), and the Pathways-2-College bridging program (graduating seniors).

Upward Bound College Bound serves 160 low-income, first-generation college students who demonstrate potential for academic success and whose parents have not earned college degrees. Services offered in target schools include tutorial sessions; educational, recreational or cultural events; group activities; exploration of postsecondary education opportunities and visits to campuses; financial aid application assistance; and participation in the six-week summer program on the Fairbanks campus.

The residential summer program emphasizes academic development for 50 students selected for participation from the target schools. The summer experience helps UB students become familiar with the Fairbanks campus, residence life, services provided and, most importantly, places an emphasis on academic development and growth.

Participation in this program is only available to active UB College Bound target school participants. Upward Bound College Bound is a federally funded program.

For more information, call 907-474-5685 or email ub.classic@alaska.edu.

Wood Center
The William Ransom Wood Center, under the Division of Student Affairs, is the student union building. It is the focal point of campus activities and services for the university and Fairbanks communities.

Services at Wood Center include event scheduling, campus information, dining facilities, meeting rooms, laundry and shower facilities, and a recreation area with pool tables and video games. Wood Center also has the campus lost-and-found center, an ATM, and tickets to cultural and sporting events.

Wood Center is home to the Student Activities Office, which oversees Nanook Traditions. Student Activities organizes events designed to entertain, educate and inspire the UAF community. Nanook Traditions are among UAF’s most highly anticipated annual events. These include the Starvation Gulch bonfires in September, Winter Carnival in February, Festival of Native Arts in March and SpringFest in late April. For more information visit the Student Activities Office website (https://www.uaf.edu/activities/).

The Student Leadership and Involvement program provides opportunities for students to learn about and practice leadership skills and become involved on campus and in the community. Through the SLI program students can complete and earn Co-Curricular Opportunities for Leadership Development certificates. The COLD certificates provide tangible ways for students to be recognized for leadership development within the UAF community and beyond. Students who complete the COLD certificate are eligible for graduation with leadership honors and/or distinction. To find out more about SLI, visit the Wood Center or SLI online (http://www.uaf.edu/sli/).

The Nanook Diversity and Action Center (https://www.uaf.edu/ndac/) promotes a community of inclusion, social justice and cultural pluralism by providing educational activities in collaboration with student organizations that honor and support areas of age, gender, religion, ability, socioeconomic status, race, ethnicity, culture, sexual orientation and gender expression. Additionally, NDAC focuses on prevention and awareness efforts, including Take Back the Night, Green Dot Bystander Intervention, and Sexual Assault Awareness Month.

The Resource and Advocacy Center at UAF provides advocacy and resources referral to students, staff and faculty survivors of power-based personal violence. The office is staffed by a confidential Advocacy Services Coordinator and volunteers. The center provides a confidential resource on campus for survivors. The coordinator is a full-time staff member of the Interior Alaska Center for Non-Violent Living. For more information, contact the center in 130 Wood Center, by phone at 907-474-6360 or email uafadvocate@iacnvl.org.

There are more than 100 student organizations (https://www.uaf.edu/sli/clubs/list.php) active on campus, including clubs, honor societies and Greek life organizations. Membership in a student organization can help you make social connections. It can also help in career and leadership development and enhance your resume. Each semester a student organizations fair provides an opportunity to learn more about these diverse groups. Contact the Student Leadership and Involvement office (https://uaf.edu/sli/) to learn more about UAF student organizations.

The Wood Center Pub offers evening entertainment for those 21 and older with live music, an open mic night, movies, trivia games and karaoke. Special events include theme nights, beer and wine tastings, comedy performances, casino night and more.

The Associated Students of the University of Alaska Fairbanks (ASUAF) is also located in the Wood Center. All students enrolled in 3 or more credits are ASUAF members. ASUAF runs service departments and programs dedicated to the interests and welfare of UAF students. ASUAF represents UAF students to the university administration, the University of Alaska Board of Regents and the Alaska Legislature. Officers are selected by the student body in elections held every fall and spring.
semester. For information, visit ASUAF online (https://www.uaf.edu/asuaf/) or call 907-474-7355.

ASUAF Student Media is also located in the Wood Center. The online news site Polaris News (https://www.polarisnews.org/) and the campus radio station KSUA give students the opportunity to gain experience in news writing and broadcasting.

For more information call 907-474-7034 or visit Wood Center online (http://www.uaf.edu/woodcenter/).
To earn a UAF occupational endorsement, you must satisfy three sets of requirements: general university requirements; occupational endorsement and program (major) requirements. These requirements are all described in this section of the catalog. Requirements for your major are found in the Occupational Endorsement Programs section.

If your endorsement program is delivered collaboratively within the UA system (e.g., information technology specialist, early childhood education, human services and rural human services), then the credits you earn from each UA institution will be counted toward fulfillment of the program requirements and fulfillment of the minimum institutional residency requirements. Institutional residency requirements are the minimum number of credits you must earn from the campus where you earn a degree.

Occupational Endorsements

Occupational endorsement programs are designed to give students occupational training in a specific field. These programs are 9-29 credit hours and will be posted to the student's transcript upon completion and after approval by the academic department. The credit hours may be applied to other undergraduate degree programs where applicable.

General University Requirements

You must earn at least 9 semester credits at the 100 level or above for an occupational endorsement. At least 30 percent of the program must be earned at UAF. A minimum of a 2.0 cumulative GPA is required in all work as well as in your major field. In addition, you must earn a minimum C- grade in courses required for your occupational endorsement. Some programs may require higher GPAs for major course work.

Unless otherwise specified by the appropriate academic unit, a course may be taken more than once toward fulfilling endorsement requirements. However, credit hours for such courses count only once toward total credits required for the endorsement.

Students seeking an occupational endorsement do not apply for graduation. Certifying that you have met all major requirements is the responsibility of your department faculty, who will notify the Office of the Registrar.

If you want to use correspondence study credits from a school other than UAF to satisfy degree requirements, you must have the approval of those courses by the dean of the school or college from which you will graduate; otherwise, you take the risk the courses will not be accepted.

**RESIDENCE CREDIT**

Residence credit is course credit earned through any unit of UAF. Formal classroom instruction, correspondence study, distance-delivered courses, or research at UAF are all considered residence credit. On the other hand, transfer credit, advanced placement credit, credit for prior learning, military service credit and credit granted through nationally prepared examinations are not considered residence credit, nor are credit-by-examination credits earned through locally prepared tests. None of these types of credit can be applied to UAF residency requirements.
Occupational Endorsement Programs

Business, Applied and Accounting, Applied

Occupational Endorsement

The applied business and applied accounting (ABUS) program offers four occupational endorsements. The administrative assistant, financial services representative and the bookkeeping technician occupational endorsements are designed to give students the necessary skills to enter into the job market. The occupational endorsement in supervision and personnel management has been designed for employees who have assumed greater roles in their organizations or are looking to advance their careers. All occupational endorsements are steppingstones to the ABUS certificate and Associate of Applied Science degrees.

Community and Technical College
Applied Business and Accounting (https://www.ctc.uaf.edu/academics/applied-business-accounting/)
907-455-2800

ADMINISTRATIVE ASSISTANT (P. 93)
The administrative assistant occupational endorsement may be earned in one semester and represents a large portion of the course work required for the applied business management certificate. Students must complete all courses with a grade of C- or better to earn the endorsement. Applicants must be 16 years old to be admitted.

BOOKKEEPING TECHNICIAN (P. 94)
The bookkeeping technician occupational endorsement provides students with education and training to qualify for bookkeeper positions in both small and large businesses. The occupational endorsement represents one-half of the credits required for the accounting technician certificate. This program is open to students with a high school diploma or GED. Applicants must be 16 years old to be admitted.

FINANCIAL SERVICES REPRESENTATIVE (P. 96)
The financial services representative program provides education and training to qualify students for customer service and teller positions in banks, credit unions and other financial institutions. This 15-credit occupational endorsement may be earned in one semester and represents half the credits required for the applied business management certificate in finance. Upon completion of the course work, students may enroll in BA F253 for an optional additional 1-3 credits and get practical work experience in a financial institution.

This program is open to students who can document a high school diploma or GED. To be hired in any financial institution, graduates must be able to pass credit and criminal background checks. Applicants must be 16 years old to be admitted.

SUPERVISION AND PERSONNEL MANAGEMENT (P. 102)
The occupational endorsement for supervision and personnel management provides education and training to students to qualify for managerial and supervisory leadership positions in both small and large businesses, government, nonprofit and education settings. This 15-credit occupational endorsement may be earned in one or two semesters and represents a large portion of the education required for the applied business management certificate. Students must complete all courses with a grade of C or better in order to earn the endorsement.

Admission Requirements

Complete the following admission requirements:

- Be at least 16 years old by the first day of the semester in which you are admitted.

Programs

Occupational Endorsement Programs

- Administrative Assistant (p. 93)
- Bookkeeping Technician (p. 94)
- Financial Services Representative (p. 96)
- Supervision and Personnel Management (p. 102)

Health, Allied - Occupational Endorsements

Occupational Endorsements

The occupational endorsements in allied health give students the knowledge and technical skills for employment in health care. Occupational endorsements are available in medical billing (p. 97), medical coding (p. 98), medical office reception (p. 98), medical scribe (p. 99) and nurse aide (p. 100).

Special admission, licensing or certification requirements may apply to students in this program. Applicants should familiarize themselves with these and speak with a faculty advisor if they have any questions or concerns.

Information on any of the allied health programs is available from the Allied Health Division (https://www.ctc.uaf.edu/academics/allied-health/) at the Community and Technical College, PO Box 758040, Fairbanks, AK 99775; by calling 907-455-2822; or by email at fyhealth@uaf.edu.

Community and Technical College
907-455-2800
Allied Health (https://www.ctc.uaf.edu/academics/allied-health/)

MEDICAL BILLING (P. 97) AND MEDICAL CODING (P. 98)
The occupational endorsements in medical billing (p. 97) and medical coding (p. 98) prepare students for employment in medical offices, clinics, hospitals and other medical facilities. Students in the program learn analysis of medical records and the assigning of codes for indexing diagnoses and procedures to provide information for reimbursement purposes.

MEDICAL OFFICE RECEPTION (P. 98)
Students receive education in the theory and skills for both office work and clinical care. Prerequisites for the program include a high school diploma or GED.
MEDICAL SCRIBE (P. 99)
The medical scribe occupational endorsement will prepare students to perform data input related to patient health care records for licensed healthcare providers in a wide variety of medical settings (e.g., hospitals, emergency medicine, primary care, urgent care, among many others). Students will be equipped with skills that maximize the efficiency and productivity of clinical care, enabling real-time clinical documentation and workflow efficiencies for their employers. Students will learn skills to maintain comprehensive and accurate electronic health records. They will be prepared to take the necessary certification exam for the Medical Scribe Certification and Aptitude Test (MSCAT) to acquire the Certified Medical Scribe Specialist (CMSS), a certification recognized by the American College of Medical Scribe Specialists.

NURSE AIDE (P. 100)
The nurse aide occupational endorsement provides education and training to students in theory and basic nursing skills necessary to become efficient and productive health care team members. Students who successfully complete the program will be prepared to sit for the national nurse aide examination for certification. This program is open to those who can document a high school diploma or GED and 10th-grade reading level by exam, or who have the instructor’s permission. Students must also be in good physical condition (capable of repeatedly lifting 50 pounds) and have the following immunizations: hepatitis B full series, two MMRs, chickenpox vaccine (or titer to prove immunity to MMR/chickenpox) and have a negative PPD for tuberculosis within the past year.

PHLEBOTOMY
Training is also available in phlebotomy. UAF does not award degree certificates or endorsements in phlebotomy, but a student who completes the phlebotomy course may sit for national certification through the American Society for Clinical Pathology to become a certified phlebotomy technician. Students wishing to enroll in phlebotomy must have documentation of antibody titer for hepatitis B, current immunizations or titers to measles, mumps, rubella, varicella, flu shot if required by site and a completed two-step PPD (Purified Protein Derivative) for tuberculosis within the past year, prior to registering for the class. Additional immunizations may be necessary as required by the externship site. Students must submit documentation of a background check administered through the Alaska State Troopers with the completed application.

Programs

Occupational Endorsement Programs
- Medical Billing (p. 97)
- Medical Coding (p. 98)
- Medical Office Reception (p. 98)
- Medical Scribe (p. 99)
- Nurse Aide (p. 100)

Paramedic Academy
The paramedic academy prepares students to take the national paramedic exam. A passing score qualifies students to apply for a paramedic license through the Alaska State Medical Board. The paramedic academy offers the highest level of education available to prepare for work in the pre-hospital environment. The most common entry-level positions for paramedics are in an ambulance within an emergency response system or in a nonemergency transport service. Paramedics also work in doctors’ offices, urgent care clinics, hospital emergency rooms, intensive care units, laboratories, aeromedical transport services and safety departments in corporate and industrial settings.

UAF’s paramedic academy offers an intensive three-semester course of full-time study. Students may apply their paramedic course credits to more advanced degrees, including the A.A.S. in emergency services.

The paramedic academy meets or exceeds the national standards curriculum for the EMT-paramedic. During the first two semesters, the student will complete 500 hours of classroom education and 250 hours of clinical experience. The clinical component includes rotations in a hospital setting, including placements in respiratory therapy and in the emergency room, operating room and intensive care unit. In the third semester, the student will complete a field internship outside Alaska with an ambulance company supervised by paramedic field preceptors. During the internship, the student is responsible for all costs of housing, travel and living expenses in addition to tuition and fees.

The paramedic student should be emotionally stable and have good dexterity, agility and physical coordination. Paramedics must also have the strength to lift and carry heavy loads.

Special admission, licensing or certification requirements may apply to students in this program. Applicants should familiarize themselves with these and speak to a faculty advisor if they have questions or concerns.

Community and Technical College
907-455-2800
Paramedic Academy (http://www.ctc.uaf.edu/programs/paramedic/)

Admission Requirements
Complete the following admissions requirements:
- Be at least 18 years old by the first day of the semester in which you are admitted.

Application packets for the paramedic academy can be obtained from the Community and Technical College at 907-455-2853 or jmpepperling@alaska.edu. Applications will be reviewed by the program director and medical director. In keeping with certification requirements, class size is limited to 20 students. Applicants must have a current EMT basic certification (or have completed EMS F170), and have completed HLTH F114.

Program Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>EMS F181</td>
<td>Clinical Rotation I</td>
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<tr>
<td>EMS F183</td>
<td>Clinical Rotation II</td>
<td>4</td>
</tr>
<tr>
<td>EMS F280</td>
<td>Paramedicine I</td>
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</tr>
<tr>
<td>EMS F282</td>
<td>Paramedicine II</td>
<td>12</td>
</tr>
<tr>
<td>EMS F283</td>
<td>Paramedic Internship</td>
<td>12</td>
</tr>
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</table>
**O.E.C., Administrative Assistant Occupational Endorsement**

The administrative assistant occupational endorsement may be earned in one semester and represents a large portion of the course work required for the applied business management certificate. Students must complete all courses with a grade of C- or better to earn the endorsement. Applicants must be 16 years old to be admitted.

Minimum Requirements for Administrative Assistant Occupational Endorsement: 16 credits

Community and Technical College
Applied Business (http://www.ctc.uaf.edu/programs/business-applied/)
907-455-2800

**Admission Requirements**

Complete the following admission requirements:

- Be at least 16 years old by the first day of the semester in which you are admitted.

**Program Requirements**

Students must earn a C grade or better in each course.

**Minimum Requirements for Administrative Assistant Occupational Endorsement: 16 credits**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td></td>
<td><strong>General University Requirements</strong></td>
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<td>Complete the general university requirements. (p. 90)</td>
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<td></td>
<td><strong>Occupational Endorsement Requirements</strong></td>
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<tr>
<td></td>
<td>Complete the occupational endorsement requirements. (p. 90)</td>
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<td></td>
<td><strong>Administrative Assistant Program Requirements</strong></td>
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<tr>
<td>ABUS F102A</td>
<td>Keyboarding: Touch Typing</td>
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<tr>
<td>or ABUS F102C</td>
<td>Keyboarding: Document Formatting</td>
<td></td>
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<tr>
<td>ABUS F154</td>
<td>Human Relations</td>
<td>3</td>
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<tr>
<td>ABUS F170</td>
<td>Business English</td>
<td>3</td>
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<tr>
<td>or ABUS F271</td>
<td>Business Communications</td>
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<tr>
<td>ABUS F182</td>
<td>Office Procedures</td>
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<td>Complete 6 credits from the following:</td>
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<td></td>
<td>ABUS F183</td>
<td>Professional Skills for Job Hunt</td>
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<td></td>
<td>ABUS F199</td>
<td>Practicum in Applied Business</td>
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<td></td>
<td>CIOS F130</td>
<td>Microcomputer Word Processing</td>
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<td></td>
<td>CIOS F135</td>
<td>Microcomputer Spreadsheets</td>
</tr>
<tr>
<td></td>
<td>CIOS F150</td>
<td>Computer Business Applications</td>
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</table>

**O.E.C., Advanced Emergency Medical Technician Occupational Endorsement**

The primary focus of the Advanced Emergency Medical Technician (AEMT) is to provide basic and limited advanced emergency medical care and transportation for critical and emergent patients who access the emergency medical system. This individual possesses the basic knowledge and skills necessary to provide patient care and transportation. Advanced Emergency Medical Technicians function as part of a comprehensive EMS response, under medical oversight. Advanced Emergency Medical Technicians perform interventions with the basic and advanced equipment typically found on an ambulance.

AEMTs are most usually employed in ambulance services, working in conjunction with EMTs and paramedics; however they are also commonly found in fire departments and law enforcement agencies as non-transporting first responders. Ambulances operating at the AEMT level of care are commonplace in rural areas and occasionally found in larger cities as part of a tiered-response system.

Minimum Requirements for Advanced Emergency Medical Technician Occupational Endorsement: 16 credits

Community and Technical College
Paramedicine Program (https://www.ctc.uaf.edu/programs/paramedicine/)
907-455-2800

**Admission Requirements**

Complete the following admission requirements:

- 18 Years of age or older
- State- or federal-issued ID
- Documentation of health insurance
- Documentation of the following immunizations:
  - Hepatitis B
  - Measles - must have two (2) doses of vaccine or a positive titer
  - Mumps – must have two (2) doses of vaccine or a positive titer
  - Rubella – must have one (1) dose of vaccine or a positive titer
  - 2–Step Tuberculosis skin test (current within 1 year of AEMT clinical)
  - Varicella – must have two (2) doses of vaccine or a positive titer
  - Influenza – Must show proof of vaccine to perform clinicals during the flu season

**Program Requirements**

Students must earn a C grade or better in each course.

**Minimum Requirements for Advanced Emergency Medical Technician Occupational Endorsement: 16 credits**

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<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td></td>
<td><strong>General University Requirements</strong></td>
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<tr>
<td></td>
<td>Complete the general university requirements. (p. 90)</td>
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<tr>
<td></td>
<td><strong>Occupational Endorsement Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the occupational endorsement requirements. (p. 90)</td>
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</tr>
<tr>
<td></td>
<td><strong>Advanced Emergency Medical Technician Program Requirements</strong></td>
<td></td>
</tr>
</tbody>
</table>
O.E.C., Bookkeeping Technician

Occupational Endorsement

The bookkeeping technician occupational endorsement provides students with education and training to qualify for bookkeeper positions in both small and large businesses. The occupational endorsement represents one-half of the credits required for the accounting technician certificate. This program is open to students with a high school diploma or GED. Applicants must be 16 years old to be admitted.

Minimum Requirements for Bookkeeping Technician Occupational Endorsement: 15 credits

Community and Technical College
Applied Business and Accounting (http://www.ctc.uaf.edu/programs/abus/)
907-455-2800

Admission Requirements

Complete the following admission requirements:

• Be at least 16 years old by the first day of the semester in which you are admitted.

Program Requirements

Students must earn a C- grade or better in each course.

Minimum Requirements for Bookkeeping Technician Occupational Endorsement: 15 credits

<table>
<thead>
<tr>
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<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>EMS F170</td>
<td>EMT: Emergency Medical Technician I</td>
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<tr>
<td>EMS F270</td>
<td>Advanced Emergency Medical Technician</td>
<td>10</td>
</tr>
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</table>

O.E.C., Carpentry, Basic

Occupational Endorsement

The occupational endorsement in basic carpentry is the beginning for both a career in the construction industry and pursuing a certificate and degree in construction trades technology. Training consists of basic construction safety, introduction to hand and power tools, construction mathematics, floor systems, roof framing, and window and exterior door installation. Students develop a basic understanding of how to communicate, understand, anticipate and complete the work on a construction job site. Applicants must be 16 years old to be admitted.

Minimum Requirements for Basic Carpentry Occupational Endorsement: 14.5 credits

College of Rural Community Development (http://www.uaf.edu/rural/)
907-474-7143

Admission Requirements

Complete the following admission requirements:

• Be at least 16 years old by the first day of the semester in which you are admitted.

Program Requirements

Students must earn a C- grade or better in each course.

Minimum Requirements for Basic Carpentry Occupational Endorsement: 14.5 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>CTT F100</td>
<td>Construction Technology Core</td>
<td>3</td>
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<tr>
<td>or CTT F101 and CTT F102 and CTT F103</td>
<td>Basic Construction Safety and Introduction to Hand and Power Tools and Introduction to Blueprint Reading</td>
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<tr>
<td>CTT F106</td>
<td>Construction Measuring</td>
<td>3</td>
</tr>
<tr>
<td>CTT F110</td>
<td>Residential Carpentry I</td>
<td>8.5</td>
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<tr>
<td>or CTT F111 and CTT F112 and CTT F113 and CTT F114</td>
<td>Materials and Tools Used in the Trade and Floor Systems, Wall and Ceiling Framing and Roof Framing, Windows and Exterior Doors and Introduction to Concrete Materials and Forms</td>
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</tbody>
</table>

O.E.C., Content Creation

Occupational Endorsement

The occupational endorsement in content creation provides education and training to prepare students to enter the online content creation space. Training will emphasize skills needed to develop an online presence, business and self-employment, personal finance, basic computer and peripheral support, troubleshooting, and managing groups of people. Students will be equipped with skill sets enabling them to enter into various digital content creation platforms such as streaming, vlogging and other social media sites with the preparation and principles to run their accounts as an effective business.

Minimum Requirements for Content Creation Occupational Endorsement: 16 credits

College of Rural Community Development (http://www.uaf.edu/rural/)
907-474-7143
Admission Requirements
Complete the following admission requirements:

- Be at least 16 years old by the first day of the semester in which you are admitted.

Program Requirements
Students must earn a C- or better in each course.

Minimum Requirements for Content Creation Occupational Endorsement: 16 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ABUS F189</td>
<td>The Culture and Business of Gaming</td>
<td>3</td>
</tr>
<tr>
<td>BA F151X</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>CITS F203</td>
<td>Information Technology Support Fundamentals</td>
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</tr>
<tr>
<td>COJO F121X</td>
<td>Introduction to Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>COJO F280</td>
<td>Video Storytelling</td>
<td>3</td>
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</tbody>
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Minimum Requirements for Drafting Technology Occupational Endorsement: 18 credits

<table>
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<th>Code</th>
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</thead>
<tbody>
<tr>
<td>CM F102</td>
<td>Methods of Building Construction</td>
<td>3</td>
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<tr>
<td>DRT F140</td>
<td>Architectural Drafting</td>
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</tr>
<tr>
<td>DRT F170</td>
<td>Beginning CAD</td>
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<tr>
<td>DRT F210</td>
<td>Intermediate CAD</td>
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<tr>
<td>CM F123</td>
<td>Codes and Standards</td>
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<tr>
<td>DRT F145</td>
<td>Structural Drafting</td>
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<tr>
<td>DRT F150</td>
<td>Civil Drafting</td>
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<tr>
<td>DRT F155</td>
<td>Mechanical and Electrical Drafting</td>
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<tr>
<td>DSGN F130</td>
<td>Modeling, Assembly &amp; 3D Animation: Autodesk Inventor</td>
<td></td>
</tr>
</tbody>
</table>

O.E.C., Facility Maintenance

Occupational Endorsement
The facility maintenance program trains participants in dealing with challenges unique to rural Alaska structures. Training consists of identifying, troubleshooting and customizing solutions to a building or home, learning the importance of working with community advocates, tracking and analyzing past maintenance trends, and developing strategies for future maintenance needs.

Minimum Requirements for Facility Maintenance Occupational Endorsement: 18 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CM F123</td>
<td>Codes and Standards</td>
<td></td>
</tr>
<tr>
<td>DRT F145</td>
<td>Structural Drafting</td>
<td></td>
</tr>
<tr>
<td>DRT F150</td>
<td>Civil Drafting</td>
<td></td>
</tr>
<tr>
<td>DRT F155</td>
<td>Mechanical and Electrical Drafting</td>
<td></td>
</tr>
<tr>
<td>DSGN F130</td>
<td>Modeling, Assembly &amp; 3D Animation: Autodesk Inventor</td>
<td></td>
</tr>
</tbody>
</table>

Admission Requirements
Complete the following admission requirements:

- Be at least 16 years old by the first day of the semester in which you are admitted.

Program Requirements
Students must earn a C grade or better in each course.

Minimum Requirements for Facility Maintenance Occupational Endorsement: 18 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Codes and Standards</td>
<td></td>
</tr>
<tr>
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<td></td>
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<tr>
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</tr>
<tr>
<td>DSGN F130</td>
<td>Modeling, Assembly &amp; 3D Animation: Autodesk Inventor</td>
<td></td>
</tr>
</tbody>
</table>

O.E.C., Drafting Technology

Occupational Endorsement
The occupational endorsement for drafting technician provides education and training to students to qualify for entry level drafting and construction documentation preparation. This 18-credit occupational endorsement may be earned in two semesters and represents a significant portion of the education required for the drafting technology certificate. Students must complete all courses with a grade of C or better in order to earn the endorsement.

This program is open to those who have completed the university application process.

An occupational endorsement, utilizing existing drafting technology (DRT) and construction management (CM) courses to credential individuals with entry-level training that will get their foot in the door with prospective employers.

Minimum Requirements for Drafting Technology Occupational Endorsement: 18 credits

Community and Technical College
Drafting/Design Technology (http://www.ctc.uaf.edu/programs/drafting/)
907-455-2800

Admission Requirements
Students must have completed the university application process.

Program Requirements
Students must earn a C grade or better in each course.
Complete the occupational endorsement requirements. (p. 90)

**Facility Maintenance Program Requirements**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CTT F100</td>
<td>Construction Technology Core</td>
<td>3</td>
</tr>
<tr>
<td>or CTT F101 and CTT F102 and CTT F103 and CTT F106 and CTT F131 and CTT F133 and CTT F135 and CTT F137 and CTT F138 and CTT F141 and CTT F153</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Basic Construction Safety and Introduction to Hand and Power Tools and Introduction to Blueprint Reading</td>
<td></td>
</tr>
</tbody>
</table>

Minimum Requirements for Financial Services Representative Occupational Endorsement: 15 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General University Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (p. 90)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Occupational Endorsement Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the occupational endorsement requirements. (p. 90)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Financial Services Representative Program Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ABUS F154 Customer Service</td>
<td>3</td>
</tr>
<tr>
<td>or ABUS F175 Business Math (or MATH F100-level or above)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ABUS F155 Financial Management</td>
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</tr>
<tr>
<td></td>
<td>Complete 6 credits from the following:</td>
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</tr>
<tr>
<td></td>
<td>ABUS F160 Principles of Banking</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ABUS F161 Personal and Business Finance</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ABUS F234 Introduction to Investing</td>
<td></td>
</tr>
</tbody>
</table>

O.E.C., Financial Services Representative

**Occupational Endorsement**

The financial services representative program provides education and training to qualify students for customer service and teller positions in banks, credit unions and other financial institutions. This 15-credit occupational endorsement may be earned in one semester and represents half the credits required for the applied business management certificate in finance. Upon completion of the course work, students may enroll in BA F253 for an optional additional 1-3 credits and get practical work experience in a financial institution.

This program is open to students who can document a high school diploma or GED. To be hired in any financial institution, graduates must be able to pass credit and criminal background checks. Applicants must be 16 years old to be admitted.

Minimum Requirements for Financial Services Representative Occupational Endorsement: 15 credits

Community and Technical College
Applied Business and Accounting (http://www.ctc.uaf.edu/abus/)
907-455-2800

**Admission Requirements**

Complete the following admission requirements:

- Be at least 16 years old by the first day of the semester in which you are admitted.

**Program Requirements**

Students must earn a C- grade or better in each course.

O.E.C., Homeland Security

**ADMISSION TO THIS PROGRAM IS CURRENTLY SUSPENDED.**

**Occupational Endorsement**

The occupational endorsement in homeland security provides the basic academic preparation and sought-after critical thinking skills necessary for mid-level careers in the TSA agency or homeland security field while also serving as a stepping stone into a homeland security and emergency management-related degree programs such as the HSEM bachelor’s degree at SOM. Applicants must be 18 years old to be admitted.

Minimum Requirements for Homeland Security Occupational Endorsement: 12 credits

School of Management
907-474-7461

**Admission Requirements**

ADMISSION TO THIS PROGRAM IS CURRENTLY SUSPENDED.

Complete the following admission requirements:

- Be at least 18 years old by the first day of the semester in which you are admitted.
Program Requirements
Admission to this program is currently suspended.

Minimum Requirements for Homeland Security Occupational Endorsement: 12 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General University Requirements</td>
<td>Complete the general university requirements. (p. 90)</td>
<td></td>
</tr>
<tr>
<td>Occupational Endorsement Requirements</td>
<td>Complete the occupational endorsement requirements. (p. 90)</td>
<td></td>
</tr>
<tr>
<td>HSEM F120</td>
<td>Introduction to Emergency Management</td>
<td>3</td>
</tr>
<tr>
<td>or HSEM F121</td>
<td>Introduction to Homeland Security</td>
<td></td>
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<tr>
<td>Complete at least 9 credits from the following:</td>
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<td>9</td>
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<tr>
<td>HSEM F223</td>
<td>Terrorism: A Global Threat</td>
<td></td>
</tr>
<tr>
<td>HSEM F225</td>
<td>Intelligence Analysis and Security Management</td>
<td></td>
</tr>
<tr>
<td>HSEM F227</td>
<td>Transportation and Border Security</td>
<td></td>
</tr>
<tr>
<td>HSEM F231</td>
<td>The Threat of Weapons of Mass Destruction</td>
<td></td>
</tr>
<tr>
<td>HSEM F233</td>
<td>Critical Infrastructure Protection</td>
<td></td>
</tr>
</tbody>
</table>

O.E.C., Law Enforcement Academy
Occupational Endorsement; Alaska Police Standards Council Certification

The law enforcement academy prepares students for a career in law enforcement in the state of Alaska. APSC certification will allow a qualified candidate to work as a commissioned officer in any of approximately 65 state and municipal law enforcement organizations.

The law enforcement academy is an intense semester of full-time study. Students attend class 40 hours per week for one semester. The certification is approved by the Alaska Police Standards Council in compliance with Title 13.85.050 of the Alaska Administrative Code. Courses are not offered separately but must be taken as part of the entire law enforcement academy package.

Special admission, licensing or certification requirements may apply to students in this program. Applicants should familiarize themselves with these and speak with a faculty advisor if they have any questions or concerns. Applicants must be 21 years old to be admitted.

Minimum Requirements for Law Enforcement Occupational Endorsement: 17 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>General University Requirements</td>
<td>Complete the general university requirements. (p. 90)</td>
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<td>Occupational Endorsement Requirements</td>
<td>Complete the occupational endorsement requirements. (p. 90)</td>
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<tr>
<td>LE F110</td>
<td>Cultural and Behavioral Strategies for Law Enforcement Officers</td>
<td>1</td>
</tr>
<tr>
<td>LE F115</td>
<td>Enforcement Skills for Law Enforcement Officers</td>
<td>4</td>
</tr>
<tr>
<td>LE F120</td>
<td>Law Enforcement Operations</td>
<td>4</td>
</tr>
<tr>
<td>LE F125</td>
<td>Basic Police Procedures</td>
<td>4</td>
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<tr>
<td>LE F205</td>
<td>Criminal Law for Police</td>
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</table>

O.E.C., Medical Billing
Occupational Endorsement

The occupational endorsements in medical billing and medical coding prepare students for employment in medical offices, clinics, hospitals and other medical facilities. Students in the program learn analysis of medical records and the assigning of codes for indexing diagnoses and procedures to provide information for reimbursement purposes.

Information on any of the allied health programs is available from the allied health division (https://www.ctc.uaf.edu/academics/allied-health/) at the Community and Technical College, PO Box 758040, Fairbanks, AK 99775; by calling 907-455-2822; or by email at fyhealth@uaf.edu.

Minimum Requirements for Medical Billing Occupational Endorsement: 12 credits

<table>
<thead>
<tr>
<th>Code</th>
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</thead>
<tbody>
<tr>
<td>Community and Technical College</td>
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<td></td>
</tr>
<tr>
<td>Law Enforcement (<a href="http://www.ctc.uaf.edu/programs/lawacad/">http://www.ctc.uaf.edu/programs/lawacad/</a>)</td>
<td></td>
<td>907-455-2800</td>
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</table>

O.E.C., Medical Billing
Occupational Endorsement

Admission Requirements
Complete the following admission requirements:

• Be at least 16 years old by the first day of the semester in which you are admitted.

Program Requirements
Students must earn a C- or better in each course.
Minimum Requirements for Medical Billing Occupational Endorsement: 12 credits

<table>
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<tr>
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<td></td>
<td>Medical Billing Program Requirements</td>
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<tr>
<td>CIOS F150</td>
<td>Computer Business Applications (or documentation of computer skills and approved elective)</td>
<td>3</td>
</tr>
<tr>
<td>or HLTH F130</td>
<td>Medical Office Technology</td>
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</tr>
<tr>
<td>HLTH F100</td>
<td>Medical Terminology</td>
<td>3</td>
</tr>
<tr>
<td>HLTH F236</td>
<td>Outpatient Health Care Reimbursement</td>
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<tr>
<td>HLTH F237</td>
<td>Inpatient Health Care Reimbursement</td>
<td>3</td>
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</tbody>
</table>

O.E.C., Medical Coding

OCCUPATIONAL ENDORSEMENT

The occupational endorsements in medical billing and medical coding prepare students for employment in medical offices, clinics, hospitals and other medical facilities. Students in the program learn analysis of medical records and the assigning of codes for indexing diagnoses and procedures to provide information for reimbursement purposes.

Information on any of the allied health programs is available from the allied health division (https://www.ctc.uaf.edu/academics/allied-health/) at the Community and Technical College, PO Box 758040, Fairbanks, AK 99775; by calling 907-455-2822; or by email at fyhealth@uaf.edu.

Minimum Requirements for Medical Coding Occupational Endorsement: 15 credits

Community and Technical College
907-455-2800
Allied Health (https://www.ctc.uaf.edu/academics/allied-health/)

Admission Requirements

Complete the following admission requirements:

- Be at least 16 years old by the first day of the semester in which you are admitted.

Program Requirements

Students must earn a C- or better in each course.

Minimum Requirements for Medical Coding Occupational Endorsement: 15 credits

<table>
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<tr>
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<td></td>
<td>Medical Coding Occupational Endorsement Program Requirements</td>
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<td>CIOS F150</td>
<td>Computer Business Applications (or documentation of computer skills and approved elective)</td>
<td>3</td>
</tr>
<tr>
<td>or HLTH F130</td>
<td>Medical Office Technology</td>
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<tr>
<td>HLTH F100</td>
<td>Medical Terminology</td>
<td>3</td>
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<tr>
<td>HLTH F208</td>
<td>Human Diseases</td>
<td>3</td>
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<tr>
<td>HLTH F238</td>
<td>Medical Coding I</td>
<td>3</td>
</tr>
<tr>
<td>HLTH F239</td>
<td>Medical Coding II</td>
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</table>

1 Must complete HLTH F238 and HLTH F239 with a B grade or better.

O.E.C., Medical Office Reception

Occupational Endorsement

Students in the medical office reception program receive education in the theory and skills for both office work and clinical care. Prerequisites for the program include a high school diploma or GED.

Information on any of the allied health programs is available from the allied health division (https://www.ctc.uaf.edu/academics/allied-health/) at the Community and Technical College, PO Box 758040, Fairbanks, AK 99775; by calling 907-455-2822; or by email at fyhealth@uaf.edu.

Minimum Requirements for Medical Office Reception Occupational Endorsement: 13 credits

Community and Technical College
907-455-2800
Allied Health (https://www.ctc.uaf.edu/academics/allied-health/)

Admission Requirements

Prerequisites for the program include a high school diploma or GED.

Program Requirements

Students must earn a C- or better in each course.

Minimum Requirements for Medical Office Reception Occupational Endorsement: 13 credits

<table>
<thead>
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<tr>
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<td>General University Requirements</td>
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<tr>
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<td>Occupational Endorsement Requirements</td>
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<td></td>
<td>Medical Office Reception Program Requirements</td>
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<tr>
<td>CIOS F150</td>
<td>Computer Business Applications (or documentation of computer skills and approved elective)</td>
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</tr>
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<td>HLTH F100</td>
<td>Medical Terminology</td>
<td>3</td>
</tr>
<tr>
<td>HLTH F110</td>
<td>Professional Skills for the Workplace</td>
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</tr>
<tr>
<td>HLTH F118</td>
<td>Medical Law and Ethics</td>
<td>2</td>
</tr>
</tbody>
</table>
O.E.C., Medical Scribe Occupational Endorsement

The medical scribe occupational endorsement will prepare students to perform data input related to patient health care records for licensed healthcare providers in a wide variety of medical settings (e.g., hospitals, emergency medicine, primary care, urgent care, among many others). Students will be equipped with skills that maximize the efficiency and productivity of clinical care, enabling real-time clinical documentation and workflow efficiencies for their employers. Students will learn skills to maintain comprehensive and accurate electronic health records. They will be prepared to take the necessary certification exam for the Medical Scribe Certification and Aptitude Test (MSCAT) to acquire the Certified Medical Scribe Specialist (CMSS), a certification recognized by the American College of Medical Scribe Specialists.

Information on any of the allied health programs is available from the allied health division (https://www.ctc.uaf.edu/academics/allied-health/) at the Community and Technical College, PO Box 758040, Fairbanks, AK 99775; by calling 907-455-2822; or by email at fyhealth@uaf.edu.

Minimum Requirements for Medical Scribe Occupational Endorsement: 29 credits

社区和技术学院
907-455-2800

Admission Requirements

Prerequisites:

- High school graduation or GED; ALEKS placement into HLTH F116; Accuplacer placement into or completion of WRTG F110; or permission of instructor.
- Student must be in good physical condition and have documentation of the following immunizations: two varicella, two MMR, three Hepatitis B vaccines and a two-step PPD within previous 12 months or titers to prove immunity to above diseases.

Complete the following admission requirements:

- Be at least 18 years old by the first day of the semester in which you are admitted.
- Students should complete the UAF application process.
- Complete FAFSA for financial aid, if needed.
- To be ready for admittance, students should have appropriate keyboarding experience, or have taken ABUS F102A or ABUS F102B.

Program Requirements

Students must earn a C- grade or better in each course.

Minimum Requirements for Medical Scribe Occupational Endorsement: 29 credits

To be ready for admittance, students should have appropriate keyboarding experience or have taken ABUS F102B: Keyboarding Skill Building, for 1-3 credits, or have passed a keyboarding skills test prior to acceptance into the program.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Medical Terminology</td>
<td>3</td>
</tr>
<tr>
<td>HLTH F114</td>
<td>Fundamentals of Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>HLTH F122</td>
<td>First Aid and CPR for the Health Care Provider</td>
<td>0</td>
</tr>
<tr>
<td>HLTH F124</td>
<td>Introduction to Medical Scribe Specialist</td>
<td>2</td>
</tr>
<tr>
<td>HLTH F126</td>
<td>Administrative Procedures for the Healthcare Worker</td>
<td>3</td>
</tr>
<tr>
<td>HLTH F130</td>
<td>Medical Office Technology</td>
<td>3</td>
</tr>
<tr>
<td>CIOS F150</td>
<td>Computer Business Applications</td>
<td>1</td>
</tr>
<tr>
<td>MA F247</td>
<td>Introduction to Pharmacology</td>
<td>2</td>
</tr>
<tr>
<td>HLTH F235</td>
<td>Medical Coding</td>
<td>4</td>
</tr>
<tr>
<td>HLTH F260</td>
<td>Medical Scribe Specialist Practicum</td>
<td>2</td>
</tr>
</tbody>
</table>

Note: Students should complete 3 credits for CIOS F150.

O.E.C., Mining Mill Operations

Overview

Occupational Endorsement

The occupational endorsement in mining mill operations provides education and training in the skills and knowledge required of a mining mill operator.

Minimum Requirements for Mining Mill Operations Occupational Endorsement: 17 credits

Community and Technical College Process Technology (https://www.ctc.uaf.edu/programs/process-technology/)
907-455-2800

Admission Requirements

This program is open to those who have a high school diploma or GED.

Program Requirements

Students must earn a C- grade or better in each course.

Minimum Requirements for Mining Mill Operations Occupational Endorsement: 17 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLTH F100</td>
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<td>3</td>
</tr>
<tr>
<td>HLTH F114</td>
<td>Fundamentals of Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>HLTH F122</td>
<td>First Aid and CPR for the Health Care Provider</td>
<td>0</td>
</tr>
<tr>
<td>HLTH F124</td>
<td>Introduction to Medical Scribe Specialist</td>
<td>2</td>
</tr>
<tr>
<td>HLTH F126</td>
<td>Administrative Procedures for the Healthcare Worker</td>
<td>3</td>
</tr>
<tr>
<td>HLTH F130</td>
<td>Medical Office Technology</td>
<td>3</td>
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<tr>
<td>CIOS F150</td>
<td>Computer Business Applications</td>
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<tr>
<td>MA F247</td>
<td>Introduction to Pharmacology</td>
<td>2</td>
</tr>
<tr>
<td>HLTH F235</td>
<td>Medical Coding</td>
<td>4</td>
</tr>
<tr>
<td>HLTH F260</td>
<td>Medical Scribe Specialist Practicum</td>
<td>2</td>
</tr>
</tbody>
</table>

Note: See your advisor if you are not sure which catalog year to use.
O.E.C., Nurse Aide

Occupational Endorsement

The nurse aide occupational endorsement provides education and training to students in theory and basic nursing skills necessary to become efficient and productive health care team members. Students who successfully complete the program will be prepared to sit for the national nurse aide examination for certification. This program is open to those who can document a high school diploma or GED and 10th-grade reading level by exam, or who have the instructor’s permission. Students must also be in good physical condition (capable of repeatedly lifting 50 pounds) and have the following immunizations: hepatitis B full series, two MMRs, chickenpox vaccine (or titer to prove immunity to MMR/chickenpox) and have a negative PPD for tuberculosis within the past year.

Information on any of the allied health programs is available from the allied health division (https://www.ctc.uaf.edu/academics/allied-health/) at the Community and Technical College, PO Box 758040, Fairbanks, AK 99775; by calling 907-455-2822; or by email at fyhealth@uaf.edu.

Minimum Requirements for Nurse Aide Occupational Endorsement: 9 credits

Community and Technical College
907-455-2800
Allied Health (https://www.ctc.uaf.edu/academics/allied-health/)

Admission Requirements

Complete the following admission requirements:

• Be at least 16 years old by the first day of the semester in which you are admitted.

Program Requirements

Students must earn a C- or better in each course.

Minimum Requirements for Nurse Aide Occupational Endorsement: 9 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>HLTH F107</td>
<td>Nurse Aide Training</td>
<td>9</td>
</tr>
<tr>
<td>or HLTH F111 and HLTH F113</td>
<td>Personal Care Attendant Training and Personal Care Attendant to Nursing Assistant Bridge</td>
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</tr>
</tbody>
</table>

O.E.C., Rural Human Services

Occupational Endorsement

The rural human services program is designed to develop strong and healthy rural Alaska Native individuals, families and communities. The program provides entry-level training and education for students preparing for careers as natural helpers/healers in village-based public, private and volunteer human service organizations.

The endorsement meets the training requirements for Behavioral Health Aide I credentials as developed by the Alaska Native Tribal Health Consortium. The occupational endorsement program directly parallels the entry-level competencies training required under these systems.

Admission is open to anyone employed by a regional Native health corporation or local entity providing village-based human services, or to individuals recognized by their communities as natural helpers/healers. A high school diploma or GED and/or previous training or work experience in the delivery of village-based human services are recommended but not required.

This program is delivered collaboratively within the UA system. Applicants must be 18 years old to be admitted.

Minimum Requirements for Rural Human Services Behavioral Health Aide Occupational Endorsement: 16 credits

College of Rural and Community Development
Rural Human Services (http://www.uaf.edu/rhs/)
907-474-7143

Admission Requirements

Complete the following admission requirements:

• Be at least 18 years old by the first day of the semester in which you are admitted.

Program Requirements

Students must earn a C- grade or better in each course.

Minimum Requirements for Rural Human Services Behavioral Health Aide Occupational Endorsement: 16 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RHS F110</td>
<td>Cross-cultural Bridging Skills</td>
<td>1</td>
</tr>
</tbody>
</table>
RHS F115  Issues of Personal Development  2
RHS F120  Family Systems I  2
RHS F130  Processes of Community Change  2
RHS F140  Alaska Native Values and Principles  1
RHS F150  Introduction to Rural Counseling  2
RHS F260  Addictions: Intervention and Treatment  2
RHS F275  Introduction to Recovery and Mental Illness  2
RHS F285  Case Management  2

Note: See your advisor if you are not sure which catalog year to use.

O.E.C., Rural Surface Water Quality Testing

Occupational Endorsement

This program provides education and training to conduct water quality monitoring and assessment by developing and following a Quality Assurance Project Plan. Course work focuses on issues related to rural Alaska communities and provides basic academic preparation for entry-level water quality technician careers. Students gain a foundation of knowledge that prepares them to continue into science and engineering-related certificate, associate or baccalaureate programs.

Minimum Requirements for Rural Surface Water Quality Testing Occupational Endorsement: 9 credits

College of Rural and Community Development (http://www.uaf.edu/rural/)
907-474-7143

Admission Requirements

Admission is open to students with a high school diploma or GED.

Program Requirements

Students must earn a C- grade or better in each course.

Minimum Requirements for Rural Surface Water Quality Testing Occupational Endorsement: 9 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General University Requirements</td>
<td>Complete the general university requirements. (p. 90)</td>
<td></td>
</tr>
<tr>
<td>Occupational Endorsement Requirements</td>
<td>Complete the occupational endorsement requirements. (p. 90)</td>
<td></td>
</tr>
<tr>
<td>Rural Surface Water Quality Testing Program Requirements</td>
<td>Complete the following:</td>
<td></td>
</tr>
<tr>
<td>ABUS F183</td>
<td>Professional Skills for Job Hunt</td>
<td>1-3</td>
</tr>
<tr>
<td>CIOS F150</td>
<td>Computer Business Applications</td>
<td>1-3</td>
</tr>
<tr>
<td>ENVI F101</td>
<td>Introduction to Environmental Science</td>
<td>3</td>
</tr>
<tr>
<td>ENVI F110</td>
<td>Introduction to Water Quality I: Measurement</td>
<td>1</td>
</tr>
<tr>
<td>ENVI F111</td>
<td>Introduction to Water Quality II: Monitoring and Assessment</td>
<td>1</td>
</tr>
</tbody>
</table>

ENVI F112  Introduction to Water Quality III: Data Quality Assurance  1
ENVI F160  Internship in Environmental Studies  1-2

O.E.C., Rural Utilities Business Management

Occupational Endorsement

The occupational endorsement in rural utility business management provides education and training in theory and skills for the sustained operation of rural water and wastewater utilities. The program is open to all individuals who wish to apply, with the recommendation that they have a high school diploma or GED. It is designed to serve the needs of rural Alaskans who are employed by a rural sanitation utility or nominated by any of the following: a rural sanitation utility, State of Alaska RUBM program manager or Alaska Native tribal health corporation. Applicants must be 16 years old to be admitted.

Minimum Requirements for Rural Utilities Business Management Occupational Endorsement: 12 credits

College of Rural and Community Development (http://www.uaf.edu/rural/)
907-474-7143

Admission Requirements

Complete the following admissions requirement:

- Be at least 16 years old by the first day of the semester in which you are admitted.

Program Requirements

Students must earn a C- or better in each course.

Minimum Requirements for Rural Utilities Business Management Occupational Endorsement: 12 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General University Requirements</td>
<td>Complete the general university requirements. (p. 90)</td>
<td></td>
</tr>
<tr>
<td>Occupational Endorsement Requirements</td>
<td>Complete the occupational endorsement requirements. (p. 90)</td>
<td></td>
</tr>
<tr>
<td>Rural Utilities Business Management Program Requirements</td>
<td>Complete the following:</td>
<td></td>
</tr>
<tr>
<td>TM F130</td>
<td>Introduction to Utility Management</td>
<td>2</td>
</tr>
<tr>
<td>TM F131</td>
<td>Organizational Management for Utilities</td>
<td>2</td>
</tr>
<tr>
<td>TM F132</td>
<td>Operations Management for Utilities</td>
<td>2</td>
</tr>
<tr>
<td>TM F134</td>
<td>Financial Management for Utilities</td>
<td>2</td>
</tr>
<tr>
<td>TM F136</td>
<td>Personnel Management for Utilities</td>
<td>2</td>
</tr>
<tr>
<td>TM F138</td>
<td>Planning for Utilities</td>
<td>2</td>
</tr>
</tbody>
</table>
O.E.C., Rural Waste Management and Spill Response

Occupational Endorsement

The occupational endorsement in rural waste management and spill response provides education and training in how to handle management municipal waste. Emphasis is placed upon providing students with the skills and experience necessary to implement solutions to challenging solid waste stream issues facing rural waste managers. The program introduces students to best practices in waste management that are in compliance with state and federal governmental regulations. Exceptional focus is placed on workplace safety and students are assessed on proficiency in operational safety and safety planning. Upon completion of the occupational endorsement, students will be prepared to help protect rural communities from many of the environmental risks associated with waste disposal by safely managing municipal solid and hazardous waste streams.

Minimum Requirements for Rural Waste Management Spill Response Occupational Endorsement: 10 credits

College of Rural and Community Development (http://www.uaf.edu/rural/)
Bristol Bay Campus
907-842-5109

Admission Requirements
Complete the following admission requirements:

• Be at least 16 years old by the first day of the semester in which you are admitted.

Program Requirements
Students must earn a C- grade or better in each course.

Minimum Requirements for Rural Waste Management Spill Response Occupational Endorsement: 10 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABUS F130</td>
<td>Introduction to Facility Maintenance</td>
<td></td>
</tr>
<tr>
<td>ENVI F130</td>
<td>Introduction to the National Environmental Policy Act</td>
<td></td>
</tr>
<tr>
<td>ENVI F160</td>
<td>Internship in Environmental Studies</td>
<td></td>
</tr>
<tr>
<td>ENVI F260</td>
<td>Field Techniques for Environmental Technicians</td>
<td></td>
</tr>
<tr>
<td>HLTH F122</td>
<td>First Aid and CPR for the Health Care Provider</td>
<td></td>
</tr>
<tr>
<td>RD F250</td>
<td>Grant Writing for Community Development</td>
<td></td>
</tr>
<tr>
<td>TM F130</td>
<td>Introduction to Utility Management</td>
<td></td>
</tr>
</tbody>
</table>

Advisor-approved elective

O.E.C., Supervision and Personnel Management

Occupational Endorsement

The occupational endorsement for supervision and personnel management provides education and training to students to qualify for managerial and supervisory leadership positions in both small and large businesses, government, nonprofit and education settings. This 15-credit occupational endorsement may be earned in one or two semesters and represents a large portion of the education required for the applied business management certificate. Students must complete all courses with a grade of C or better in order to earn the endorsement.

Minimum Requirements for Supervision and Personnel Management Occupational Endorsement: 15 credits

Community and Technical College
Applied Business (https://www.ctc.uaf.edu/programs/business-applied/)
907-455-2800

Admission Requirements
This program is open to those who have completed the university application process.

Program Requirements
Students must earn a C grade or better in each course.

Minimum Requirements for Supervision and Personnel Management Occupational Endorsement: 15 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABUS F154</td>
<td>Human Relations</td>
<td>3</td>
</tr>
<tr>
<td>ABUS F179</td>
<td>Fundamentals of Supervision</td>
<td>3</td>
</tr>
<tr>
<td>ABUS F231</td>
<td>Introduction to Personnel ¹</td>
<td>3</td>
</tr>
<tr>
<td>ABUS F232</td>
<td>Contemporary Management Issues</td>
<td>3</td>
</tr>
</tbody>
</table>

¹ Not verified
ABUS F242 Employment Law 3

ABUS F231 is a variable credit course. Students must take a total of 3 credits.

O.E.C., Sustainable Energy Occupational Endorsement

Providing education and training in energy efficiency and renewable energy, the sustainable energy occupational endorsement addresses many of the energy issues that influence Alaska communities and provides the basic academic preparation for entry-level sustainable energy careers. It also serves as a steppingstone into science- and engineering-related certificate, associate or bachelor's programs.

The program is structured as 6 credits of foundation knowledge and a minimum of 6 credit electives that allow students (in consultation with their advisor) to specialize in specific areas of sustainable energy. Some examples of how the electives can be formed into specific areas of study follow. Applicants must be 16 years old to be admitted.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVI F101</td>
<td>Introduction to Environmental Science</td>
<td>3</td>
</tr>
<tr>
<td>PHYS F102X</td>
<td>Energy and Society</td>
<td>4</td>
</tr>
<tr>
<td>CTT F100</td>
<td>Construction Technology Core</td>
<td>3</td>
</tr>
<tr>
<td>CTT F160</td>
<td>Photovoltaic Systems I</td>
<td>5</td>
</tr>
<tr>
<td>CTT F161</td>
<td>Photovoltaic Systems II</td>
<td>5</td>
</tr>
<tr>
<td>CTT F100</td>
<td>Construction Technology Core</td>
<td>3</td>
</tr>
<tr>
<td>CTT F250</td>
<td>Current Topics in Construction Trades</td>
<td>2</td>
</tr>
<tr>
<td>ENVI F120</td>
<td>Home Energy Basics</td>
<td>1</td>
</tr>
<tr>
<td>CTT F100</td>
<td>Construction Technology Core</td>
<td>3</td>
</tr>
<tr>
<td>CTT F250</td>
<td>Current Topics in Construction Trades</td>
<td>1-3</td>
</tr>
<tr>
<td>ENVI F120</td>
<td>Home Energy Basics</td>
<td>1</td>
</tr>
<tr>
<td>CTT F100</td>
<td>Construction Technology Core</td>
<td>3</td>
</tr>
<tr>
<td>CT S201</td>
<td>Cold Climate Construction</td>
<td>1</td>
</tr>
<tr>
<td>CT S201</td>
<td>Cold Climate Construction</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td>Other areas of study related to sustainable energy</td>
<td>1</td>
</tr>
</tbody>
</table>

Minimum Requirements for Sustainable Energy Occupational Endorsement: 12 credits

College of Rural and Community Development (http://www.uaf.edu/rural/)
907-474-7143

Admission Requirements

Complete the following admission requirements:

- Be at least 16 years old by the first day of the semester in which you are admitted.

Program Requirements

Students must earn a C- or better in each course.

Minimum Requirements for Sustainable Energy Occupational Endorsement: 12 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVI F220</td>
<td>Introduction to Sustainable Energy</td>
<td>3</td>
</tr>
<tr>
<td>CTT F106</td>
<td>Construction Measuring</td>
<td>3</td>
</tr>
<tr>
<td>MATH F105</td>
<td>Intermediate Algebra</td>
<td></td>
</tr>
<tr>
<td>TTCH F131</td>
<td>Mathematics for the Trades</td>
<td></td>
</tr>
</tbody>
</table>

Electives

Complete 6 credits from the following:

- CT S201 Cold Climate Construction 1
- CTT F100 Construction Technology Core
- CTT F160 Photovoltaic Systems I
- CTT F161 Photovoltaic Systems II
- CTT F250 Current Topics in Construction Trades
- ENVI F201 Introduction to Environmental Science
- ENVI F210 Home Energy Basics
- ENVI F211 Building Ventilation and Energy
- ENVI F212 Energy Efficient Building Design and Simulation
- PHYS F102X Energy and Society
- RE A110 Introduction to Solar Photovoltaic Systems 2
- RE A130 Introduction to Small Wind Systems 2
- RE A150 Basics of Ground-Source Heat Pump Systems 2

or other, advisor-approved electives

1 CT S201 is offered by the University of Alaska Southeast.
2 RE A110, RE A130 and RE A150 are offered by the University of Alaska Anchorage.

O.E.C., Tribal Justice Occupational Endorsement

The occupational endorsement in tribal justice provides education specific to tribal courts and tribal justice in Alaska, preparing tribal court judges, clerks and administrators for employment in the tribal justice field. The endorsement also provides a pathway for continuing education for tribal justice professionals in Alaska. Applicants must be 16 years old to be admitted.
Minimum Requirements for Tribal Justice Occupational Endorsement: 9 credits

College of Rural and Community Development
Tribal Management Program (http://tribal.uaf.edu/)
907-474-7143

Admission Requirements
Complete the following admissions requirement:

• Be at least 16 years old by the first day of the semester in which you are admitted.

Program Requirements
Students must earn a C- grade or better in each course.

Minimum Requirements for Tribal Justice Occupational Endorsement: 9 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TM F110</td>
<td>Tribal Court Development for Alaska Tribes</td>
<td>1</td>
</tr>
<tr>
<td>TM F111</td>
<td>Children's Topics in Tribal Justice</td>
<td>1</td>
</tr>
<tr>
<td>TM F112</td>
<td>Federal Indian Law for Alaska Tribes</td>
<td>1</td>
</tr>
<tr>
<td>TM F113</td>
<td>Tribal Code Development</td>
<td>1</td>
</tr>
<tr>
<td>TM F114</td>
<td>Tribal Justice Responses to Community and Domestic Violence</td>
<td>1</td>
</tr>
<tr>
<td>TM F115</td>
<td>Tribal Court Administration</td>
<td>1</td>
</tr>
<tr>
<td>TM F116</td>
<td>Juvenile Justice in Tribal Court</td>
<td>1</td>
</tr>
<tr>
<td>TM F117</td>
<td>Tribal Court Enforcement of Decisions</td>
<td>1</td>
</tr>
<tr>
<td>TM F118</td>
<td>Tribal Community and Restorative Justice</td>
<td>1</td>
</tr>
</tbody>
</table>

O.E.C., Welding, Entry-level Occupational Endorsement

The entry-level welding occupational endorsement provides training to succeed in the structural welding industry and to pass the American Welding Society test, used as an industry standard. The program also covers the safety requirements and mathematics needed in this high-demand occupation. Applicants must be 16 years old to be admitted.

Minimum Requirements for Entry-Level Welding Occupational Endorsement: 24 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TTCH F131</td>
<td>Mathematics for the Trades</td>
<td>3</td>
</tr>
<tr>
<td>WMT F103</td>
<td>Welding I</td>
<td>3</td>
</tr>
<tr>
<td>WMT F105</td>
<td>Welding II</td>
<td>3</td>
</tr>
<tr>
<td>WMT F130</td>
<td>Shielded Metal Arc Welding</td>
<td>3</td>
</tr>
<tr>
<td>WMT F140</td>
<td>Metal Fabrication</td>
<td>3</td>
</tr>
<tr>
<td>WMT F150</td>
<td>Gas Tungsten Arc Welding</td>
<td>3</td>
</tr>
<tr>
<td>WMT F160</td>
<td>Gas Metal Arc Welding</td>
<td>3</td>
</tr>
<tr>
<td>WMT F290</td>
<td>Welding Proficiency Maintenance</td>
<td>3</td>
</tr>
</tbody>
</table>

O.E.C., Wildland Fire Science Occupational Endorsement

The wildland fire science occupational endorsement provides students with the knowledge and skills to perform at the first level of wildland fire management. This includes managing a squad on a wildland fire crew, correct methods of operation for wildland fire chainsaws and pumps, and working around fire helicopters and aircraft. Completion of this program can lead to employment in the field, provide a foundation for wildland fire management, including in- and out-of-state wildland fire assignments, and act as a steppingstone to the Associate of Applied Science degree in wildland fire control. Completion of the wildland fire science occupational endorsement will create a well-rounded entry-level firefighter capable of filling positions on wildland fires. Applicants must be at least 18 years old to be admitted.

Minimum Requirements for Wildland Fire Science Occupational Endorsement: 11 credits

College of Rural and Community Development
Wildland Fire Science (https://www.uaf.edu/iac/programs/fire-science/)
907-474-7143

Admission Requirements
Complete the following admission requirement:

• Be at least 18 years old by the first day of the semester in which you are admitted.

Program Requirements
Students must earn a C- grade or better in each course.
Minimum Requirements for Wildland Fire Science Occupational Endorsement: 11 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>General University Requirements</strong></td>
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</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (p. 90)</td>
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</tr>
<tr>
<td></td>
<td><strong>Occupational Endorsement Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the occupational endorsement requirements. (p. 90)</td>
<td></td>
</tr>
<tr>
<td><strong>Wildland Fire Science Program Requirements</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WFS F151</td>
<td>Wildland Firefighter I</td>
<td>3</td>
</tr>
<tr>
<td>WFS F152</td>
<td>Wildland Firefighter II</td>
<td>3</td>
</tr>
<tr>
<td>WFS F153</td>
<td>Wildland Firefighter III</td>
<td>2</td>
</tr>
<tr>
<td>WFS F157</td>
<td>Wildland Air Operations</td>
<td>3</td>
</tr>
</tbody>
</table>
CERTIFICATES & ASSOCIATE DEGREES

To earn a UAF degree, you must satisfy three sets of requirements: general university requirements; certificate or degree requirements; and program (major) requirements. These requirements are all described in this section of the catalog. Requirements for your major are found in the Certificate and Associate Degree Programs (p. 113) section.

If your degree program is delivered collaboratively within the UA system (e.g., information technology specialist, early childhood education, human services, rural human services), then the credits you earn from each UA institution will be counted toward fulfillment of the degree requirements and fulfillment of the minimum institutional residency requirements. Institutional residency requirements are the minimum number of credits you must earn from the campus where you earn a degree.

General University Requirements

You must earn at least 30 semester credits for a certificate and 60 semester credits for an associate degree, including transfer credits, at the 100-level or above. At least 15 semester credits applicable to any certificate or associate degree must be earned at UAF. A minimum cumulative GPA of 2.0 is required in all work as well as in your major field. You must earn a C- grade or higher in all courses required for your degree, unless otherwise specified by your major (major, minor, general education requirements and degree requirements). Some majors require higher GPAs for major course work.

Unless otherwise specified by the appropriate academic unit, a course may be taken more than once toward fulfilling degree, certificate or major requirements. However, credit hours for such courses count only once toward total credits required for the degree or certificate.

<table>
<thead>
<tr>
<th>Minimum number of credits required</th>
<th>Certificate</th>
<th>Associate Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 credits</td>
<td>15 credits</td>
<td>15 credits</td>
</tr>
<tr>
<td>2.0 cumulative and in major</td>
<td>2.0 cumulative and in major</td>
<td></td>
</tr>
<tr>
<td>No grade lower than C- in courses required for major. Some departments have higher requirements</td>
<td>No grade lower than C- in courses required for major. Some departments have higher requirements</td>
<td></td>
</tr>
</tbody>
</table>

May use any catalog in effect when enrolled as a degree-seeking student, regardless of major; five-year limit on catalog year

May use any catalog in effect when enrolled as a degree-seeking student, regardless of major; five-year limit on catalog year

Second degree requirements

Only one A.A. degree may be earned; 12 credits beyond first A.A.S. degree and all requirements for the second degree must be met

MAJORS

You may declare a major when you are admitted to UAF as a degree undergraduate student. If you haven't chosen a major, you'll be enrolled as a general studies student. Nondegree students are not eligible to declare a major, be assigned class standing or receive financial aid.

Students enrolled in associate degree or certificate programs who want to declare a bachelor's degree major must apply for admission to a degree program following the standard admission process for bachelor's degree programs. (See admission requirements in How to Earn a Bachelor's Degree (p. 154).)

- Changing Your Major

Undergraduate students may change majors by completing a change of major form available from the Office of the Registrar forms page (http://www.uaf.edu/reg/forms/). A change of major becomes effective the semester it is submitted. Students who wish to change majors from one level to another level (e.g., from an associate degree to a bachelor's degree) must apply for admission to the degree program following the standard admission process.

CONCENTRATIONS

An area of emphasis, including the major core courses within a student's degree program, is termed a concentration. Some programs at UAF require a concentration, others do not. A student may only earn one degree in a specific discipline once. Using different concentrations within a degree program to count as different degrees is not allowed.

SECOND CERTIFICATE

To receive an additional certificate, you must complete the requirements for each certificate. You are not required to complete any additional credits beyond the requirements for each certificate.

SECOND ASSOCIATE DEGREE

To receive a second Associate of Applied Science degree, you must earn at least 12 credit hours beyond the first associate degree as well as complete all requirements for the major. As long as you have completed the additional 12-hour requirement, you may be awarded two degrees in one semester.

DEGREE REQUIREMENTS AND TIME LIMITS

You may complete degree requirements in effect and published in the UAF catalog in any one of the previous five academic years in which you are enrolled as a degree student for a certificate or associate degree. You are considered enrolled in your degree program when you complete the appropriate degree student registration procedure. If you do not enroll for a semester or more, or if you enroll through the nondegree student registration process, you aren't considered enrolled as a degree student during that time.

EXCEPTIONS TO DEGREE REQUIREMENTS

Occasionally an undergraduate student may request an exception to an academic requirement or regulation. Requests for an academic dispensation must be approved by petition. If you submit a petition
on the basis of a disability, the coordinator of Disability Services will be consulted. Undergraduate Petition forms are available at the Office of the Registrar or on the Office of the Registrar’s forms page (http://www.uaf.edu/reg/forms/). Forms must be returned to the Office of the Registrar with required approval signatures. The Office of the Registrar will note your petition in DegreeWorks once the appropriate person or committee has made a decision. Academic petitions fall into three categories, and each involves different processes:

- **General Education Requirement Petitions**
  If your petition deals with baccalaureate general education requirements or the Associate of Arts or Science library science requirement, your advisor and the head of the department of the academic area involved must grant approval. Submit your signed petition to the Office of the Registrar. It will then be forwarded to the chair of the Faculty Senate Core/General Education Requirement Curriculum Review Committee for consideration.

- **Major or Minor Degree Requirement Petitions**
  If you want to waive or substitute courses within your major or minor requirements, you need approval signatures from your advisor and the department or program head of your major or minor area. Submit your signed petition to the Office of the Registrar.

- **Petitions for Other Requirements**
  If your petition deals with general university and/or specific requirements for your degree or other academic policies, you need approval from your advisor and the dean or director of the college or school in which your major is located. Submit your signed petition to the Office of the Registrar. It will then be forwarded to the provost for consideration.

### RESIDENCE CREDIT

Residence credit is course credit earned through any unit of UAF. Formal classroom instruction, correspondence study, distance-delivered courses, individual study or research at UAF are all considered residence credit. On the other hand, transfer credit, advanced placement credit, credit for prior learning, military service credit and credit granted through nationally prepared examinations are not considered residence credit, nor are credit-by-examination credits earned through locally prepared tests. None of these types of credit can be applied to UAF residency requirements.

### RESIDENCY REQUIREMENT

Most universities have residency requirements that call for a certain number of credits toward a degree to be earned at the degree-granting school. At UAF, the residency requirement for both certificates and associate degrees is 15 resident credits.

### ALASKA NATIVE-THEMED REQUIREMENTS

The Alaska Native-themed requirement is a degree requirement for all baccalaureate, associate of arts and associate of science degrees. The requirement may be met by taking a designated Alaska Native-themed course anywhere in the student’s course of study, including general education requirements, major requirements, minor requirements and electives.

### GRADUATION

- **Responsibility**
  You are responsible for meeting all requirements for graduation. You are encouraged to work with your advisor and use DegreeWorks throughout your college career to ensure you are on track to graduate.

- **Application for Graduation**
  You need to formally apply for graduation. An application for graduation and nonrefundable fee must be filed with the Office of the Registrar. We encourage you to apply the semester prior to the semester you plan to graduate. If you file your application by the published deadline, the graduation application fee is $50. If you miss that deadline, you can submit a late application for graduation by the published late graduation deadline for the semester. The fee for a late application is $80. Applications for graduation filed after the late deadline are processed for graduation the following semester. Students who apply for graduation and who do not complete degree requirements by the end of the semester must reapply for graduation and repay the fee.

- **Diplomas and Commencement**
  UAF issues diplomas to graduates three times a year: in September following summer sessions, in February at the end of fall semester and in June at the end of spring semester. Students who complete degree requirements for UA Board of Regents approved academic programs during the academic year are invited to participate in the annual commencement ceremony at the end of spring semester. Names of students receiving degrees/certificates appear in the commencement program and are released to the media unless you submit a written request not to do so to the Office of the Registrar. Graduates are responsible for ordering caps and gowns through the UAF bookstore in early spring.

- **Graduation with Honors**
  Graduation with honors is a tribute that recognizes academic achievement. Honors graduates have earned a cumulative GPA of 3.5 or higher in all college work. If a student’s overall cumulative GPA is 3.5 or higher, a student graduates with the distinction of cum laude; 3.75 or higher, magna cum laude; 3.9 or higher and no grade lower than A-, summa cum laude. Your cumulative GPA for graduation with honors is based on all college work attempted at UAF, including any repeated or omitted credits due to Fresh Start/academic bankruptcy. For transfer students to be considered for graduation with honors, they must have:
  - 3.5 cumulative GPA in all attempted UAF credits, and
  - UAF residence credit of 24 semester hours for an associate degree.

Once those requirements are met, a cumulative GPA is calculated combining all college work attempted at UAF; as well as all college work attempted at any other institutions you’ve attended, including repeated credits and any credits may not have been accepted for transfer to UAF. The combined cumulative GPA must also be 3.5 or higher for a transfer student to graduate with honors.

See a list of all Certificate and Associate Degree programs here (p. 113).

### Summary of Certificate and Associate Degree Requirements

#### Types of Certificates and Associate Degrees

- **Certificate Programs**
  Certificate programs are for students preparing for entry-level employment or upgrading in a specific occupation.

- **Associate of Science**
  The A.S. degree represents the completion of a broad-based course of study with an emphasis in the sciences. This degree may serve as a
steppingstone to a science-related baccalaureate program. You may earn only one A.S. degree.

- **Associate of Arts**
The A.A. is a program of study with an interdisciplinary approach useful for transferring to future degree programs or as a starting point for a career. An emphasis created in an A.A. program can fulfill general education requirements or become the basis for a minor in many bachelor’s programs. The A.A. degree is offered at all UAF campuses as well as online. Students may earn only one A.A.

- **Associate of Applied Science**
The A.A.S. is for students preparing for entry-level employment or upgrading in a specific occupation. This degree is not intended for transfer into a four-year degree program. However, some courses within the A.A.S. degree may be accepted in a four-year bachelor’s program. (Each course is considered on an individual basis.)

### General Associate Degree Requirements

You must have completed at least 60 semester hours, including transfer credits, to earn a UAF associate degree.

At least 15 credits applicable to any associate degree must be UAF resident credits.

See a list of all Certificate and Associate Degree programs here. (p. 113)

### Certificates

#### Certificate Requirements

Certificate programs vary in length; however, you can usually complete them in one year. Certificates are awarded in specific occupational fields with emphasis on entering the job market. These certificates can serve as the basis for additional education and are the first step toward an Associate of Applied Science degree. For specific major requirements, refer to the degrees and programs section (p. 113).

If your degree program is delivered collaboratively within the UA system, credits you earn from each UA institution will be counted toward fulfillment of the degree requirements and fulfillment of the minimum institutional residency requirements.

You may enroll in any course for which you are eligible. To earn a certificate, you must formally be admitted to a certificate program and you must earn at least 30 credits, including transfer credit. Fifteen semester hours must be residence credits.

You must have a cumulative GPA of at least 2.0 in your major and overall. You must earn a C- grade or higher in all courses required for your degree, unless otherwise specified by your major (major, minor, general education requirements and degree requirements). Some majors require higher GPAs for major course work. Programs of study for which certificates are granted must contain a recognizable body of instruction in the program-related areas of communication, computation, and human relations.

Additional appropriate topics may include safety, industrial safety and environmental awareness. Instruction in the related instructional areas may be embedded within the program curriculum or taught in blocks of specialized instruction. Each approach, however, will have clearly identified content that is pertinent to the general program of study.

**Note:** Students planning to go on to a bachelor’s degree need to work closely with their advisors and are encouraged to select courses meeting general education requirements and courses designated within majors and minors. Only those courses with an X designator count toward the baccalaureate general education requirements.

### REQUIREMENTS

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Complete one of the following:</td>
<td>2-3</td>
</tr>
<tr>
<td>ABUS F170</td>
<td>Business English</td>
<td></td>
</tr>
<tr>
<td>ABUS F271</td>
<td>Business Communications</td>
<td></td>
</tr>
<tr>
<td>COJO F121X</td>
<td>Introduction to Interpersonal Communication</td>
<td></td>
</tr>
<tr>
<td>COJO F131X</td>
<td>Fundamentals of Oral Communication: Group Context</td>
<td></td>
</tr>
<tr>
<td>COJO F141X</td>
<td>Fundamentals of Oral Communication: Public Context</td>
<td></td>
</tr>
<tr>
<td>DEVS F104</td>
<td>University Communications</td>
<td></td>
</tr>
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<td>DEVS F105</td>
<td>Academic Reading for College</td>
<td></td>
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<td>Writing Across Contexts</td>
<td></td>
</tr>
<tr>
<td>WRTG F211X</td>
<td>Writing and the Humanities</td>
<td></td>
</tr>
<tr>
<td>WRTG F212X</td>
<td>Writing and the Professions</td>
<td></td>
</tr>
<tr>
<td>WRTG F213X</td>
<td>Writing and the Sciences</td>
<td></td>
</tr>
<tr>
<td>WRTG F214X</td>
<td>Arguing Across Contexts</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other program-approved discipline-based communication course or discipline-based courses with embedded communication content.</td>
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<td></td>
<td>Computation</td>
<td>2-3</td>
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<td>HLTH F116</td>
<td>Mathematics in Health Care</td>
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<td>HUMS F117</td>
<td>Practical Math Skills</td>
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<td>MATH F105</td>
<td>Intermediate Algebra</td>
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<td>TTCH F131</td>
<td>Mathematics for the Trades</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other program-approved discipline-based computation course or discipline-based courses with embedded computation content.</td>
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</tr>
<tr>
<td></td>
<td>Human Relations</td>
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<td>Complete one of the following:</td>
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<td>ABUS F154</td>
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<td>ANL F287</td>
<td>Teaching Methods for Alaska Native Languages</td>
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<tr>
<td>ANTH F100X</td>
<td>Individual, Society and Culture</td>
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<td>ECE F104X</td>
<td>Child Development I: Prenatal, Infants and Toddlers</td>
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<td>ECE F107X</td>
<td>Child Development II: The Preschool and Primary Years</td>
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<td>Child Development</td>
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<tr>
<td>HLTH F106</td>
<td>Human Behavior in Health Care</td>
<td></td>
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<td>HUMS F120</td>
<td>Cultural Diversity in Human Services</td>
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<td>RHS F110</td>
<td>Cross-cultural Bridging Skills</td>
<td></td>
</tr>
<tr>
<td>and RHS F115</td>
<td>and Issues of Personal Development</td>
<td></td>
</tr>
<tr>
<td>SOC F101X</td>
<td>Introduction to Sociology</td>
<td></td>
</tr>
</tbody>
</table>

Credits
Other program-approved discipline-based human relations or discipline-based courses with embedded human relations content.

**Major Specialty**

At least 21 hours of major specialty courses 21

**Electives to Total** 30

### Associate of Arts

#### Associate of Arts Requirements

The Associate of Arts degree represents the completion of broad-based college study. This degree may serve as a starting point for your career or as a steppingstone to a bachelor's program. You may earn only one A.A. degree.

Students planning to go on to a bachelor's degree are advised to select courses meeting remaining general education requirements and courses designated within bachelor's degree majors and minors.

You must have a cumulative GPA of at least 2.0 in your major and overall. You must earn a C- grade or higher in all courses required for your degree, unless otherwise specified by your major (major, minor, general education requirements and degree requirements). Some majors require higher GPAs for major course work.

The curriculum of the Associate of Arts degree consists of all courses required to meet the UAF baccalaureate general education requirements, with the following exception:

All credits for the A.A. degree must be at the F100 level or above, with 20 credits at the F200 level or above, and be distributed as follows:

<table>
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<tr>
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<td>A.A. degree requirements</td>
<td>3-4</td>
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<tr>
<td></td>
<td>General electives</td>
<td>19-24</td>
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</table>

**Total Credits** 60

### REQUIREMENTS

#### Minimum Requirements for Degree: 60 credits

**General Education Requirements**

<table>
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<th>Code</th>
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<tbody>
<tr>
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<td>Communication</td>
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Complete the following:

<table>
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<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>COJO F121X</td>
<td>Introduction to Interpersonal Communication</td>
<td></td>
</tr>
<tr>
<td>or COJO F131X</td>
<td>Fundamentals of Oral Communication: Group Context</td>
<td></td>
</tr>
<tr>
<td>or COJO F141X</td>
<td>Fundamentals of Oral Communication: Public Context</td>
<td></td>
</tr>
<tr>
<td>WRTG F111X</td>
<td>Writing Across Contexts</td>
<td></td>
</tr>
<tr>
<td>WRTG F211X</td>
<td>Writing and the Humanities</td>
<td></td>
</tr>
<tr>
<td>or WRTG F212X</td>
<td>Writing and the Professions</td>
<td></td>
</tr>
<tr>
<td>or WRTG F213X</td>
<td>Writing and the Sciences</td>
<td></td>
</tr>
<tr>
<td>or WRTG F214X</td>
<td>Arguing Across Contexts</td>
<td></td>
</tr>
<tr>
<td>ANS/FLPA F161X</td>
<td>Introduction to Alaska Native Performance</td>
<td></td>
</tr>
<tr>
<td>ANS F202X</td>
<td>Aesthetic Appreciation of Alaska Native Performance</td>
<td></td>
</tr>
<tr>
<td>ANS/MUS/ACNS F223X</td>
<td>Alaska Native Music</td>
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<td>ART F200X</td>
<td>Explorations in Art</td>
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<tr>
<td>ART F261X</td>
<td>History of World Art</td>
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<td>ART F262X</td>
<td>History of World Art</td>
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<td>ENGL/FLPA/COJO F217X</td>
<td>Introduction to the Study of Film</td>
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<td>FLPA/COJO F105X</td>
<td>History of the Cinema</td>
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<td>FLPA F121X</td>
<td>Fundamentals of Acting</td>
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<td>FLPA F200X</td>
<td>Discovering Stage &amp; Screen</td>
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<td>FLPA F215X</td>
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<tr>
<td>HUM F201X</td>
<td>Unity in the Arts</td>
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<td>MUS F103X</td>
<td>Music Fundamentals</td>
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<td>MUS F125X</td>
<td>Enjoying Jazz</td>
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<tr>
<td>MUS F200X</td>
<td>Explorations in Music</td>
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</tr>
<tr>
<td>ANL F251X</td>
<td>Introduction to Athabascan Linguistics</td>
<td></td>
</tr>
<tr>
<td>ANL F255X</td>
<td>Introduction to Alaska Native Languages</td>
<td></td>
</tr>
<tr>
<td>COJO F101X</td>
<td>Media and Culture</td>
<td></td>
</tr>
<tr>
<td>COJO F102X</td>
<td>Introduction to Broadcasting</td>
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<tr>
<td>ENGL/FL F200X</td>
<td>World Literature</td>
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<tr>
<td>ENGL F201X</td>
<td>Texts and Contexts</td>
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<td>ENGL F270X</td>
<td>Introduction to Creative Writing</td>
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<td>LING F101X</td>
<td>Nature of Language</td>
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<td>LING F216X</td>
<td>Languages of the World</td>
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<td>PHIL F102X</td>
<td>Introduction to Philosophy</td>
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<tr>
<td>PHIL F104X</td>
<td>Logic and Reasoning</td>
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<tr>
<td>RELG F221X</td>
<td>Religions of the World</td>
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</tr>
<tr>
<td>ANL F141X</td>
<td>Beginning Dene / Athabaskan I</td>
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</tr>
<tr>
<td>ANL F142X</td>
<td>Beginning Dene / Athabaskan II</td>
<td></td>
</tr>
<tr>
<td>ASLG F101X</td>
<td>American Sign Language I</td>
<td></td>
</tr>
<tr>
<td>ASLG F202X</td>
<td>American Sign Language II</td>
<td></td>
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<tr>
<td>CHNS F101X</td>
<td>Elementary Chinese I</td>
<td></td>
</tr>
<tr>
<td>CHNS F102X</td>
<td>Elementary Chinese II</td>
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<td>FREN F101X</td>
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<td>FREN F102X</td>
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<td>GER F101X</td>
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<tr>
<td>GER F102X</td>
<td>Elementary German II</td>
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<tr>
<td>INU F111X</td>
<td>Elementary Inupiaq I</td>
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</tr>
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<td>INU F112X</td>
<td>Elementary Inupiaq II</td>
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<td>JPN F101X</td>
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<tr>
<td>JPN F102X</td>
<td>Elementary Japanese II</td>
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</tr>
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<td>LAT F101X</td>
<td>Beginning Latin I</td>
<td></td>
</tr>
<tr>
<td>LAT F102X</td>
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<tr>
<td>RUSS F101X</td>
<td>Elementary Russian I</td>
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### Humanities

3-5

Complete one of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANL F251X</td>
<td>Introduction to Athabascan Linguistics</td>
</tr>
<tr>
<td>ANL F255X</td>
<td>Introduction to Alaska Native Languages</td>
</tr>
<tr>
<td>COJO F101X</td>
<td>Media and Culture</td>
</tr>
<tr>
<td>COJO F102X</td>
<td>Introduction to Broadcasting</td>
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<tr>
<td>ENGL/FL F200X</td>
<td>World Literature</td>
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<td>ENGL F201X</td>
<td>Texts and Contexts</td>
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<td>ENGL F270X</td>
<td>Introduction to Creative Writing</td>
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<td>LING F101X</td>
<td>Nature of Language</td>
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<tr>
<td>LING F216X</td>
<td>Languages of the World</td>
</tr>
<tr>
<td>PHIL F102X</td>
<td>Introduction to Philosophy</td>
</tr>
<tr>
<td>PHIL F104X</td>
<td>Logic and Reasoning</td>
</tr>
<tr>
<td>RELG F221X</td>
<td>Religions of the World</td>
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<tr>
<td>OR take one of the following:</td>
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<tr>
<td>ANL F141X</td>
<td>Beginning Dene / Athabaskan I</td>
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<td>ANL F142X</td>
<td>Beginning Dene / Athabaskan II</td>
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<td>ASLG F101X</td>
<td>American Sign Language I</td>
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<td>CHNS F101X</td>
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<td>CHNS F102X</td>
<td>Elementary Chinese II</td>
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<tr>
<td>FREN F101X</td>
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<td>FREN F102X</td>
<td>Elementary French II</td>
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<td>Elementary German II</td>
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<tr>
<td>JPN F102X</td>
<td>Elementary Japanese II</td>
</tr>
<tr>
<td>LAT F101X</td>
<td>Beginning Latin I</td>
</tr>
<tr>
<td>LAT F102X</td>
<td>Beginning Latin II</td>
</tr>
<tr>
<td>RUSS F101X</td>
<td>Elementary Russian I</td>
</tr>
</tbody>
</table>
### Social Sciences

Complete two courses from the following in two different disciplines:

**RUSS F102X**  
Elementary Russian II

**SPAN F101X**  
Elementary Spanish I

**SPAN F102X**  
Elementary Spanish II

**YUP F101X**  
Elementary Central Yup’ik I

**YUP F102X**  
Elementary Central Yup’ik II

### Additional Arts/Humanities/Social Science 3-5

Complete one additional course from the arts, humanities or social science courses listed above.

### Mathematics 3-4

Complete one of the following:

**MATH F113X**  
Numbers and Society

**MATH F114X**  
Patterns and Society

**MATH F122X**  
Essential Precalculus with Applications

**MATH F151X**  
College Algebra for Calculus

**MATH F152X**  
Trigonometry

**MATH F156X**  
Precalculus

**MATH F230X**  
Essential Calculus with Applications

**MATH F251X**  
Calculation I

**MATH F252X**  
Calculation II

**MATH F253X**  
Calculation III

**STAT F200X**  
Elementary Statistics

### Natural Sciences 8

Complete two from the following:

**ATM F101X**  
Weather and Climate of Alaska

**BIOL F100X**  
Human Biology

**BIOL F103X**  
Biological and Society

**BIOL F104X**  
Natural History of Alaska

**BIOL F111X**  
Human Anatomy and Physiology I

**BIOL F112X**  
Human Anatomy and Physiology II

**BIOL F115X**  
Fundamentals of Biology I

**BIOL F116X**  
Fundamentals of Biology II

**BIOL F120X**  
Introduction to Human Nutrition

**CHEM F100X**  
Chemistry in Complex Systems

**CHEM F103X**  
Introduction to General Chemistry

**CHEM F104X**  
Introduction to Organic Chemistry and Biochemistry

**CHEM F105X**  
General Chemistry I

**CHEM F106X**  
General Chemistry II

**CHEM F111X**  
Introduction to Environmental Chemistry of the Arctic

**CHEM F111X**  
Earth and Environment. Elements of Physical Geography

**GEOS F101X**  
The Dynamic Earth

**GEOS F106X**  
Life in the Age of Dinosaurs

**GEOS F112X**  
The History of Earth and Life

**GEOS F120X**  
Glaciers, Earthquakes and Volcanoes: Past, Present and Future

**MSL F111X**  
The Oceans

**PHYS F102X**  
Energy and Society

**PHYS F115X**  
Physical Sciences

**PHYS F123X**  
College Physics I

**PHYS F124X**  
College Physics II

**PHYS F165X**  
Introduction to Astronomy

**PHYS F211X**  
General Physics I
PHYS F212X General Physics II
PHYS F213X Elementary Modern Physics

1. You may earn credit for MATH F122X or MATH F151X, but not both.
2. You may earn credit for MATH F230X or MATH F251X, but not both.
3. Or any math course having one of these as a prerequisite.

A.A. Degree Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Library and Information Research</td>
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<tr>
<td></td>
<td>Complete one of the following prior to junior standing:</td>
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<tr>
<td></td>
<td>LS F101X Library Information and Research</td>
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<tr>
<td></td>
<td>Successful completion of library skills competency test</td>
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<tr>
<td></td>
<td>Alaska Native-themed Requirement</td>
<td>3</td>
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<tr>
<td></td>
<td>During the completion of coursework, 3 credits of Alaska Native-themed course(s) must be completed. See Alaska Native-themed courses chart for available courses.</td>
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</tr>
<tr>
<td></td>
<td>Complete the Alaska Native-themed requirements.</td>
<td>(p. 174)</td>
</tr>
</tbody>
</table>

Associate of Applied Science

Associate of Applied Science Requirements

Associate of applied science degrees are awarded in specific occupational fields with emphasis on entering the job market. This degree, usually seen as a terminal degree, can serve as the basis for additional education. For specific major requirements, see the Certificate and Associate Degree Programs (p. 113) section.

Students planning to go on to a bachelor’s degree need to work closely with their advisors and are encouraged to select courses meeting general education requirements and courses designated within majors and minors. Only courses with an X designator count towards the baccalaureate general education requirements (GER).

You must have a cumulative GPA of at least 2.0 in your major and overall. You must earn a C- grade or higher in all courses required for your degree, unless otherwise specified by your major (major, minor, general education requirements and degree requirements). Some majors require higher GPAs for major course work.

All credits for the A.A.S. degree must be at the F100 level or above and be distributed as follows:

REQUIREMENTS

Minimum Requirements for Degree: 60 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tr>
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<td>Communication</td>
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<tr>
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<td>Complete the following:</td>
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<tr>
<td></td>
<td>ABUS F271 Business Communications</td>
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<tr>
<td></td>
<td>or WRTG F211X Writing and the Humanities</td>
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</tr>
<tr>
<td></td>
<td>or WRTG F212X Writing and the Professions</td>
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</tr>
<tr>
<td></td>
<td>or WRTG F213X Writing and the Sciences</td>
<td></td>
</tr>
<tr>
<td></td>
<td>or WRTG F214X Arguing Across Contexts</td>
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</tr>
<tr>
<td></td>
<td>COJO F121X Introduction to Interpersonal Communication</td>
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</table>

or COJO F131X Fundamentals of Oral Communication: Group Context
or COJO F141X Fundamentals of Oral Communication: Public Context
WRTG F111X Writing Across Contexts

Computation

Complete one of the following:

Any course at the F100 level or above in mathematical sciences (computer science, math or statistics)
ABUS F155 Business Math
ECE F117 Practical Math Skills
HLTH F116 Mathematics in Health Care
HUMS F117 Practical Math Skills
MATH F105 Intermediate Algebra
TTCH F131 Mathematics for the Trades
Other program-approved discipline-based computation course or discipline-based course with embedded computation content

Human Relations

Complete one of the following:

ABUS F154 Human Relations
ANL F287 Teaching Methods for Alaska Native Languages
ANTH F100X/ SOC F101X Individual, Society and Culture
ECE F104X Child Development I: Prenatal, Infants and Toddlers
ECE F107X Child Development II: The Preschool and Primary Years
ED/PSY F245 Child Development
HLTH F106 Human Behavior in Health Care
HUMS F120 Cultural Diversity in Human Services
RHS F110 Cross-cultural Bridging Skills and Issues of Personal Development
Other program-approved discipline-based human relations course or discipline-based course with embedded human relations content

Major Specialty

At least 30 hours of major specialty courses 30
Electives to total 60

Associate of Science

Associate of Science Requirements

The Associate of Science degree represents the completion of a broad-based course of study with an emphasis in the sciences. This degree may serve as a steppingstone to a science-related baccalaureate program. You may earn only one A.S. degree.

You must have a cumulative GPA of at least 2.0 in your major and overall. You must earn a C- grade or higher in all courses required for your degree, unless otherwise specified by your major (major, minor, general education requirements and degree requirements). Some majors require higher GPAs for major course work.
## REQUIREMENTS

**Minimum Requirements for Degree: 60 credits**

### General Education Requirements

<table>
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<td><strong>Communication</strong></td>
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<tr>
<td>COJO F121X</td>
<td>Introduction to Interpersonal Communication</td>
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</tr>
<tr>
<td>or COJO F131X</td>
<td>Fundamentals of Oral Communication: Group Context</td>
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<tr>
<td>or COJO F141X</td>
<td>Fundamentals of Oral Communication: Public Context</td>
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<tr>
<td>WRTG F111X</td>
<td>Writing Across Contexts</td>
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<tr>
<td>WRTG F211X</td>
<td>Writing and the Humanities</td>
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<tr>
<td>or WRTG F212X</td>
<td>Writing and the Professions</td>
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<tr>
<td>or WRTG F213X</td>
<td>Writing and the Sciences</td>
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<td>or WRTG F214X</td>
<td>Arguing Across Contexts</td>
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<td><strong>Arts</strong></td>
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<tr>
<td>ART F105X</td>
<td>Beginning Drawing</td>
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<tr>
<td>ANS/FLPA F161X</td>
<td>Introduction to Alaska Native Performance</td>
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<tr>
<td>ANS F202X</td>
<td>Aesthetic Appreciation of Alaska Native Performance</td>
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<tr>
<td>ANS/MUS/ACNS F223X</td>
<td>Alaska Native Music</td>
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<tr>
<td>ART F200X</td>
<td>Explorations in Art</td>
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<tr>
<td>ART F261X</td>
<td>History of World Art</td>
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<tr>
<td>ART F262X</td>
<td>History of World Art</td>
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<tr>
<td>ENGL/FLPA/COJO F217X</td>
<td>Introduction to the Study of Film</td>
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<tr>
<td>FLP/COJO F105X</td>
<td>History of the Cinema</td>
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<tr>
<td>FLP F121X</td>
<td>Fundamentals of Acting</td>
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<tr>
<td>FLP F200X</td>
<td>Discovering Stage &amp; Screen</td>
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<td>FLP F215X</td>
<td>Dramatic Literature and History</td>
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<td>HUM F201X</td>
<td>Unity in the Arts</td>
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<td>MUS F103X</td>
<td>Music Fundamentals</td>
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<tr>
<td>MUS F125X</td>
<td>Enjoying Jazz</td>
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<td>MUS F200X</td>
<td>Explorations in Music</td>
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<td><strong>Humanities</strong></td>
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<tr>
<td>ANL F251X</td>
<td>Introduction to Athabascan Linguistics</td>
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<td>ANL F255X</td>
<td>Introduction to Alaska Native Languages</td>
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<td>COJO F101X</td>
<td>Media and Culture</td>
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<td>COJO F102X</td>
<td>Introduction to Broadcasting</td>
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<td>ENGL/FL F200X</td>
<td>World Literature</td>
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<td>ENGL F201X</td>
<td>Texts and Contexts</td>
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<td>ENGL F270X</td>
<td>Introduction to Creative Writing</td>
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<tr>
<td>LING F101X</td>
<td>Nature of Language</td>
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<tr>
<td>LING F216X</td>
<td>Languages of the World</td>
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<tr>
<td>PHIL F102X</td>
<td>Introduction to Philosophy</td>
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<tr>
<td>PHIL F104X</td>
<td>Logic and Reasoning</td>
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<tr>
<td>RELG F221X</td>
<td>Religions of the World</td>
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<td>ANL F141X</td>
<td>Beginning Dene / Athabascan I</td>
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<td>ANL F142X</td>
<td>Beginning Dene / Athabascan II</td>
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<td>ASLG F101X</td>
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<td>CHNS F102X</td>
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<td>GER F101X</td>
<td>Elementary German I</td>
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<td>INU F111X</td>
<td>Elementary Inupiaq I</td>
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<td>JPN F101X</td>
<td>Elementary Japanese I</td>
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<td>LAT F101X</td>
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<td>RUSS F102X</td>
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<td>SPAN F101X</td>
<td>Elementary Spanish I</td>
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<td>SPAN F102X</td>
<td>Elementary Spanish II</td>
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<td>YUP F101X</td>
<td>Elementary Central Yup’ik I</td>
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<td>Elementary Central Yup’ik II</td>
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<td><strong>Social Sciences</strong></td>
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<td>ACCT F261X</td>
<td>Principles of Financial Accounting</td>
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<td>ANS F111X</td>
<td>History of Colonization in Alaska: The Indigenous Response</td>
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<td>ANS F242X</td>
<td>Indigenous Cultures of Alaska</td>
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<td>ANTH F100X</td>
<td>Individual, Society and Culture</td>
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<td>ANTH F101X</td>
<td>Introduction to Anthropology</td>
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<td>ANTH F111X</td>
<td>Ancient Civilizations</td>
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<td>ANTH F211X</td>
<td>Fundamentals of Archaeology</td>
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<tr>
<td>BA F151X</td>
<td>Introduction to Business</td>
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<td>BA F254X</td>
<td>Personal Finance (s)</td>
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<td>BA/SPRT F281X</td>
<td>Introduction to Sport Management</td>
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<td>ECE F104X</td>
<td>Child Development I: Prenatal, Infants and Toddlers</td>
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<td>ECE F107X</td>
<td>Child Development II: The Preschool and Primary Years</td>
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<td>ECE F210X</td>
<td>Child Guidance</td>
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<td>ECON F100X</td>
<td>Introduction to Economic Analysis</td>
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<td>ECON F111X</td>
<td>The Economy of Rural Alaska</td>
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<td>ECON F201X</td>
<td>Principles of Economics I: Microeconomics</td>
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<td>ECON F202X</td>
<td>Principles of Economics II: Macroeconomics</td>
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<td>ECON F235X</td>
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<td>GEOG F101X</td>
<td>Expedition Earth: Introduction to Geography</td>
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<td>History of Alaska Natives from Contact to the Present</td>
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<td>HUMS/JUST F125X</td>
<td>Introduction to Addictive Processes</td>
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<td>JUST F110X</td>
<td>Introduction to Justice</td>
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<td>Criminology</td>
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<td>PS F100X</td>
<td>Political Economy</td>
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<td>PS F101X</td>
<td>Introduction to American Government and Politics</td>
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<td>PS F201X</td>
<td>Comparative Politics</td>
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<td>PS F221X</td>
<td>International Politics</td>
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<td>PSY F101X</td>
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<td>RD F200X</td>
<td>Rural Development in the North</td>
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<td>SOC F101X</td>
<td>Introduction to Sociology</td>
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<td>SOC F201X</td>
<td>Social Problems and Solutions</td>
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<td>SWK F103X</td>
<td>Introduction to Social Work</td>
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<td>WGS F201X</td>
<td>Introduction to Women, Gender and Sexuality Studies</td>
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<td>CHEM F100X</td>
<td>Chemistry in Complex Systems</td>
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<td>CHEM F103X</td>
<td>Introduction to General Chemistry</td>
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<td>CHEM F104X</td>
<td>Introduction to Organic Chemistry and Biochemistry</td>
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<td>CHEM F105X</td>
<td>General Chemistry I</td>
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<td>CHEM F106X</td>
<td>General Chemistry II</td>
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<td>Introduction to Environmental Chemistry of the Arctic</td>
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<td>Earth and Environment: Elements of Physical Geography</td>
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<td>GEOS F101X</td>
<td>The Dynamic Earth</td>
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<td>Life in the Age of Dinosaurs</td>
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<td>GEOS F112X</td>
<td>The History of Earth and Life</td>
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<td>GEOS F120X</td>
<td>Glaciers, Earthquakes and Volcanoes: Past, Present and Future</td>
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<td>MSL F111X</td>
<td>The Oceans</td>
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<tr>
<td>PHYS F102X</td>
<td>Energy and Society</td>
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<td>PHYS F115X</td>
<td>Physical Sciences</td>
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<td>PHYS F124X</td>
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<tr>
<td>PHYS F165X</td>
<td>Introduction to Astronomy</td>
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<td>PHYS F211X</td>
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<td>PHYS F213X</td>
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<tr>
<td>Additional Arts/Humanities/Social Science</td>
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<td>Complete one additional course from the arts, humanities or social science courses listed above.</td>
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<td>Mathematics</td>
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<td>MATH F113X</td>
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<td>MATH F114X</td>
<td>Patterns and Society</td>
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<td>MATH F122X</td>
<td>Essential Precalculus with Applications  ^1</td>
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<tr>
<td>MATH F151X</td>
<td>College Algebra for Calculus</td>
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<tr>
<td>MATH F152X</td>
<td>Trigonometry</td>
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<td>MATH F156X</td>
<td>Precalculus</td>
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<tr>
<td>MATH F230X</td>
<td>Essential Calculus with Applications  ^2,3</td>
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<td>MATH F251X</td>
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<td>STAT F200X</td>
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<td>Complete four from the following:</td>
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<td>ATM F101X</td>
<td>Weather and Climate of Alaska</td>
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<td>BIOL F103X</td>
<td>Biology and Society</td>
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<td>BIOL F104X</td>
<td>Natural History of Alaska</td>
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<td>BIOL F111X</td>
<td>Human Anatomy and Physiology I</td>
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<td>Human Anatomy and Physiology II</td>
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<td>BIOL F115X</td>
<td>Fundamentals of Biology I</td>
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<td>BIOL F116X</td>
<td>Fundamentals of Biology II</td>
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<tr>
<td>BIOL F120X</td>
<td>Introduction to Human Nutrition</td>
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A.S. Degree Requirements

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<tr>
<td>Code</td>
<td>Title</td>
<td>Credits</td>
</tr>
<tr>
<td>Library and Information Research</td>
<td>0-1</td>
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<tr>
<td>Complete one of the following prior to junior standing:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LS F101X</td>
<td>Library Information and Research</td>
<td></td>
</tr>
<tr>
<td>Successful completion of library skills competency test</td>
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</tr>
</tbody>
</table>

Alaska Native-themed Requirement

During the completion of coursework, 3 credits of Alaska Native-themed course(s) must be completed. See Alaska Native-themed courses chart for available courses.

Complete the Alaska Native-themed requirements. (p. 174)
Accounting Technician

Certificate

The accounting technician program prepares students for entry-level accounting positions in payables and/or receivables, bookkeeping and payroll accounting. This program covers financial decision-making tools for the small-business operator as well.

Courses in this program address the concerns of modern businesspeople and provide training to enhance business success. The accounting technician certificate represents the first year of training toward the applied accounting A.A.S. degree.

Students entering the certificate program are expected to have basic computer skills equivalent to CIOS F150. Classes are offered online and during times that accommodate working students.

Community and Technical College
Department of Applied Accounting (https://www.ctc.uaf.edu/programs/accounting-applied/)
907-455-2800

Programs
Certificate

• Accounting Technician (p. 114)

Certificate, Accounting Technician

Students must earn a C- grade or better in each course.

Minimum Requirements for Accounting Technician Certificate: 30 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tr>
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<tr>
<td></td>
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<tr>
<td></td>
<td>Certificate Requirements</td>
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<tr>
<td></td>
<td>Communication</td>
<td></td>
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<tr>
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<td>Complete one of the following:</td>
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<tr>
<td>ABUS F170</td>
<td>Business English</td>
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</tr>
<tr>
<td>ABUS F271</td>
<td>Business Communications</td>
<td></td>
</tr>
<tr>
<td>WRTG F111X</td>
<td>Writing Across Contexts</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Computation</td>
<td></td>
</tr>
<tr>
<td>ABUS F155</td>
<td>Business Math (or MATH at the 100 level or above)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Human Relations</td>
<td></td>
</tr>
<tr>
<td>ABUS F154</td>
<td>Human Relations (or other UAF certificate-approved human relations course)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Accounting Technician Program Requirements</td>
<td></td>
</tr>
<tr>
<td>ABUS F101</td>
<td>Principles of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ABUS F141</td>
<td>Payroll Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ABUS F201</td>
<td>Principles of Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>or ABUS F235</td>
<td>Fund Accounting for Nonprofits</td>
<td></td>
</tr>
<tr>
<td>ABUS F203</td>
<td>Accounting Capstone</td>
<td>3</td>
</tr>
<tr>
<td>ABUS F210</td>
<td>Income Tax</td>
<td>3</td>
</tr>
</tbody>
</table>

Accounting, Applied

A.A.S. Degree

The applied accounting program prepares students for entry- and midlevel accounting positions in payables and/or receivables, bookkeeping and payroll accounting. This program covers financial decision-making tools for the small-business operator as well.

Courses in the applied accounting program address the concerns of modern businesspeople and provide training to enhance business success.

Students entering the A.A.S. program are expected to have basic computer skills equivalent to CIOS F150. Classes are offered online and during times that accommodate working students.

Minimum Requirements for Applied Accounting A.A.S. Degree: 60 credits

Community and Technical College
907-455-2800
Applied Accounting (https://www.ctc.uaf.edu/programs/accounting-applied/)

Programs

Degree

• A.A.S., Accounting, Applied (p. 114)

A.A.S., Accounting, Applied

Program Requirements

Students must earn a C- grade or better in each course.

Minimum Requirements for Applied Accounting A.A.S. Degree: 60 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td></td>
<td>General University Requirements</td>
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</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (p. 106)</td>
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</tr>
<tr>
<td></td>
<td>A.A.S. Degree Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the A.A.S. degree requirements. (p. 111)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Applied Accounting Program Requirements</td>
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</tr>
<tr>
<td>ABUS F101</td>
<td>Principles of Accounting I</td>
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</tr>
<tr>
<td>ABUS F141</td>
<td>Payroll Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ABUS F175</td>
<td>Customer Service</td>
<td>3</td>
</tr>
<tr>
<td>or ABUS F179</td>
<td>Fundamentals of Supervision</td>
<td></td>
</tr>
<tr>
<td>ABUS F201</td>
<td>Principles of Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>ABUS F202</td>
<td>Principles of Accounting III</td>
<td>3</td>
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<tr>
<td>ABUS F203</td>
<td>Accounting Capstone</td>
<td>3</td>
</tr>
<tr>
<td>ABUS F210</td>
<td>Income Tax</td>
<td>3</td>
</tr>
<tr>
<td>ABUS F220</td>
<td>Microcomputer Accounting: QuickBooks</td>
<td>3</td>
</tr>
<tr>
<td>ABUS F233</td>
<td>Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>ABUS F235</td>
<td>Fund Accounting for Nonprofits</td>
<td>3</td>
</tr>
</tbody>
</table>
The A.A.S. degree in apprenticeship technologies provides career and technical training and supporting course work to prepare students for the rapidly changing global workplace. The program also helps Alaska industries by training workers who can meet increasing certification requirements which reflect complex business and industrial standards.

The apprenticeship technologies program is a 60-credit A.A.S. degree delivered collaboratively through UAA, UAF and UAS. The practical integration of general course work and training for vocational-technical trades specifically reflects the commitment of the university to high-quality instruction and public service. Individuals earning this degree must complete a formal apprenticeship program and hold journey-level status in trades or occupations (including occupational license or occupational certificate) recognized by the U.S. Department of Labor's Training and Employment Administration.

Students declaring a major in apprenticeship technologies must present documentation of acceptance into an apprenticeship program meeting the requirements of the U.S. Department of Labor, Training and Employment Administration. The appropriate College of Rural and Community Development campus will review the documentation and may recommend up to 38 credits of course work following completion of all courses listed below. Students are encouraged to begin the required courses while completing the apprenticeship program to expand the quality and breadth of the program. Students who complete this program may be eligible to enroll in the B.S. technology degree program at UAA or the B.A.A.S. degree program at UAF.

Minimum Requirements for Apprenticeship Technologies A.A.S. Degree: 60 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tr>
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<tr>
<td></td>
<td>Complete the general university requirements. (p. 106)</td>
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<tr>
<td></td>
<td>A.A.S. Degree Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the A.A.S. degree requirements. (p. 111)</td>
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</tr>
<tr>
<td>COJO F131X</td>
<td>Fundamentals of Oral Communication: Group Context</td>
<td>3</td>
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<tr>
<td>or COJO F141X</td>
<td>Fundamentals of Oral Communication: Public Context</td>
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<tr>
<td>WRTG F111X</td>
<td>Writing Across Contexts</td>
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<tr>
<td>WRTG F212X</td>
<td>Writing and the Professions</td>
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<td></td>
<td>Apprenticeship Technologies Program Requirements</td>
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<tr>
<td></td>
<td>Complete one of the following:</td>
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<tr>
<td>MATH F105</td>
<td>Intermediate Algebra</td>
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</tr>
<tr>
<td>STAT F200X</td>
<td>Elementary Statistics</td>
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<tr>
<td>Any MATH course at the 100 level or higher</td>
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<tr>
<td></td>
<td>Complete one of the following:</td>
<td>3</td>
</tr>
<tr>
<td>ABUS F154</td>
<td>Human Relations</td>
<td></td>
</tr>
<tr>
<td>ANTH F100X</td>
<td>Individual, Society and Culture</td>
<td></td>
</tr>
<tr>
<td>SOC F101X</td>
<td>Introduction to Sociology</td>
<td></td>
</tr>
<tr>
<td>Safety, computer, business, technical or other advisor-approved courses linked to an identified education or career pathway</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Approved apprenticeship program transfer of credit maximum</td>
<td>38</td>
<td></td>
</tr>
<tr>
<td>Electives to complete 60 credits as needed</td>
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</tbody>
</table>

Associate of Arts

A.A. Degree

The Associate of Arts degree is offered at all UAF campuses. The degree offers a rigorous program of study for the serious student who eventually intends to transfer to a bachelor's degree program. The degree may serve as a starting point for a career or as a steppingstone to a bachelor's program. You may earn only one A.A. degree.

Minimum Requirements for Associate of Arts Degree: 60 credits

<table>
<thead>
<tr>
<th>Code</th>
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<tr>
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</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (p. 106)</td>
<td></td>
</tr>
</tbody>
</table>
A.A. Degree Requirements
Complete the A.A. degree requirements. (p. 109)

Associate of Science
A.S. Degree
The Associate of Science degree represents the completion of a broad-based course of study with an emphasis in the sciences. This degree may serve as a stepping-stone to a science-related baccalaureate program. You may earn only one A.S. degree.

Minimum Requirements for Associate of Science Degree: 60 credits

College of Rural and Community Development
Associate of Science Degree (http://www.uaf.edu/iac/associateofsciencedegree/)
907-474-7143

Program Requirements
Students must earn a C- grade or better in each course.

Minimum Requirements for Associate of Science Degree: 60 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
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<td>General University Requirements</td>
<td></td>
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<td>Complete the general university requirements. (p. 106)</td>
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<tr>
<td></td>
<td>A.S. Degree Requirements</td>
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<tr>
<td></td>
<td>Complete the A.S. degree requirements. (p. 111)</td>
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</tr>
<tr>
<td></td>
<td>Concentration Area</td>
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</tr>
<tr>
<td></td>
<td>Science-focused area of study in natural science, mathematics, statistics, engineering, computer science or from a Bachelor of Science degree area as determined in coordination with your advisor</td>
<td>15</td>
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</tbody>
</table>

1 All credits for the A.S. degree must be at the 100 level or above with 20 credits at the 200 level or above. Variation in credits depends on the concentration area.

Automotive Technology
Certificate
The automotive technology program gives students the education and training to become an entry-level automotive technician. The automotive service industry is constantly changing as cars become more complicated. Highly trained technicians are needed to understand, diagnose and repair modern automobiles.

The program emphasizes hands-on training and in-class experience as students perform preventive maintenance inspections, determine causes of equipment problems and make necessary repairs and adjustments to the complex systems that make up today's cars. The certificate training qualifies students for entry-level positions within the automotive service and repair industry in the areas of electricity/electronics, brakes, suspension and alignment, and engine performance.

Successful graduates from the automotive technology program go on to careers in dealerships, independent shops, service/IM stations, fleet repair facilities and aviation ground support. Salaries vary depending on job placement and the student’s skill level.

Minimum Requirements for Automotive Technology Certificate: 34 credits

Community and Technical College
Department of Automotive Technology (http://www.ctc.uaf.edu/programs/Automotive/)
907-455-2800

Programs
Certificate
• Automotive Technology (p. 116)

Certificate, Automotive Technology
Students must earn a C grade or better in each course.

Minimum Requirements for Automotive Technology Certificate: 34 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General University Requirements</td>
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<tr>
<td></td>
<td>Complete the general university requirements. (p. 106)</td>
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<tr>
<td></td>
<td>Certificate Requirements</td>
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<tr>
<td></td>
<td>Complete the certificate requirements. (p. 108)</td>
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<tr>
<td></td>
<td>Automotive Technology Program Requirements</td>
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<tr>
<td>AUTO F102</td>
<td>Introduction to Automotive Technology</td>
<td>3</td>
</tr>
<tr>
<td>AUTO F110</td>
<td>Basic Electrical Systems</td>
<td>3</td>
</tr>
<tr>
<td>AUTO F122</td>
<td>Engine Theory and Diagnosis</td>
<td>3</td>
</tr>
<tr>
<td>AUTO F131</td>
<td>Automotive Electrical II</td>
<td>3</td>
</tr>
<tr>
<td>AUTO F150</td>
<td>Brake Systems</td>
<td>4</td>
</tr>
<tr>
<td>AUTO F162</td>
<td>Suspension Alignment</td>
<td>4</td>
</tr>
<tr>
<td>AUTO F190</td>
<td>Automotive Practicum I</td>
<td>4</td>
</tr>
<tr>
<td>AUTO F202</td>
<td>Auto Fuel and Emissions Systems</td>
<td>4</td>
</tr>
<tr>
<td>AUTO F222</td>
<td>Automotive Engine Performance</td>
<td>3</td>
</tr>
<tr>
<td>AUTO F227</td>
<td>Automotive Electrical III</td>
<td>3</td>
</tr>
</tbody>
</table>

1 As part of the certificate requirements, the communication, computation and human relations content are embedded in the major required courses for this program.

Aviation Maintenance
Certificate; A.A.S. Degree
Aviation maintenance offers an A.A.S. degree and certificates in three areas: airframe, powerplant, or airframe and powerplant.

Students who receive a certificate in airframe and powerplant may elect to complete the A.A.S. degree in aviation maintenance to enhance their employability.

Students in the airframe and powerplant certificate program may complete requirements for the Federal Aviation Administration mechanic's certificate with both airframe and powerplant ratings in as little as one year. The aviation maintenance program covers many subject areas, but it places special emphasis on those skills most sought after in the Alaska job market. Through classroom and hands-on laboratory
instruction, this intensive curriculum prepares students for entry into the aviation field. Graduates who pass the FAA examinations for the airframe and powerplant ratings usually qualify for entry-level positions in the maintenance, repair, overhaul and modification of aircraft.

Students interested in qualifying for an FAA airframe mechanic’s certificate may choose to earn only the airframe certificate. Those who wish to qualify for an FAA powerplant mechanic’s certificate may choose to earn only the powerplant certificate.

Admission to the airframe and powerplant programs is at the discretion of the program faculty and requires an interview with the faculty advisor. The program normally starts around the end of August of each year.

Minimum Requirements for Airframe and Powerplant Certificates: 31-49 credits; for Aviation Maintenance Degree: 64 credits

Community and Technical College
907-455-2800
Aviation Maintenance Program (http://www.ctc.uaf.edu/programs/amt/)

Programs
Degree
• A.A.S., Aviation Maintenance (p. 117)

Certificates
• Airframe and Powerplant (p. 117)
• Airframe (p. 117)
• Powerplant (p. 118)

A.A.S., Aviation Maintenance

Students must earn a C- grade or better in each course.

Minimum Requirements for Aviation Maintenance A.A.S. Degree: 64 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tr>
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<td>General University Requirements</td>
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<td></td>
<td>Complete the general university requirements. (p. 106)</td>
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<tr>
<td></td>
<td>A.A.S. Degree Requirements</td>
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</tr>
<tr>
<td></td>
<td>Complete the A.A.S. degree requirements. (p. 111)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Aviation Maintenance Program Requirements</td>
<td>(p. 117)</td>
</tr>
<tr>
<td>AFPM F145</td>
<td>Basic Mathematics</td>
<td>2</td>
</tr>
<tr>
<td>AFPM F146</td>
<td>Basic Electricity</td>
<td>2</td>
</tr>
<tr>
<td>AFPM F147</td>
<td>Physics for Mechanics</td>
<td>0.5</td>
</tr>
<tr>
<td>AFPM F148</td>
<td>Aircraft Drawing</td>
<td>1</td>
</tr>
<tr>
<td>AFPM F149</td>
<td>Fluid Lines and Fittings</td>
<td>0.5</td>
</tr>
<tr>
<td>AFPM F150</td>
<td>Materials and Processes</td>
<td>2</td>
</tr>
<tr>
<td>AFPM F151</td>
<td>Cleaning and Corrosion Control</td>
<td>1</td>
</tr>
<tr>
<td>AFPM F152</td>
<td>Federal Aviation Regulations</td>
<td>1</td>
</tr>
<tr>
<td>AFPM F153</td>
<td>Weight and Balance</td>
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</tr>
<tr>
<td>AFPM F154</td>
<td>Ground Operations and Servicing</td>
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Airframe Structures Requirements

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<tr>
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<tbody>
<tr>
<td>AFPM F261</td>
<td>Nonmetallic Structures</td>
<td>1</td>
</tr>
<tr>
<td>AFPM F262</td>
<td>Aircraft Coverings</td>
<td>1</td>
</tr>
<tr>
<td>AFPM F263</td>
<td>Aircraft Finishes</td>
<td>0.5</td>
</tr>
<tr>
<td>AFPM F264</td>
<td>Sheet Metal Structures</td>
<td>3</td>
</tr>
<tr>
<td>AFPM F265</td>
<td>Aircraft Welding</td>
<td>1.5</td>
</tr>
<tr>
<td>AFPM F266</td>
<td>Assembly and Rigging</td>
<td>1.5</td>
</tr>
<tr>
<td>AFPM F267</td>
<td>Airframe Inspections</td>
<td>0.5</td>
</tr>
<tr>
<td>AFPM F270</td>
<td>Airframe Testing</td>
<td>0.5</td>
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</table>

Airframe Systems and Components Requirements

<table>
<thead>
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<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>AFPM F230</td>
<td>Aircraft Electrical Systems</td>
<td>2.5</td>
</tr>
<tr>
<td>AFPM F253</td>
<td>Transport Category Aircraft</td>
<td>1</td>
</tr>
<tr>
<td>AFPM F254</td>
<td>Ice and Rain Control Systems</td>
<td>0.5</td>
</tr>
<tr>
<td>AFPM F256</td>
<td>Communications and Navigation Systems</td>
<td>0.5</td>
</tr>
<tr>
<td>AFPM F258</td>
<td>Cabin Atmosphere Control Systems</td>
<td>1</td>
</tr>
<tr>
<td>AFPM F259</td>
<td>Hydraulic and Pneumatic Systems</td>
<td>1.5</td>
</tr>
<tr>
<td>AFPM F260</td>
<td>Aircraft Landing Gear Systems</td>
<td>1.5</td>
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</table>

Combined Systems and Components Requirements

<table>
<thead>
<tr>
<th>Code</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>AFPM F251</td>
<td>Fuel Systems</td>
<td>1.5</td>
</tr>
<tr>
<td>AFPM F255</td>
<td>Fire Protection Systems</td>
<td>0.5</td>
</tr>
<tr>
<td>AFPM F257</td>
<td>Instrument Systems</td>
<td>0.5</td>
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</table>

1 As part of the certificate requirements, the communication, computation and human relations content is embedded in the major required courses for this program.

Certificate, Airframe and Powerplant

Minimum Requirements for Airframe and Powerplant Certificate: 49 credits

<table>
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<tr>
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<td>Complete the general university requirements. (p. 106)</td>
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<tr>
<td></td>
<td>Certificate Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the certificate requirements. (p. 108)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Airframe and Powerplant Program Requirements</td>
<td></td>
</tr>
<tr>
<td>AFPM F145</td>
<td>Basic Mathematics</td>
<td>1</td>
</tr>
<tr>
<td>AFPM F146</td>
<td>Basic Electricity</td>
<td>2</td>
</tr>
<tr>
<td>AFPM F147</td>
<td>Physics for Mechanics</td>
<td>0.5</td>
</tr>
<tr>
<td>AFPM F148</td>
<td>Aircraft Drawing</td>
<td>1</td>
</tr>
<tr>
<td>AFPM F149</td>
<td>Fluid Lines and Fittings</td>
<td>0.5</td>
</tr>
<tr>
<td>AFPM F150</td>
<td>Materials and Processes</td>
<td>2</td>
</tr>
<tr>
<td>AFPM F151</td>
<td>Cleaning and Corrosion Control</td>
<td>1</td>
</tr>
</tbody>
</table>
AFPM F152 Federal Aviation Regulations 1
AFPM F153 Weight and Balance 1
AFPM F154 Ground Operations and Servicing 0.5

**Airframe Structures Requirements**
AFPM F261 Nonmetallic Structures 1
AFPM F262 Aircraft Coverings 1
AFPM F263 Aircraft Finishes 0.5
AFPM F264 Sheet Metal Structures 3
AFPM F265 Aircraft Welding 1.5
AFPM F266 Assembly and Rigging 1.5
AFPM F267 Airframe Inspections 0.5
AFPM F270 Airframe Testing 0.5

**Airframe Systems and Components Requirements**
AFPM F230 Aircraft Electrical Systems 2.5
AFPM F235 Aircraft Reciprocating Engines 4.5
AFPM F240 Turbine Engines 2
AFPM F271 Powerplant Inspections 0.5
AFPM F272 Powerplant Testing 0.5

**Powerplant Theory and Maintenance Requirements**
AFPM F235 Aircraft Reciprocating Engines 4.5
AFPM F240 Turbine Engines 2
AFPM F271 Powerplant Inspections 0.5
AFPM F272 Powerplant Testing 0.5

**Powerplant and Systems Components Requirements**
AFPM F231 Powerplant Electrical Systems 1.5
AFPM F244 Lubricating Systems 1.5
AFPM F245 Ignition Systems 2
AFPM F246 Fuel Metering Systems 2
AFPM F248 Induction Systems 0.5
AFPM F249 Powerplant Cooling Systems 0.5
AFPM F250 Powerplant Exhaust Systems 0.5
AFPM F252 Propellers 2

**Combined Systems and Components Requirements**
AFPM F251 Fuel Systems 1.5
AFPM F255 Fire Protection Systems 0.5
AFPM F257 Instrument Systems 0.5

**Certificate Requirements**
Complete the certificate requirements. (p. 108)

**Powerplant Program Requirements**
AFPM F145 Basic Mathematics 1
AFPM F146 Basic Electricity 2
AFPM F147 Physics for Mechanics 0.5
AFPM F148 Aircraft Drawing 1
AFPM F149 Fluid Lines and Fittings 0.5
AFPM F150 Materials and Processes 2
AFPM F151 Cleaning and Corrosion Control 1
AFPM F152 Federal Aviation Regulations 1
AFPM F153 Weight and Balance 1
AFPM F154 Ground Operations and Servicing 0.5

**Powerplant Theory and Maintenance Requirements**
AFPM F235 Aircraft Reciprocating Engines 4.5
AFPM F240 Turbine Engines 2
AFPM F271 Powerplant Inspections 0.5
AFPM F272 Powerplant Testing 0.5

**Powerplant and Systems Components Requirements**
AFPM F231 Powerplant Electrical Systems 1.5
AFPM F244 Lubricating Systems 1.5
AFPM F245 Ignition Systems 2
AFPM F246 Fuel Metering Systems 2
AFPM F248 Induction Systems 0.5
AFPM F249 Powerplant Cooling Systems 0.5
AFPM F250 Powerplant Exhaust Systems 0.5
AFPM F252 Propellers 2

**Combined Systems and Components Requirements**
AFPM F251 Fuel Systems 1.5
AFPM F255 Fire Protection Systems 0.5
AFPM F257 Instrument Systems 0.5

---

As part of the certificate requirements, the communication, computation and human relations content is embedded in the major required courses for this program.

**Certificate, Powerplant**

Students must earn a C- or better in each course.

**Minimum Requirements for Powerplant Certificate: 31 credits**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General University Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (p. 106)</td>
<td></td>
</tr>
</tbody>
</table>

---

**Note:** This is a one-year program, usually starting at the beginning of September. Entry at other times is allowed only with departmental approval. A personal background check and drug test will be required prior to acceptance into the airframe and powerplant, airframe or powerplant certificate programs.

---

**Business Management, Applied Certificate**

Planning and preparation are keys to success in business. The applied business management certificate provides students with the basic principles to run a business effectively. Graduates of the program will have the foundation of contemporary management skills to successfully lead private, public and nonprofit organizations through ever-changing social and economic conditions.

The program covers basic knowledge and skills, emerging technologies, advanced procedures and interpersonal skills. Course work includes accounting, management, human relations, math, communications, customer service, computers, law, finance and logic. The curriculum also
serves as the first year of training toward the A.A.S. degree in applied business.

Potential careers for graduates include entrepreneurship and entry-level positions in business management, tourism, human resources, public administration and office administration.

Minimum Requirements for Applied Business Management Certificate: 30-36 credits

Community and Technical College
907-455-2800
CTC Applied Business Programs (https://www.ctc.uaf.edu/programs/business-applied/)

### Programs

#### Certificate

- Business Management, Applied (p. 119)

With concentrations in:

- Computer Applications (p. 119)
- Finance (p. 119)
- General Business (p. 119)
- Human Resources (p. 120)
- Marketing (p. 120)
- Office Administration (p. 120)
- Public Management (p. 120)
- Recreational Guiding (p. 120)
- Retail Management (p. 120)
- Tourism (p. 120)

### Certificate, Business Management, Applied

Students must earn a C- grade or better in each course.

#### Minimum Requirements for Applied Business Management Certificate: 30-36 credits

**CONCENTRATIONS:** COMPUTER APPLICATIONS (P. 119), FINANCE (P. 119), GENERAL BUSINESS (P. 119), HUMAN RESOURCES (P. 120), MARKETING (P. 120), OFFICE ADMINISTRATION (P. 120), PUBLIC MANAGEMENT (P. 120), RECREATIONAL GUIDING (P. 120), RETAIL MANAGEMENT (P. 120) AND TOURISM (P. 120)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General University Requirements</td>
<td>Complete the general university requirements. (p. 106)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certificate Requirements</td>
<td>Complete one of the following:</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABUS F170</td>
<td>Business English</td>
<td>3</td>
</tr>
<tr>
<td>ABUS F271</td>
<td>Business Communications</td>
<td></td>
</tr>
</tbody>
</table>

## WRTG F111X

Writing Across Contexts

**Computation**

- ABUS F155 Business Math (or any MATH course at the F100 level or above) 3
- or MATH F105 Intermediate Algebra

**Human Relations**

- ABUS F154 Human Relations (recommended) 3

### Applied Business Management Program Requirements

- ABUS F101 Principles of Accounting I 3
- ABUS F161 Personal and Business Finance 3
- BA F151X Introduction to Business 3

### Concentrations

Complete one of the following concentrations: 12-18 credits

- Computer Applications
  - Finance
  - General Business
  - Human Resources
  - Marketing
  - Office Administration
  - Public Management
  - Recreational Guiding
  - Retail Management
  - Tourism

1. A.A.S. Approved Course

## CONCENTRATIONS

### Computer Applications

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIOS F130</td>
<td>Microcomputer Word Processing</td>
<td>3</td>
</tr>
<tr>
<td>CIOS F135</td>
<td>Microcomputer Spreadsheets</td>
<td>3</td>
</tr>
<tr>
<td>CIOS F146</td>
<td>Using Internet Tools and Technologies</td>
<td>3</td>
</tr>
<tr>
<td>or CITS F220</td>
<td>Implementing Internet Tools and Technologies</td>
<td></td>
</tr>
<tr>
<td>CIOS F240</td>
<td>Microcomputer Databases</td>
<td>3</td>
</tr>
</tbody>
</table>

### Finance

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABUS F160</td>
<td>Principles of Banking</td>
<td>3</td>
</tr>
<tr>
<td>ABUS F210</td>
<td>Income Tax</td>
<td>3</td>
</tr>
<tr>
<td>ABUS F233</td>
<td>Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>ABUS F234</td>
<td>Introduction to Investing</td>
<td>3</td>
</tr>
</tbody>
</table>

### General Business

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABUS F179</td>
<td>Fundamentals of Supervision</td>
<td>3</td>
</tr>
<tr>
<td>or BA F307</td>
<td>Introductory Human Resources Management</td>
<td></td>
</tr>
<tr>
<td>ABUS F201</td>
<td>Principles of Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>or ABUS F210</td>
<td>Income Tax</td>
<td></td>
</tr>
<tr>
<td>or ABUS F220</td>
<td>Microcomputer Accounting: QuickBooks</td>
<td></td>
</tr>
<tr>
<td>or ABUS F235</td>
<td>Fund Accounting for Nonprofits</td>
<td></td>
</tr>
<tr>
<td>ABUS F232</td>
<td>Contemporary Management Issues</td>
<td>3</td>
</tr>
<tr>
<td>Code</td>
<td>Title</td>
<td>Credits</td>
</tr>
<tr>
<td>---------</td>
<td>--------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>ABUS F260</td>
<td>Marketing Practices</td>
<td>3</td>
</tr>
<tr>
<td>or ABUS F263</td>
<td>Public Relations</td>
<td></td>
</tr>
<tr>
<td>or BA F343</td>
<td>Principles of Marketing</td>
<td></td>
</tr>
</tbody>
</table>

**Human Resources**

Complete the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ABUS F141</td>
<td>Payroll Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ABUS F179</td>
<td>Fundamentals of Supervision</td>
<td>3</td>
</tr>
<tr>
<td>ABUS F231</td>
<td>Introduction to Personnel</td>
<td>3</td>
</tr>
<tr>
<td>or BA F307</td>
<td>Introductory Human Resources Management</td>
<td></td>
</tr>
<tr>
<td>ABUS F242</td>
<td>Employment Law</td>
<td>3</td>
</tr>
<tr>
<td>or BA F317</td>
<td>Employment Law</td>
<td></td>
</tr>
</tbody>
</table>

**Marketing**

Complete the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABUS F175</td>
<td>Customer Service</td>
<td>3</td>
</tr>
<tr>
<td>ABUS F178</td>
<td>Professionalism</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete one of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABUS F260</td>
<td>Marketing Practices</td>
<td>3</td>
</tr>
<tr>
<td>ABUS F263</td>
<td>Public Relations</td>
<td></td>
</tr>
<tr>
<td>BA F343</td>
<td>Principles of Marketing</td>
<td></td>
</tr>
<tr>
<td>CIOS F2xx-level graphics or web design elective</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

**Office Administration**

Complete the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABUS F170</td>
<td>Business English</td>
<td>3</td>
</tr>
<tr>
<td>ABUS F182</td>
<td>Office Procedures</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete six credits from the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABUS F183</td>
<td>Professional Skills for Job Hunt</td>
<td></td>
</tr>
<tr>
<td>ABUS F199</td>
<td>Practicum in Applied Business</td>
<td></td>
</tr>
<tr>
<td>CIOS F130</td>
<td>Microcomputer Word Processing</td>
<td></td>
</tr>
<tr>
<td>CIOS F135</td>
<td>Microcomputer Spreadsheets</td>
<td></td>
</tr>
<tr>
<td>CIOS F150</td>
<td>Computer Business Applications</td>
<td></td>
</tr>
<tr>
<td>CIOS F150</td>
<td>Computer Business Applications</td>
<td></td>
</tr>
</tbody>
</table>

**Public Management**

Complete the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABUS F235</td>
<td>Fund Accounting for Nonprofits</td>
<td>3</td>
</tr>
<tr>
<td>PS F100X</td>
<td>Political Economy</td>
<td>3</td>
</tr>
<tr>
<td>PS F101X</td>
<td>Introduction to American Government</td>
<td>3</td>
</tr>
<tr>
<td>or ABUS F232</td>
<td>Contemporary Management Issues</td>
<td></td>
</tr>
<tr>
<td>PS F212</td>
<td>Introduction to Public Administration</td>
<td>3</td>
</tr>
</tbody>
</table>

**Recreational Guiding**

Complete the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABUS F175</td>
<td>Customer Service</td>
<td>3</td>
</tr>
<tr>
<td>NRM F161</td>
<td>Wilderness Leadership Education</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete one of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMS F152</td>
<td>Emergency Trauma Training First Responder</td>
<td></td>
</tr>
<tr>
<td>More advanced Emergency First Responder Training</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

**Retail Management**

Complete the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABUS F179</td>
<td>Fundamentals of Supervision</td>
<td>3</td>
</tr>
<tr>
<td>or BA A231</td>
<td>Fundamentals of Supervision</td>
<td></td>
</tr>
<tr>
<td>ABUS F231</td>
<td>Introduction to Personnel</td>
<td>3</td>
</tr>
<tr>
<td>ABUS F260</td>
<td>Marketing Practices</td>
<td>3</td>
</tr>
<tr>
<td>or BA A260</td>
<td>Marketing Practices</td>
<td></td>
</tr>
<tr>
<td>BA A266</td>
<td>Retailing Management</td>
<td>3</td>
</tr>
<tr>
<td>CIOS F150</td>
<td>Computer Business Applications</td>
<td>3</td>
</tr>
<tr>
<td>or CIOS A103</td>
<td>Introduction to Personal Computers</td>
<td></td>
</tr>
</tbody>
</table>

Complete one of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COJO F101X</td>
<td>Media and Culture</td>
<td></td>
</tr>
<tr>
<td>COJO F121X</td>
<td>Introduction to Interpersonal</td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COJO F131X</td>
<td>Fundamentals of Oral Communication:</td>
<td></td>
</tr>
<tr>
<td>Group Context</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COJO F141X</td>
<td>Fundamentals of Oral Communication:</td>
<td></td>
</tr>
<tr>
<td>Public Context</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CIOS A261A</td>
<td>Interpersonal Skills in Organization</td>
<td></td>
</tr>
<tr>
<td>COMM A111</td>
<td>Fundamentals of Oral Communication</td>
<td>1</td>
</tr>
<tr>
<td>COMM A237</td>
<td>Interpersonal Communication</td>
<td>1</td>
</tr>
</tbody>
</table>

1 Courses offered via distance delivery from University of Alaska Anchorage

**Tourism**

Complete the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABUS F158</td>
<td>Introduction to Tourism</td>
<td>3</td>
</tr>
<tr>
<td>ABUS F175</td>
<td>Customer Service</td>
<td>3</td>
</tr>
<tr>
<td>ABUS F199</td>
<td>Practicum in Applied Business</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete one of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABUS F256</td>
<td>Small Hotel, Bed and Breakfast, and</td>
<td></td>
</tr>
<tr>
<td>Lodge Operations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ABUS F267</td>
<td>Transportation and Logistics</td>
<td></td>
</tr>
<tr>
<td>Management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ABUS F269</td>
<td>Food and Beverage Management</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Other courses specific to individual education and career goals may be substituted with program approval.

**Business, Applied**

**A.A.S. Degree**

The Associate of Applied Science (A.A.S.) degree in applied business is a two-year program designed to provide students with a well-rounded business education covering a wide range of related subjects. Students who have completed the business management certificate will be able to apply their credits towards the A.A.S. degree in applied business.
Students will complete courses that will advance their business knowledge of supervision, human resources, management issues, business law, and marketing and public relations. Additionally, the program provides the opportunity for students to focus their studies in any one of the following 12 concentration areas: Administrative Management, Applied Management, Computer Applications, Entrepreneurship, Finance, Health Care Management, Human Resources, Management, Marketing, Public Management, Recreation and Guiding Management, and Tourism.

Minimum Requirements for Applied Business A.A.S. Degree: 60 credits

Community and Technical College
907-455-2800
https://www.ctc.uaf.edu/programs/business-applied/

Programs

Degree

• A.A.S., Business, Applied (p. 121)

With concentrations in:

• Administrative Management (p. 121)
• Applied Management (p. 122)
• Computer Applications (p. 122)
• Entrepreneurship (p. 122)
• Finance (p. 122)
• Health Care Management (p. 122)
• Human Resources (p. 122)
• Management (p. 122)
• Marketing (p. 122)
• Public Management (p. 123)
• Recreation and Guiding Management (p. 123)
• Tourism (p. 123)

A.A.S., Business, Applied

Students must earn a C- grade or better in each course.

Minimum Requirements for Applied Business A.A.S. Degree: 60 credits

Concentrations: Administrative Management (p. 121), Applied Management (p. 122), Computer Applications (p. 122), Entrepreneurship (p. 122), Finance (p. 122), Health Care Management (p. 122), Human Resources (p. 122), Management (p. 122), Marketing (p. 122), Public Management (p. 123), Recreation and Guiding Management (p. 123), and Tourism (p. 123)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General University Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (p. 106)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A.A.S. Degree Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the A.A.S. degree requirements. (p. 111)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Applied Business Program Requirements</td>
<td></td>
</tr>
</tbody>
</table>

1 As part of the A.A.S. degree requirements, it is recommended that students complete ABUS F154 for the human relations requirement.

Concentrations

Administrative Management

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ABUS F101 Principles of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ABUS F161 Personal and Business Finance</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ABUS F175 Customer Service</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>or ABUS F183 Professional Skills for Job Hunt</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ABUS F179 Fundamentals of Supervision</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>or BA F307 Introductory Human Resources Management</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>BA F151X Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Complete one of the following:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ABUS F232 Contemporary Management Issues</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>or ABUS F277 Dynamics of Leadership</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ECON F201X Principles of Economics I:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Microeconomics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ECON F202X Principles of Economics II:</td>
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</tr>
<tr>
<td></td>
<td>Macroeconomics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete one of the following:</td>
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</tr>
<tr>
<td></td>
<td>ABUS F241 Applied Business Law I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ABUS F242 Employment Law</td>
<td></td>
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<tr>
<td></td>
<td>BA F317 Employment Law</td>
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</tr>
<tr>
<td></td>
<td>Complete one of the following:</td>
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</tr>
<tr>
<td></td>
<td>ABUS F260 Marketing Practices</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ABUS F263 Public Relations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BA F343 Principles of Marketing</td>
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</table>

Complete the following concentrations: 21

Administrative Management
• Applied Management
• Computer Applications
• Entrepreneurship
• Finance
• Health Care Management
• Human Resources
• Management
• Marketing
• Public Management
• Recreation and Guiding Management
• Tourism
**APPLIED MANAGEMENT**

<table>
<thead>
<tr>
<th>Code</th>
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<tr>
<td>Complete one of the following: 21</td>
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<td></td>
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<tr>
<td>A university-approved certificate</td>
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</table>
| A professional, technical or vocational license or certification issued by government or industry and 21 department-approved electives

**COMPUTER APPLICATIONS**

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Complete the following:</td>
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<tr>
<td>CIOS F130</td>
<td>Microcomputer Word Processing</td>
<td>3</td>
</tr>
<tr>
<td>CIOS F135</td>
<td>Microcomputer Spreadsheets</td>
<td>3</td>
</tr>
<tr>
<td>CIOS F146</td>
<td>Using Internet Tools and Technologies</td>
<td>3</td>
</tr>
<tr>
<td>or CITS F220</td>
<td>Implementing Internet Tools and Technologies</td>
<td></td>
</tr>
<tr>
<td>CIOS F233</td>
<td>Desktop Publishing</td>
<td>3</td>
</tr>
<tr>
<td>or CIOS F255</td>
<td>Digital Graphics</td>
<td></td>
</tr>
<tr>
<td>CIOS F240</td>
<td>Microcomputer Databases</td>
<td>3</td>
</tr>
<tr>
<td>ABUS, ACCT, BA, CITS or CIOS electives</td>
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**ENTREPRENEURSHIP**

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</tr>
<tr>
<td>ABUS F233</td>
<td>Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>or ABUS F234</td>
<td>Introduction to Investing</td>
<td></td>
</tr>
<tr>
<td>ABUS F265</td>
<td>Seminar in Applied Marketing</td>
<td>3</td>
</tr>
<tr>
<td>ABUS F272</td>
<td>Small-Business Planning</td>
<td>3</td>
</tr>
<tr>
<td>ABUS F273</td>
<td>Managing a Small Business</td>
<td>3</td>
</tr>
<tr>
<td>ABUS F274</td>
<td>Business in the Digital World</td>
<td>3</td>
</tr>
<tr>
<td>ABUS, ACCT, BA, CITS or CIOS electives</td>
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<tr>
<td>Complete one of the following: 3</td>
<td></td>
<td></td>
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<tr>
<td>ABUS F201</td>
<td>Principles of Accounting II</td>
<td></td>
</tr>
<tr>
<td>ABUS F210</td>
<td>Income Tax</td>
<td></td>
</tr>
<tr>
<td>ABUS F220</td>
<td>Microcomputer Accounting: QuickBooks</td>
<td></td>
</tr>
<tr>
<td>ABUS F235</td>
<td>Fund Accounting for Nonprofits</td>
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**FINANCE**

<table>
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<tr>
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<tr>
<td>ABUS F160</td>
<td>Principles of Banking</td>
<td>3</td>
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<tr>
<td>ABUS F201</td>
<td>Principles of Accounting II</td>
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</tr>
<tr>
<td>ABUS F210</td>
<td>Income Tax</td>
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<tr>
<td>ABUS F220</td>
<td>Microcomputer Accounting: QuickBooks</td>
<td>3</td>
</tr>
<tr>
<td>ABUS F233</td>
<td>Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>ABUS F234</td>
<td>Introduction to Investing</td>
<td>3</td>
</tr>
<tr>
<td>ABUS F272</td>
<td>Small-Business Planning</td>
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</tr>
</tbody>
</table>

**HEALTH CARE MANAGEMENT**

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<tr>
<td>Complete the following:</td>
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<tr>
<td>HLTH F100</td>
<td>Medical Terminology</td>
<td>3</td>
</tr>
<tr>
<td>HLTH F110</td>
<td>Professional Skills for the Workplace</td>
<td>2</td>
</tr>
<tr>
<td>HLTH F132</td>
<td>Administrative Procedures I</td>
<td>2</td>
</tr>
<tr>
<td>HLTH F208</td>
<td>Human Diseases</td>
<td>3</td>
</tr>
<tr>
<td>HLTH F234</td>
<td>Administrative Procedures II</td>
<td>4</td>
</tr>
<tr>
<td>HLTH F235</td>
<td>Medical Coding</td>
<td>4</td>
</tr>
<tr>
<td>HLTH F236</td>
<td>Outpatient Health Care Reimbursement</td>
<td>3</td>
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**HUMAN RESOURCES**

<table>
<thead>
<tr>
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<th>Credits</th>
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<tbody>
<tr>
<td>Complete the following:</td>
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</tr>
<tr>
<td>ABUS F141</td>
<td>Payroll Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ABUS F178</td>
<td>Professionalism</td>
<td>3</td>
</tr>
<tr>
<td>ABUS F231</td>
<td>Introduction to Personnel</td>
<td>3</td>
</tr>
<tr>
<td>or BA F307</td>
<td>Introductory Human Resources Management</td>
<td></td>
</tr>
<tr>
<td>ABUS F242</td>
<td>Employment Law</td>
<td>3</td>
</tr>
<tr>
<td>or BA F317</td>
<td>Employment Law</td>
<td></td>
</tr>
<tr>
<td>CIOS F135</td>
<td>Microcomputer Spreadsheets</td>
<td>3</td>
</tr>
<tr>
<td>CIOS F240</td>
<td>Microcomputer Databases</td>
<td>3</td>
</tr>
<tr>
<td>ABUS, ACCT, BA or CIOS electives</td>
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**MANAGEMENT**

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Complete the following:</td>
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<tr>
<td>ABUS, ACCT, BA, ECON, MATH or STAT or other department-approved electives</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>Recommended courses include:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ABUS F201</td>
<td>Principles of Accounting II</td>
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</tr>
<tr>
<td>ABUS F202</td>
<td>Principles of Accounting III</td>
<td></td>
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<tr>
<td>BA F254X</td>
<td>Personal Finance (s)</td>
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<tr>
<td>ECON F100X</td>
<td>Introduction to Economic Analysis</td>
<td></td>
</tr>
<tr>
<td>ECON F201X</td>
<td>Principles of Economics I: Microeconomics</td>
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<tr>
<td>ECON F202X</td>
<td>Principles of Economics II: Macroeconomics</td>
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<tr>
<td>ECON F227</td>
<td>Introductory Statistics for Economics and Business</td>
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<tr>
<td>MATH F122X</td>
<td>Essential Precalculus with Applications</td>
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<tr>
<td>MATH F230X</td>
<td>Essential Calculus with Applications</td>
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<tr>
<td>STAT F200X</td>
<td>Elementary Statistics</td>
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**MARKETING**

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Complete the following:</td>
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</tr>
<tr>
<td>ABUS F178</td>
<td>Professionalism</td>
<td>3</td>
</tr>
<tr>
<td>ABUS F265</td>
<td>Seminar in Applied Marketing</td>
<td>3</td>
</tr>
<tr>
<td>ABUS F274</td>
<td>Business in the Digital World</td>
<td>3</td>
</tr>
<tr>
<td>CIOS F233</td>
<td>Desktop Publishing</td>
<td>3</td>
</tr>
<tr>
<td>or CIOS F255</td>
<td>Digital Graphics</td>
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</tbody>
</table>
CIOS or CITS F200 level or above Internet or web design elective
ABUS, BA or CIOS electives

<table>
<thead>
<tr>
<th>PUBLIC MANAGEMENT</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ABUS F235</td>
<td>Fund Accounting for Nonprofits</td>
<td>3</td>
</tr>
<tr>
<td>PS F100X</td>
<td>Political Economy</td>
<td>3</td>
</tr>
<tr>
<td>PS F101X</td>
<td>Introduction to American Government and Politics</td>
<td>3</td>
</tr>
<tr>
<td>PS F212</td>
<td>Introduction to Public Administration</td>
<td>3</td>
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<tr>
<td>ABUS, ACCT, CIOS or PS electives</td>
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Complete one of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>ABUS F242</td>
<td>Employment Law</td>
</tr>
<tr>
<td>BA F317</td>
<td>Employment Law</td>
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<tr>
<td>PS F403</td>
<td>Public Policy</td>
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<table>
<thead>
<tr>
<th>RECREATION AND GUIDING MANAGEMENT</th>
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<th>Credits</th>
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<tr>
<td>ABUS F158</td>
<td>Introduction to Tourism</td>
<td>3</td>
</tr>
<tr>
<td>EMS F257</td>
<td>Arctic Survival</td>
<td>3</td>
</tr>
<tr>
<td>or NRM F361</td>
<td>Advanced Wilderness Leadership Education</td>
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<tr>
<td>NRM F101</td>
<td>Natural Resources Conservation and Policy</td>
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<tr>
<td>NRM F161</td>
<td>Wilderness Leadership Education</td>
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<td>RECR electives</td>
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Complete one of the following:

<table>
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<tr>
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<tbody>
<tr>
<td>EMS F152</td>
<td>Emergency Trauma Training First Responder</td>
</tr>
<tr>
<td>EMS F195</td>
<td>Special Topics</td>
</tr>
<tr>
<td></td>
<td>More advanced Emergency First Responder Training</td>
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</table>

<table>
<thead>
<tr>
<th>TOURISM</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABUS F158</td>
<td>Introduction to Tourism</td>
<td>3</td>
</tr>
<tr>
<td>ABUS F199</td>
<td>Practicum in Applied Business</td>
<td>3</td>
</tr>
<tr>
<td>ABUS F265</td>
<td>Seminar in Applied Marketing</td>
<td>3</td>
</tr>
<tr>
<td>ABUS F273</td>
<td>Managing a Small Business</td>
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Complete 3 credits from the following electives:

<table>
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<tr>
<th>Code</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>ABUS F256</td>
<td>Small Hotel, Bed and Breakfast, and Lodge Operations</td>
</tr>
<tr>
<td>ABUS F267</td>
<td>Transportation and Logistics Management</td>
</tr>
<tr>
<td>ABUS F269</td>
<td>Food and Beverage Management</td>
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</table>

Complete one of the following elective options:

<table>
<thead>
<tr>
<th>Option</th>
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<tbody>
<tr>
<td>1</td>
<td>ABUS, ACCT, BA, CAH or CIOS electives</td>
</tr>
<tr>
<td>2</td>
<td>ABUS, ACCT, BA, CAH or CIOS electives</td>
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</table>

<table>
<thead>
<tr>
<th>Code</th>
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</thead>
<tbody>
<tr>
<td>ABUS F299</td>
<td>Practicum in Applied Business (Study Abroad)</td>
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</table>

Foreign Language

**Community Health**

**Certificate; A.A.S. Degree**

The community health aide/practitioner (CHA/P) training program prepares students to provide primary health care services in villages, under the supervision of a referral physician. As a prerequisite, students entering the program must be employed by a regional health corporation.

The educational program consists of four basic training sessions, each four weeks long and followed by a field component in the community health aide's village clinic. The curriculum includes the knowledge and skills necessary to provide acute care for common medical problems, emergency care, follow-up care for patients with chronic illnesses, and preventive services including prenatal and well-child care. The training also includes state-approved emergency care courses, completion of a skills checklist, a supervised clinical preceptorship, and passing the community health practitioner (CHP) statewide examination.

Upon successful completion of all certification requirements, students are awarded a CHP certificate by the training center. Students completing the training program also meet the requirements for a university certificate recognizing the credits earned. These credits may be used to satisfy requirements for the A.A.S. degree.

The CHA/P academic review committee (ARC), composed of representatives from the regional health corporations, training centers and university, ensures that the curriculum and certification process is kept uniform throughout the state. The ARC reports to the Association of CHA/P program directors and serves in an advisory role to the executive dean for rural, community and Native education.

For more information about the CHA/P basic training program, contact one of the CHA/P training centers. For more information about the A.A.S. degree, contact the College of Rural and Community Development health programs office at 907-786-1630.

Minimum Requirements for Community Health Certificate: 34 credits; for Community Health A.A.S. Degree: 60 credits

<table>
<thead>
<tr>
<th>Program</th>
<th>Degree</th>
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<tbody>
<tr>
<td></td>
<td>• A.A.S., Community Health (p. 123)</td>
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</table>

**Certificate**

• Community Health (p. 124)

**A.A.S., Community Health**

Students must earn a C- grade or better in each course.
Certificate, Community Health

Minimum Requirements for Community Health A.A.S. Degree: 60 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tr>
<td></td>
<td><strong>General University Requirements</strong></td>
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<tr>
<td></td>
<td>Complete the general university requirements. (p. 106)</td>
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</tr>
<tr>
<td></td>
<td><strong>A.A.S. Degree Requirements</strong></td>
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<tr>
<td></td>
<td>Complete the A.A.S. degree requirements. (p. 111)</td>
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<tr>
<td></td>
<td><strong>Community Health Program Requirements</strong></td>
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</tr>
<tr>
<td>CHP F131</td>
<td>Community Health Aide I</td>
<td>8</td>
</tr>
<tr>
<td>CHP F132</td>
<td>Community Health Aide II</td>
<td>8</td>
</tr>
<tr>
<td>CHP F133</td>
<td>Community Health Aide III</td>
<td>8</td>
</tr>
<tr>
<td>CHP F134</td>
<td>Community Health Aide IV</td>
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<tr>
<td>CHP F135</td>
<td>Community Health Aide Preceptorship</td>
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<tr>
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<td>Complete 5 or more credits from the following:</td>
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<tr>
<td>CHP F203</td>
<td>Clinical Update for Community Health Practitioners</td>
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<tr>
<td>CHP F207</td>
<td>Maternal and Infant Health</td>
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<tr>
<td>CHP F208</td>
<td>Communicable Diseases</td>
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<tr>
<td>CHP F211</td>
<td>Health Education</td>
<td></td>
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<tr>
<td>CHP F212</td>
<td>Diabetes: Primary Prevention and Village Medical Care</td>
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<tr>
<td>CHP F214</td>
<td>Cancer: Risks, Diagnosis and Treatment</td>
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</tr>
<tr>
<td>CHP F215</td>
<td>Death and Dying</td>
<td></td>
</tr>
<tr>
<td>CHP F220</td>
<td>Women's Health: Breast and Cervical Cancer Screening</td>
<td></td>
</tr>
<tr>
<td>CHP F250</td>
<td>Current Issues in Rural Health Care 1</td>
<td></td>
</tr>
<tr>
<td>CHP F293</td>
<td>Special Topics</td>
<td></td>
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<tr>
<td>EMS — any F200-level courses</td>
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<td></td>
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<tr>
<td>HLTH — any F200-level courses</td>
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<td>Electives</td>
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1 May repeat up to 3 credits toward A.A.S. degree.

Certificate, Community Health

Minimum Requirements for Community Health Certificate: 34 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td></td>
<td><strong>General University Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (p. 106)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Certificate Requirements</strong></td>
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</tr>
<tr>
<td></td>
<td>Complete the certificate requirements. (p. 108) 1</td>
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</tr>
<tr>
<td></td>
<td><strong>Community Health Program Requirements</strong></td>
<td></td>
</tr>
<tr>
<td>CHP F131</td>
<td>Community Health Aide I</td>
<td>8</td>
</tr>
<tr>
<td>CHP F132</td>
<td>Community Health Aide II</td>
<td>8</td>
</tr>
<tr>
<td>CHP F133</td>
<td>Community Health Aide III</td>
<td>8</td>
</tr>
<tr>
<td>CHP F134</td>
<td>Community Health Aide IV</td>
<td>8</td>
</tr>
<tr>
<td>CHP F135</td>
<td>Community Health Aide Preceptorship</td>
<td>2</td>
</tr>
</tbody>
</table>

1 As part of the certificate requirements, the communication, computation and human relations content is embedded in some of the major required courses for this program.

Construction Management

A.A.S. Degree

The construction management program meets growing needs in the construction industry by training entry-level construction managers and by providing continuing education for construction employees.

Construction managers plan, direct and are responsible for oversight of construction projects. They are responsible for coordinating and managing people, materials and equipment; budgets, schedules and contracts; and the safety of employees and the general public. Construction managers determine construction means and methods and the most cost-effective plans and schedules. They track construction costs and administer contract changes to the project budget to maximize profitability. Construction managers monitor work progress to ensure compliance with architectural and engineering drawings and specifications.

Construction managers work in all phases of the construction business — for public and private owners; from small, multifamily projects to large skyscrapers and industrial projects; and from rural roads to major highways. Construction managers work closely with architects, engineers, owners and the various contractors on a construction job. The construction manager's duties are varied, challenging and rewarding.

UAF's construction management program was developed with input from local contractors and professional industry organizations. It gives students broad knowledge of building systems and construction techniques. Construction management graduates understand basic principles of business and know about the technical aspects of the construction industry. Graduates are able to function both in the construction office and on the job site.

The construction management A.A.S. degree requires four to five semesters to complete. While not a prerequisite, it is recommended that students applying for admission have experience in the construction industry.

Minimum Requirements for Construction Management Associate's Degree: 62 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>General University Requirements</strong></td>
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<tr>
<td></td>
<td>Complete the general university requirements. (p. 106)</td>
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</tr>
<tr>
<td></td>
<td><strong>A.A.S. Degree Requirements</strong></td>
<td></td>
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</tbody>
</table>

A.A.S., Construction Management

Students must earn a C- grade or better in each course.

Minimum Requirements for Construction Management A.A.S.: 62 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
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<td><strong>General University Requirements</strong></td>
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<tr>
<td></td>
<td>Complete the general university requirements. (p. 106)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>A.A.S. Degree Requirements</strong></td>
<td></td>
</tr>
</tbody>
</table>
Complete the A.A.S. degree requirements. (p. 111)

### Construction Management Program Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABUS F101</td>
<td>Principles of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ABUS F201</td>
<td>Principles of Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>CM F102</td>
<td>Methods of Building Construction</td>
<td>3</td>
</tr>
<tr>
<td>CM F123</td>
<td>Codes and Standards</td>
<td>3</td>
</tr>
<tr>
<td>CM F142</td>
<td>Mechanical and Electrical Technology</td>
<td>3</td>
</tr>
<tr>
<td>CM F163</td>
<td>Building Construction Cost Estimating</td>
<td>3</td>
</tr>
<tr>
<td>CM F201</td>
<td>Construction Project Management</td>
<td>3</td>
</tr>
<tr>
<td>CM F202</td>
<td>Project Planning and Scheduling</td>
<td>3</td>
</tr>
<tr>
<td>CM F205</td>
<td>Construction Safety</td>
<td>3</td>
</tr>
<tr>
<td>CM F213</td>
<td>Civil Technology</td>
<td>3</td>
</tr>
<tr>
<td>CM F231</td>
<td>Structural Technology</td>
<td>3</td>
</tr>
<tr>
<td>CM F263</td>
<td>Civil Construction Cost Estimating</td>
<td>3</td>
</tr>
<tr>
<td>CM F299</td>
<td>Construction Management Internship</td>
<td>3</td>
</tr>
<tr>
<td>DRT F170</td>
<td>Beginning CAD</td>
<td>3</td>
</tr>
<tr>
<td>MATH F152X</td>
<td>Trigonometry</td>
<td>3</td>
</tr>
<tr>
<td>PHYS F123X</td>
<td>College Physics I</td>
<td>4</td>
</tr>
</tbody>
</table>

1. As part of the A.A.S. degree requirement complete WRTG F111X, WRTG F212X or WRTG F213X, and COJO F131X or COJO F141X for the communications requirement, and MATH F151X for the computation requirement. The human relations content is embedded in some of the major required courses for this program.

## Construction Trades Technology Certificate

The construction trades technology program is designed to prepare students to work in the construction industry, including in locations with a projected shortage of skilled workers.

This program gives students fundamental knowledge of construction industry expectations in carpentry, facility maintenance and sustainable energy, as well as hands-on training. It responds to the skills targeted by Alaskan employers.

A strong desire to work in the construction industry is important. Students must be willing to work collaboratively with industry employees in their local communities to fulfill the practicum components of courses.

Minimum Requirements for Construction Trades Technology Certificate: 30 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTT F106</td>
<td>Construction Measuring</td>
<td>3</td>
</tr>
<tr>
<td>or TTTCH F131</td>
<td>Mathematics for the Trades</td>
<td></td>
</tr>
</tbody>
</table>

### Concentrations

Complete one of the following concentrations: 17-23.5

- **Carpentry**
- **Facility Maintenance**
- **Sustainable Energy**

1. As part of the certificate requirement, complete 3 credits each in the communication and human relations requirements.

### CONCENTRATIONS - Carpentry

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTT F110</td>
<td>Residential Carpentry I</td>
<td>8.5</td>
</tr>
<tr>
<td>or CTT F111 and CTT F112 and CTT F113 and CTT F114</td>
<td>Materials and Tools Used in the Trade and Floor Systems, Wall and Ceiling Framing and Roof Framing, Windows and Exterior Doors and Introduction to Concrete Materials and Forms</td>
<td></td>
</tr>
<tr>
<td>CTT F115</td>
<td>Residential Carpentry--Level II</td>
<td>12</td>
</tr>
<tr>
<td>or CTT F116 and CTT F117 and CTT F118 and CTT F119</td>
<td>Reading Plans and Site Layout--Level I and Exterior Finish and Moisture Protection and Roofing, Stairs and Metal Stud Applications and Drywall and Interior Finish Applications</td>
<td></td>
</tr>
<tr>
<td>CTT F199</td>
<td>Student Practicum I</td>
<td>1:3</td>
</tr>
</tbody>
</table>

### Facility Maintenance

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTT F130</td>
<td>Introduction to Facility Maintenance</td>
<td>1</td>
</tr>
<tr>
<td>CTT F131</td>
<td>Interior Repairs</td>
<td>1</td>
</tr>
<tr>
<td>CTT F132</td>
<td>Flooring Installation</td>
<td>1</td>
</tr>
<tr>
<td>CTT F133</td>
<td>Cabinet Installation with Countertops</td>
<td>1</td>
</tr>
<tr>
<td>CTT F135</td>
<td>Boiler Troubleshooting and Burner Repair</td>
<td>2</td>
</tr>
</tbody>
</table>
Certicates

• Culinary Arts (p. 127)
• Baking and Pastry Arts (p. 126)

A.A.S., Culinary Arts and Hospitality

Students must earn a C- grade or better in each course.

Minimum Requirements for Culinary Arts and Hospitality A.A.S.: 60 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAH F101</td>
<td>Introduction to the Culinary Field</td>
<td>1</td>
</tr>
<tr>
<td>CAH F140</td>
<td>Culinary I: Principles and Techniques</td>
<td>4</td>
</tr>
<tr>
<td>CAH F141</td>
<td>Culinary II: Stocks, Soups and Sauces</td>
<td>4</td>
</tr>
<tr>
<td>CAH F146</td>
<td>Introduction to Baking and Pastry</td>
<td>4</td>
</tr>
<tr>
<td>CAH F150</td>
<td>Food Service Sanitation</td>
<td>2</td>
</tr>
<tr>
<td>CAH F154</td>
<td>Food and Beverage Service</td>
<td>2</td>
</tr>
<tr>
<td>CAH F160</td>
<td>Principles of Nutrition</td>
<td>2</td>
</tr>
<tr>
<td>CAH F175</td>
<td>Protein Fabrication</td>
<td>3</td>
</tr>
<tr>
<td>CAH F199</td>
<td>Culinary Arts Internship</td>
<td>2</td>
</tr>
<tr>
<td>CAH F230</td>
<td>Menu Planning</td>
<td>1</td>
</tr>
<tr>
<td>CAH F242</td>
<td>Culinary III: Vegetables and Starch</td>
<td>4</td>
</tr>
<tr>
<td>CAH F243</td>
<td>Culinary IV: A la Carte Cookery</td>
<td>4</td>
</tr>
<tr>
<td>CAH F248</td>
<td>Intermediate Baking and Pastry</td>
<td>4</td>
</tr>
<tr>
<td>CAH F250</td>
<td>Garde Manger</td>
<td>4</td>
</tr>
<tr>
<td>CAH F253</td>
<td>Storeroom Purchasing and Receiving</td>
<td>2</td>
</tr>
<tr>
<td>CAH F256</td>
<td>Restaurant and Hospitality Cost Management</td>
<td>2</td>
</tr>
<tr>
<td>CTT F157</td>
<td>Plumbing Piping and Tools</td>
<td>2</td>
</tr>
</tbody>
</table>
| Other advisor approved courses related to the concentration

Total Credits 60

1 As part of the degree requirement, CAH F255 is recommended to complete the human relations requirement.

Culinary Arts and Hospitality Certificate; A.A.S. Degree

The culinary arts and hospitality program prepares students for careers in this ever-expanding field. Graduates can seek employment in various food service operations or in the management of restaurants, bakeries, hotels, hospitals, camps or any other facility that requires food service as part of its operation. Certificates in culinary arts or baking and pastry arts, as well as an associate degree in culinary arts, are offered.

Minimum Requirements for Culinary Arts or Baking and Pastry Arts Certificates: 30 credits; for Culinary Arts and Hospitality A.A.S. Degree: 60 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
</table>
| Community and Technical College
| 907-455-2800
| Culinary Arts and Hospitality (https://www.ctc.uaf.edu/programs/culinary-hospitality/)

Programs

Degree

• A.A.S., Culinary Arts and Hospitality (p. 126)
Certificate, Culinary Arts

Minimum Requirements for Culinary Arts Certificate: 30 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAH F101</td>
<td>Introduction to the Culinary Field</td>
<td>1</td>
</tr>
<tr>
<td>CAH F140</td>
<td>Culinary I: Principles and Techniques</td>
<td>4</td>
</tr>
<tr>
<td>CAH F146</td>
<td>Introduction to Baking and Pastry</td>
<td>4</td>
</tr>
<tr>
<td>CAH F150</td>
<td>Food Service Sanitation</td>
<td>2</td>
</tr>
<tr>
<td>Complete 10-13 credits from the following:</td>
<td></td>
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</tr>
<tr>
<td>CAH F141</td>
<td>Culinary II: Stocks, Soups and Sauces</td>
<td></td>
</tr>
<tr>
<td>CAH F154</td>
<td>Food and Beverage Service</td>
<td></td>
</tr>
<tr>
<td>CAH F160</td>
<td>Principles of Nutrition</td>
<td></td>
</tr>
<tr>
<td>CAH F170</td>
<td>Gourmet Cooking</td>
<td></td>
</tr>
<tr>
<td>CAH F172</td>
<td>Gourmet Asian Cooking</td>
<td></td>
</tr>
<tr>
<td>CAH F174</td>
<td>Vegetable Cooking</td>
<td></td>
</tr>
<tr>
<td>CAH F175</td>
<td>Protein Fabrication</td>
<td></td>
</tr>
<tr>
<td>CAH F176</td>
<td>Techniques of Healthy Cooking</td>
<td></td>
</tr>
<tr>
<td>CAH F230</td>
<td>Menu Planning</td>
<td></td>
</tr>
<tr>
<td>CAH F242</td>
<td>Culinary III: Vegetables and Starch</td>
<td></td>
</tr>
<tr>
<td>CAH F243</td>
<td>Culinary IV: A la Carte Cookery</td>
<td></td>
</tr>
<tr>
<td>CAH F250</td>
<td>Garde Manger</td>
<td></td>
</tr>
</tbody>
</table>

As part of the certificate requirements, CAH F256 is recommended to complete the computation requirement and CAH F255 is recommended to complete the human relations requirement.

Diesel/Heavy Equipment Certificate

The diesel and heavy equipment mechanics program offers training in the maintenance and repair of trucks, buses and heavy equipment. This one-year certificate program emphasizes hands-on training and in-class experience as students perform preventive maintenance inspections, determine causes of equipment problems and make necessary repairs and adjustments from tune-ups to complete engine and equipment overhauls. Students work on large truck fuel, electrical and air systems, diesel engines, transmissions, differentials, crawler tractor undercarriages, steering and final drives. A student may request credit by examination for any DSLT or MECN class. See the department coordinator for details.

Minimum Requirements for Diesel/Heavy Equipment Certificate: 36 credits

Programs Certificate

Certificate, Diesel/Heavy Equipment

Program Requirements

Minimum Requirements for Certificate: 36 credits

Students must earn a C or better in each course.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>DSLT F101</td>
<td>Safety Including Rigging and Lifting</td>
<td>1</td>
</tr>
<tr>
<td>DSLT F103</td>
<td>Basic Equipment and Truck Operation</td>
<td>1</td>
</tr>
<tr>
<td>DSLT F105</td>
<td>Preventive Maintenance</td>
<td>3</td>
</tr>
<tr>
<td>DSLT F107</td>
<td>Basic Electrical Systems and Electronic Fuel Injection</td>
<td>3</td>
</tr>
<tr>
<td>DSLT F110</td>
<td>Basic Industrial Fabrication</td>
<td>2</td>
</tr>
<tr>
<td>DSLT F111</td>
<td>Diesel Emissions</td>
<td>2</td>
</tr>
<tr>
<td>DSLT F123</td>
<td>Heavy Duty Braking Systems</td>
<td>3</td>
</tr>
<tr>
<td>DSLT F154</td>
<td>Diesel Fuel Injection</td>
<td>3</td>
</tr>
<tr>
<td>DSLT F201</td>
<td>Manual Transmissions and Differentials</td>
<td>3</td>
</tr>
<tr>
<td>DSLT F202</td>
<td>Heavy Duty Automatic Transmissions</td>
<td>2</td>
</tr>
<tr>
<td>DSLT F210</td>
<td>Heavy Equipment Fabrication</td>
<td>2</td>
</tr>
<tr>
<td>DSLT F254</td>
<td>Engine</td>
<td>5</td>
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<tr>
<td>MECN F103</td>
<td>Starting and Charging Systems</td>
<td>3</td>
</tr>
<tr>
<td>MECN F210</td>
<td>Hydraulics</td>
<td>3</td>
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</table>

As part of the certificate requirements, the communication, human relations and computation content is embedded in the major required courses for this program.

Drafting Technology Certificate; A.A.S. Degree

ADMISSION TO A.A.S. IS CURRENTLY SUSPENDED.

The drafting technology programs combine focused training in computer-aided drafting with a well-rounded exposure to the professions, trades
and materials common to construction in Alaska. Courses combine technical CAD training with the vocabulary and knowledge needed to communicate with future employers in the architectural, engineering and construction fields. Students develop skills in mathematics, drawing and multifunctional CAD techniques. Students are instructed in traditional drawing techniques, CAD, and building information modeling technologies, giving them the knowledge and flexibility to work traditionally and with the most recent drafting technologies. Required courses cover many aspects of design and construction, including building materials, codes, and civil, mechanical, electrical and structural technologies. Qualified students have the opportunity to work side-by-side with professionals from the architectural and engineering community in internships, gaining valuable on-the-job experience.

Students entering the certificate program are expected to have computer skills equivalent to CIOS F150.

Minimum Requirements for Drafting Technology Certificate: 33-34 credits; for A.A.S. Degree: 60-63 credits

Community and Technical College
Drafting/Design Technology (http://www.ctc.uaf.edu/programs/drafting/)
907-455-2800

Programs
Degree
• A.A.S., Drafting Technology (p. 128) - Admission to this program is currently suspended.

Certificate
• Drafting Technology (p. 128)

A.A.S., Drafting Technology

Program Requirements
This program is currently suspended.
Students must earn a C- grade or better in each course.

Minimum Requirements for Drafting Technology A.A.S.: 60-63 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td></td>
<td>General University Requirements</td>
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</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (p. 106)</td>
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</tr>
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<td></td>
<td>A.A.S. Degree Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the A.A.S. degree requirements. (p. 111)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Drafting Technology Program Requirements</td>
<td></td>
</tr>
<tr>
<td>CM F102</td>
<td>Methods of Building Construction</td>
<td>3</td>
</tr>
<tr>
<td>CM F123</td>
<td>Codes and Standards</td>
<td>3</td>
</tr>
<tr>
<td>CM F142</td>
<td>Mechanical and Electrical Technology</td>
<td>3</td>
</tr>
<tr>
<td>CM F213</td>
<td>Civil Technology</td>
<td>3</td>
</tr>
<tr>
<td>CM F231</td>
<td>Structural Technology</td>
<td>3</td>
</tr>
<tr>
<td>DRT F101</td>
<td>Introduction to Drafting</td>
<td>3</td>
</tr>
<tr>
<td>DRT F140</td>
<td>Architectural Drafting</td>
<td>3</td>
</tr>
<tr>
<td>DRT F145</td>
<td>Structural Drafting</td>
<td>3</td>
</tr>
<tr>
<td>DRT F150</td>
<td>Civil Drafting</td>
<td>3</td>
</tr>
<tr>
<td>DRT F155</td>
<td>Mechanical and Electrical Drafting</td>
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</tbody>
</table>

Complete 3-6 credits from the following electives: 3-6

<table>
<thead>
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<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CM F201</td>
<td>Construction Project Management</td>
<td></td>
</tr>
<tr>
<td>DRT F121</td>
<td>Construction Documents and Drawings</td>
<td></td>
</tr>
<tr>
<td>DRT F260</td>
<td>Drafting Internship</td>
<td></td>
</tr>
<tr>
<td>ES F101</td>
<td>Introduction to Engineering</td>
<td></td>
</tr>
</tbody>
</table>

1 This elective requires additional math prerequisites.

Certificate, Drafting Technology

Program Requirements
Students must earn a C- or better in each course.

Minimum Requirements for Drafting Technology Certificate: 33-34 credits

CONCENTRATIONS: ARCHITECTURAL DRAFTING (P. 128), CIVIL DRAFTING (P. 129), INFORMATION TECHNOLOGY (P. 129), MECHANICAL AND ELECTRICAL DRAFTING (P. 129), PROCESS TECHNOLOGY (P. 129) AND STRUCTURAL DRAFTING (P. 129)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRT F170</td>
<td>Beginning CAD</td>
<td></td>
</tr>
<tr>
<td>DRT F210</td>
<td>Intermediate CAD</td>
<td></td>
</tr>
<tr>
<td>DRT F270</td>
<td>Advanced CAD</td>
<td></td>
</tr>
</tbody>
</table>

Complete one from the following concentrations: 9-10

Architectural Drafting

Civil Drafting

Information Technology

Mechanical and Electrical Drafting

Process Technology

Structural Drafting

CONCENTRATIONS

Architectural Drafting

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CM F102</td>
<td>Methods of Building Construction</td>
<td>3</td>
</tr>
<tr>
<td>CM F123</td>
<td>Codes and Standards</td>
<td>3</td>
</tr>
<tr>
<td>DRT F140</td>
<td>Architectural Drafting</td>
<td>3</td>
</tr>
</tbody>
</table>
Early Childhood Education
Certificate, A.A.S. Degree

All courses are offered in Fairbanks and through distance delivery for students outside Fairbanks. This program prepares students for employment as early childhood teachers, K-3 teachers aides and child care providers, and improves the skills of those already in the field.

Graduates pursue opportunities with child development centers, Head Start programs, child welfare service agencies, recreation and scouting services, staff training, program licensing and entrepreneurial initiatives serving children and families. This program is guided by standards specified by the National Association for the Education of Young Children.

The A.A.S. program in early childhood education is for students enrolling in college for the first time as well as for those who are educated in other subject areas but desire to retrain for employment in this field. Through course work, including fieldwork directly with children, students gain the knowledge and skills they need to meet State of Alaska requirements for employment as administrators or teachers in licensed centers and as aides in elementary schools. Course work also fulfills minor or concentration requirements for degrees in other disciplines. Students entering the A.A.S. degree should meet with an early childhood advisor to discuss a specific course of study. The courses for the A.A.S. degree lay the foundation for the B.A. in child development and family studies or can be combined with other disciplines to make a specific focus on young children in areas such as science, movement, leadership, business or creative arts.

Minimum Requirements for Early Childhood Education degrees:
Certificate: 30 credits; A.A.S. Degree: 60 credits

Community and Technical College
Early Childhood Education (https://www.ctc.uaf.edu/programs/early-childhood-education/)
907-455-2800

Programs

Degrees
- A.A.S., Early Childhood Education (p. 129)

Certificate
- Certificate, Early Childhood Education (p. 130)

A.A.S., Early Childhood Education

Program Requirements
Students must earn a C- grade or better in each course.

Minimum Requirements for Early Childhood Education A.A.S. Degree: 60 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CM F102</td>
<td>Methods of Building Construction</td>
<td>3</td>
</tr>
<tr>
<td>CM F213</td>
<td>Civil Technology</td>
<td>3</td>
</tr>
<tr>
<td>DRT F150</td>
<td>Civil Drafting</td>
<td>3</td>
</tr>
</tbody>
</table>

Note: DRT F260 may be substituted for concentration-specific DRT courses with program approval.

Civil Drafting

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CITS F203</td>
<td>Information Technology Support Fundamentals</td>
<td>4</td>
</tr>
<tr>
<td>CITS F204</td>
<td>Introduction to Computer Networks</td>
<td>3</td>
</tr>
<tr>
<td>CITS F261</td>
<td>Computer and Network Security</td>
<td>3</td>
</tr>
</tbody>
</table>

Information Technology

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CM F102</td>
<td>Methods of Building Construction</td>
<td>3</td>
</tr>
<tr>
<td>CM F142</td>
<td>Mechanical and Electrical Technology</td>
<td>3</td>
</tr>
<tr>
<td>DRT F155</td>
<td>Mechanical and Electrical Drafting</td>
<td>3</td>
</tr>
</tbody>
</table>

Mechanical and Electrical Drafting

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRT F101</td>
<td>Introduction to Process Technology</td>
<td>3</td>
</tr>
<tr>
<td>PRT F110</td>
<td>Introduction to Occupational Safety, Health and Environmental Awareness</td>
<td>3</td>
</tr>
<tr>
<td>PRT F117</td>
<td>Drafting for Technicians</td>
<td>3</td>
</tr>
</tbody>
</table>

Process Technology

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CM F102</td>
<td>Methods of Building Construction</td>
<td>3</td>
</tr>
<tr>
<td>CM F231</td>
<td>Structural Technology</td>
<td>3</td>
</tr>
<tr>
<td>DRT F145</td>
<td>Structural Drafting</td>
<td>3</td>
</tr>
</tbody>
</table>

Structural Drafting

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE F101</td>
<td>Introduction to Early Childhood Profession</td>
<td>3</td>
</tr>
<tr>
<td>ECE F104X</td>
<td>Child Development I: Prenatal, Infants and Toddlers</td>
<td>3</td>
</tr>
<tr>
<td>ECE F110</td>
<td>Safe, Healthy Learning Environments</td>
<td>3</td>
</tr>
<tr>
<td>ECE F119</td>
<td>Curriculum I: Principles and Practices</td>
<td>3</td>
</tr>
<tr>
<td>ECE F130</td>
<td>Culture, Learning and the Young Child</td>
<td>2</td>
</tr>
<tr>
<td>ECE F132</td>
<td>Young Child and the Family</td>
<td>1</td>
</tr>
<tr>
<td>or LS F101X</td>
<td>Library Information and Research</td>
<td>1</td>
</tr>
<tr>
<td>ECE F140</td>
<td>Positive Social and Emotional Development</td>
<td>3</td>
</tr>
<tr>
<td>ECE F210X</td>
<td>Child Guidance</td>
<td>3</td>
</tr>
<tr>
<td>ECE F213</td>
<td>Curriculum: Thinking, Reasoning and Discovery</td>
<td>3</td>
</tr>
<tr>
<td>ECE F214</td>
<td>Infants and Toddlers</td>
<td>3</td>
</tr>
<tr>
<td>ECE F229</td>
<td>Foundations in Nutrition and Physical Wellness</td>
<td>3</td>
</tr>
<tr>
<td>ECE F235</td>
<td>Screening, Assessment and Recording</td>
<td>3</td>
</tr>
<tr>
<td>ECE F240</td>
<td>Inclusion of Children with Special Needs</td>
<td>3</td>
</tr>
</tbody>
</table>
Certificate, Early Childhood Education

Students must earn a C- grade or better in each course.

Minimum Requirements for Early Childhood Education Certificate: 34 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General University Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (p. 106)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Certificate Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the certificate requirements. (p. 108)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>As part of the certificate requirements, complete:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Communication</td>
<td></td>
</tr>
<tr>
<td></td>
<td>WRTG F111X Writing Across Contexts</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Computation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ECE F117 Practical Math Skills</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>or any other math course at the 100 level or above.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Human Relations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ECE F107X Child Development II: The Preschool and Primary Years</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Early Childhood Education Program Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the following major requirements:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ECE F101 Introduction to Early Childhood Profession</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ECE F104X Child Development I: Prenatal, Infants and Toddlers</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ECE F110 Safe, Healthy Learning Environments</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ECE F115 Responsive and Reflective Teaching Practicum I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>or ECE F170 or ECE F299</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ECE F119 Curriculum I: Principles and Practices</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ECE F132 Young Child and the Family</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>ECE F140 Positive Social and Emotional Development</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ECE F213 Curriculum: Thinking, Reasoning and Discovery Infants and Toddlers</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>or ECE F214</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ECE F229 Foundations in Nutrition and Physical Wellness</td>
<td>3</td>
</tr>
</tbody>
</table>

Environmental Studies Certificate

ADMISSION TO THIS PROGRAM IS CURRENTLY SUSPENDED.

This program addresses many of the environmental issues influencing Alaska communities and provides basic academic preparation for entry-level vocational environmental careers. The program serves as a steppingstone into science-related associate or baccalaureate programs.

This program may be especially of interest to individuals employed by and/or interested in employment with state, federal or tribal agencies or other groups providing natural resource management services. It is recommended that students have completed a high school lab-based science, biology or chemistry course as well as algebra due to the science focus of this program.

Minimum Requirements for Environmental Studies Certificate: 30-35 credits

College of Rural and Community Development
Bristol Bay Campus (http://www.uaf.edu/bbc/.html)
907-474-7143

Programs Certificate

• Environmental Studies (p. 130) — Admission to this program is currently suspended.

Certificate, Environmental Studies

Admission to this program is currently suspended.

Students must earn a C- grade or better in each course.

Minimum Requirements for Environmental Studies Certificate: 30-35 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General University Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (p. 106)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Certificate Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the certificate requirements. (p. 108)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Communication</td>
<td></td>
</tr>
<tr>
<td></td>
<td>WRTG F111X Writing Across Contexts</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Computation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MATH F105 Intermediate Algebra (or MATH/CS/STAT at the 100 level or higher)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Human Relations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete one of the following:</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ANTH F100X Individual, Society and Culture or SOC F101X Introduction to Sociology</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ABUS F154 Human Relations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other program-approved discipline-based human relations course</td>
<td></td>
</tr>
</tbody>
</table>
Environmental Studies Program Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVI F101</td>
<td>Introduction to Environmental Science</td>
<td>3</td>
</tr>
<tr>
<td>ENVI F110</td>
<td>Introduction to Water Quality I: Measurement</td>
<td>1</td>
</tr>
<tr>
<td>ENVI F130</td>
<td>Introduction to the National Environmental Policy Act</td>
<td>1</td>
</tr>
<tr>
<td>ENVI F160</td>
<td>Internship in Environmental Studies</td>
<td>1-2</td>
</tr>
<tr>
<td>ENVI F260</td>
<td>Field Techniques for Environmental Technicians</td>
<td>2</td>
</tr>
<tr>
<td>ENVI F265</td>
<td>Introduction to Methods in Environmental Studies Reporting</td>
<td>2</td>
</tr>
</tbody>
</table>

Complete two from the following science foundation courses: 8

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATM F101X</td>
<td>Weather and Climate of Alaska</td>
</tr>
<tr>
<td>BIOL F103X</td>
<td>Biology and Society</td>
</tr>
<tr>
<td>BIOL F104X</td>
<td>Natural History of Alaska</td>
</tr>
<tr>
<td>BIOL F115X</td>
<td>Fundamentals of Biology I</td>
</tr>
<tr>
<td>CHEM F103X</td>
<td>Introduction to General Chemistry</td>
</tr>
<tr>
<td>CHEM F105X</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>GEOG F111X</td>
<td>Earth and Environment: Elements of Physical Geography</td>
</tr>
<tr>
<td>MSL F111X</td>
<td>The Oceans</td>
</tr>
</tbody>
</table>

Complete one of the following electives: 3-4

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATM F101X</td>
<td>Weather and Climate of Alaska</td>
</tr>
<tr>
<td>BIOL F104X</td>
<td>Natural History of Alaska</td>
</tr>
<tr>
<td>BIOL F115X</td>
<td>Fundamentals of Biology I</td>
</tr>
<tr>
<td>CHEM F104X</td>
<td>Introduction to Organic Chemistry and Biochemistry</td>
</tr>
<tr>
<td>CHEM F105X</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>FISH F101</td>
<td>Introduction to Fisheries</td>
</tr>
<tr>
<td>GEOG F111X</td>
<td>Earth and Environment: Elements of Physical Geography</td>
</tr>
<tr>
<td>HLRM F130</td>
<td>Research Field Logistics</td>
</tr>
<tr>
<td>NRM F101</td>
<td>Natural Resources Conservation and Policy</td>
</tr>
<tr>
<td>RD F250</td>
<td>Grant Writing for Community Development</td>
</tr>
<tr>
<td>STAT F200X</td>
<td>Elementary Statistics</td>
</tr>
<tr>
<td>Advisor-approved elective 2</td>
<td></td>
</tr>
</tbody>
</table>

1 Cannot be used for elective credit if used as computational credit.
2 Similar level and subject matter.

Ethnobotany

Certificate

ADMISSION TO THIS PROGRAM IS CURRENTLY SUSPENDED.

The ethnobotany certificate program involves interdisciplinary study of the role of native plants in indigenous cultures. Students will learn about native plants and their uses and ecology in the context of their cultural, social and economic importance by combining scientific and anthropological concepts and methods. The program emphasizes culturally relevant, place-based courses that highlight the ways this information contributes to other fields of study, such as cultural and natural resources management, community development, adaptive resilience, and human health. It is also designed to serve as a bridge to a variety of associate and baccalaureate programs in natural science and liberal arts.

This program may be especially of interest to individuals employed by or interested in employment with state, federal or tribal agencies or other local entities in rural Alaska which provide natural resource management services.

Admission requires a high school diploma or GED and interest in science-related fields. It is highly recommended that students have completed two high school lab-based science courses, preferably in biology, chemistry or physics.

Students whose ACT/SAT scores are not sufficient for placement into college-level courses must take the ASSET or ACCUPLACER test and be placed in the appropriate developmental-level course.

Minimum Requirements for Ethnobotany Certificate: 30-32 credits

College of Rural and Community Development
Kuskokwim Campus (http://www.bethel.uaf.edu)
907-474-7143

Programs

Certificate

Ethnobotany

Program Requirements

Admission to this program is currently suspended.

Students must earn a C- or better in each course unless otherwise designated.

Minimum Requirements for Ethnobotany Certificate: 30-32 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANS F242X</td>
<td>Indigenous Cultures of Alaska</td>
<td></td>
</tr>
<tr>
<td>BIOL F103X</td>
<td>Biology and Society</td>
<td></td>
</tr>
<tr>
<td>BIOL F104X</td>
<td>Natural History of Alaska</td>
<td></td>
</tr>
<tr>
<td>CHEM F103X</td>
<td>Introduction to General Chemistry</td>
<td></td>
</tr>
<tr>
<td>CHEM F105X</td>
<td>General Chemistry I</td>
<td></td>
</tr>
<tr>
<td>EBOT F100</td>
<td>Introduction to Ethnobotany</td>
<td>3</td>
</tr>
<tr>
<td>EBOT F200</td>
<td>Seminar in Ethnobotany</td>
<td>1</td>
</tr>
<tr>
<td>EBOT F210</td>
<td>Ethical Wildcrafting</td>
<td>1</td>
</tr>
<tr>
<td>EBOT F220</td>
<td>Ethnobotanical Techniques</td>
<td>2</td>
</tr>
</tbody>
</table>
Minimum Requirements for Fire Science A.A.S.: 60 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRE F101</td>
<td>Principles of Emergency Services</td>
<td>3</td>
</tr>
<tr>
<td>FIRE F105</td>
<td>Fire Prevention</td>
<td>3</td>
</tr>
<tr>
<td>FIRE F121</td>
<td>Fire Behavior and Combustion</td>
<td>3</td>
</tr>
<tr>
<td>FIRE F131</td>
<td>Firefighter I, Series I</td>
<td>3</td>
</tr>
<tr>
<td>FIRE F133</td>
<td>Firefighter I, Series II</td>
<td>3</td>
</tr>
<tr>
<td>FIRE F135</td>
<td>Firefighter I, Series III</td>
<td>3</td>
</tr>
<tr>
<td>FIRE F137</td>
<td>Firefighter I, Series IV</td>
<td>3</td>
</tr>
<tr>
<td>FIRE F206</td>
<td>Building Construction for Fire Protection</td>
<td>3</td>
</tr>
<tr>
<td>FIRE F214</td>
<td>Fire Protection Systems</td>
<td>3</td>
</tr>
<tr>
<td>FIRE F220</td>
<td>Emergency Services Safety, Health and</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Survival</td>
<td></td>
</tr>
</tbody>
</table>

Program Electives

Complete 15 credits from the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRE F230</td>
<td>Ethnobotanical Chemistry</td>
</tr>
<tr>
<td>or EBOT F250</td>
<td>Applied Ethnobotany Fall</td>
</tr>
<tr>
<td>and EBOT F251</td>
<td>Applied Ethnobotany Spring</td>
</tr>
</tbody>
</table>

Complete 3-4 credits of program advisor-approved electives. 3-4

1 Students must earn a C or better in each program required course.

Fire Science

A.A.S. Degree

The fire science program, which presently emphasizes only municipal fire control, provides classroom education, hands-on training and practical vocational experience through local fire and rescue organizations.

Instructors provide a high level of technical expertise on a variety of emergency and fire science services. The primary goal of this program is to make our students the most attractive candidates for job openings and promotions within fire and other emergency services fields.

Minimum Requirements for Fire Science A.A.S. Degree: 60 credits

Community and Technical College
907-455-2800
Fire Science Program (https://www.ctc.uaf.edu/programs/fire-science/)

Program Requirements

Students must earn a C- or better in each course.

A.A.S., Fire Science

Program Requirements

Students must earn a C- or better in each course.

Minimum Requirements for Fire Science A.A.S.: 60 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRE F232</td>
<td>Firefighter II</td>
</tr>
</tbody>
</table>

Program Electives

Complete 15 credits from the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMS F170</td>
<td>EMT: Emergency Medical Technician I</td>
</tr>
<tr>
<td>FIRE F107</td>
<td>Strategy and Tactics</td>
</tr>
<tr>
<td>FIRE F117</td>
<td>Rescue Practices</td>
</tr>
<tr>
<td>FIRE F151</td>
<td>Wildland Firefighter I</td>
</tr>
<tr>
<td>FIRE F202</td>
<td>Fire Protection Hydraulics and Water Supply</td>
</tr>
<tr>
<td>FIRE F210</td>
<td>Fire Administration I</td>
</tr>
<tr>
<td>FIRE F232</td>
<td>Firefighter II</td>
</tr>
</tbody>
</table>

1 Students completing the A.A.S. in fire science will automatically complete a concentration in municipal fire control.

Health, Allied Certificate; A.A.S. Degree

The occupational endorsement, certificates, degrees and occupational training programs in allied health provide students with the knowledge and technical skills for employment in health care. Course work in phlebotomy is available, as are occupational endorsements in medical billing, medical coding and medical office reception. Certificates include medical assistant, dental assistant, health care reimbursement and medical/dental reception. A.A.S. degrees include dental assistant and medical assistant. A.A.S. degrees in nursing and radiologic technology are offered in Fairbanks at the Community and Technical College through the University of Alaska Anchorage.

Special admission, licensing or certification requirements may apply to students in this program. Applicants should familiarize themselves with these and speak with a faculty advisor if they have any questions or concerns.

DENTAL ASSISTANT

The dental assistant certificate and A.A.S. degree programs prepare students to become skilled members of the dental health care team. The duties of the dental assistant are among the most comprehensive and varied in the dental office. Upon completion of the course work, students graduate with either an A.A.S. or certificate in dental assisting and are eligible to take the National Entry Level Dental Assistant (NELDA) Dental Assisting National Board (DANB) examination. Prerequisites are graduation from high school or equivalent (GED) and completion of a dental assisting application form.

HEALTH CARE REIMBURSEMENT

The health care reimbursement certificate program prepares students for employment as medical billers and coders in medical offices, clinics, hospitals and other medical facilities. Students in the program learn analysis of medical records and the assigning of codes for indexing diagnoses and procedures to provide information for reimbursement purposes. The successful completion of this certificate prepares the student for the national certification exam through the American Academy of Professional Coders. The occupational endorsements in medical billing and medical coding are part of the Health Care Reimbursement Certificate.

MEDICAL ASSISTANT, MEDICAL/DENTAL RECEPTION

The medical assistant certificate and A.A.S. degree programs prepare students for employment in ambulatory care settings. Students receive education in the theory and skills for office work and clinical care.
Prerequisites for the program include a high school diploma or GED and completion of the medical assistant application. The UAF Community and Technical College medical assistant certificate is accredited by the Commission on Accreditation of Allied Health Education Programs upon recommendation of the Medical Assisting Education Review Board (MAERB), CAAHEP, 25400 U.S. Highway 19 North, Suite 158, Clearwater, FL 33763, 727-210-2530. The medical assistant certificate incorporates both the medical office reception occupational endorsement and the medical/dental reception certificate.

MEDICAL SCRIBE SPECIALIST
The certificate in medical scribe specialist prepares students for employment as members of the health care team to provide data collection and input to maintain comprehensive and accurate electronic health records. Medical scribe specialists work in a variety of health care settings such as hospitals, ambulatory settings and specialties (e.g., primary care, urgent care, internal medicine, ophthalmology). Students will be equipped with skills that maximize the efficiency and productivity of clinical care, enabling real-time clinical documentation and workflow efficiencies for their employers. They will be prepared to take the Medical Scribe Certification and Aptitude Test to acquire the Certified Medical Scribe Specialist, a certification recognized by the American College of Medical Scribe Specialists.

NURSING QUALIFICATIONS, PRE-
The allied health certificate in pre-nursing qualifications is designed to guide students preparing to apply to the University of Alaska Anchorage Bachelors of Science in nursing. The certificate includes a clinical course in addition to a number of the prerequisite and corequisite courses for the B.S. in nursing. Admission to this certificate program requires a high school diploma or GED and test scores sufficient for placement into WRTG F111X and MATH F105.

Admission to the UAA School of Nursing (SON) program is competitive. While this certificate prepares the student to be highly qualified, it does not guarantee admission to the UAA SON. Before applying to UAA and the UAA SON, students must complete a pre-admission nursing exam and are strongly encouraged to work in a clinical practice. Students should work closely with an advisor while completing this certificate to help prepare for admission to the UAA SON.

Students who have not completed high school chemistry will need to complete either CHEM F103X or CHEM F105X or have instructor permission to register for BIOL F111X or BIOL F112X.

REGISTERED NURSE
The B.S. degree in nursing is offered by the University of Alaska Anchorage at the Community and Technical College in cooperation with the allied health department. Graduates of the nursing program are prepared to provide effective nursing services to individuals receiving care in inpatient settings and in structured outpatient settings. The academic program provides a closely related mix of theory and clinical practice; students gain experience in hospitals, nursing homes, clinics and community agencies. Graduates of this B.S. degree are eligible to take the NCLEX examination that grants professional licensure to practice nursing as a registered nurse. Additional information is available at University of Alaska Anchorage Department of Nursing (https://www.uaa.alaska.edu/academics/college-of-health/departments/school-of-nursing/).

RADIOLOGIC TECHNOLOGY
The A.A.S. degree in radiologic technology is offered by the University of Alaska Anchorage in cooperation with the Community and Technical College and Fairbanks Memorial Hospital. Course work for the degree is delivered through a combination of the traditional classroom setting, distance delivery and clinical experience. Upon completion of the program, students may apply to the American Registry of Radiologic Technologists for national certification. Additional information is available at University of Alaska Anchorage Radiologic Technology (http://www.uaa.alaska.edu/college-of-health/departments/school-of-allied-health/radiologic-technology/).

MORE INFORMATION
Information on any of the allied health programs is available from the allied health department (https://www.ctc.uaf.edu/academics/allied-health/) at Community and Technical College, P.O. Box 758040, Fairbanks, AK 99775; by calling 907-455-2822; or by email at fyhealth@uaf.edu.

Minimum Requirements for Certificate: 30-42 credits; for Degree: 60-61 credits

Community and Technical College
Allied Health (https://www.ctc.uaf.edu/academics/allied-health/)
907-455-2800

Programs
Degrees
• A.A.S., Dental Assistant (p. 133)
• A.A.S., Medical Assistant (p. 134)

Certificates
• Dental Assistant (p. 134)
• Health Care Reimbursement (p. 134)
• Medical Assistant (p. 135)
• Medical/Dental Reception (p. 136)
• Medical Scribe Specialist (p. 135)
• Pre- (p. 136) Nursing Qualifications (p. 136)

A.A.S., Dental Assistant
Students must earn a C- grade or better in each course.

Minimum Requirements for Dental Assistant A.A.S.: 60 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General University Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (p. 106)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A.A.S. Degree Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the A.A.S. degree requirements. (p. 111)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dental Assistant Program Requirements</td>
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</tr>
<tr>
<td>DA F132</td>
<td>Administrative Procedures for the Dental Assistant</td>
<td>2</td>
</tr>
<tr>
<td>DA F150</td>
<td>Dental Radiography</td>
<td>4</td>
</tr>
<tr>
<td>DA F151</td>
<td>Dental Infection Control</td>
<td>2</td>
</tr>
<tr>
<td>DA F152</td>
<td>Dental Materials and Applications</td>
<td>4</td>
</tr>
<tr>
<td>DA F153</td>
<td>Anatomy for Dental Assistants</td>
<td>3</td>
</tr>
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</table>
A.A.S., Medical Assistant

Students must earn a C- grade or better in each course.

Minimum Requirements for Medical Assistant A.A.S. Degree: 60 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLTH F110</td>
<td>Professional Skills for the Workplace</td>
<td>2</td>
</tr>
<tr>
<td>HLTH F118</td>
<td>Medical Law and Ethics</td>
<td>2</td>
</tr>
<tr>
<td>HLTH F122</td>
<td>First Aid and CPR for the Health Care Provider</td>
<td>0</td>
</tr>
<tr>
<td>HLTH F130</td>
<td>Medical Office Technology (preferred)</td>
<td>3</td>
</tr>
<tr>
<td>or CIOS F150</td>
<td>Computer Business Applications</td>
<td></td>
</tr>
<tr>
<td>HLTH F203</td>
<td>Science of Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>HLTH F208</td>
<td>Human Diseases</td>
<td>3</td>
</tr>
<tr>
<td>HLTH F236</td>
<td>Outpatient Health Care Reimbursement</td>
<td>3</td>
</tr>
<tr>
<td>MA F100</td>
<td>Medical Terminology</td>
<td>3</td>
</tr>
<tr>
<td>MA F114</td>
<td>Fundamentals of Anatomy and Physiology (preferred)</td>
<td>4</td>
</tr>
<tr>
<td>or BIOL F100X</td>
<td>Human Biology</td>
<td></td>
</tr>
<tr>
<td>MA F142</td>
<td>Clinical Procedures I</td>
<td>4</td>
</tr>
<tr>
<td>MA F144</td>
<td>Administrative Procedures for the Medical Assistant</td>
<td>6</td>
</tr>
<tr>
<td>MA F244</td>
<td>Clinical Procedures II</td>
<td>4</td>
</tr>
<tr>
<td>MA F247</td>
<td>Introduction to Pharmacology</td>
<td>2</td>
</tr>
<tr>
<td>MA F268</td>
<td>Medical Assisting Practicum</td>
<td>4</td>
</tr>
<tr>
<td>or MA F261 and MA F267</td>
<td>Medical/Dental Office Reception Practicum and Medical Assisting Practicum Completion</td>
<td></td>
</tr>
<tr>
<td>Approved HLTH, CIOS, ABUS, HUMS electives</td>
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</table>

Certificate, Dental Assistant

Students must earn a C- or better in each course.

Minimum Requirements for Dental Assistant Certificate: 33 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>DA F251</td>
<td>Beginning Chairside for Dental Assistants</td>
<td>4</td>
</tr>
<tr>
<td>DA F252</td>
<td>Advanced Chairside for Dental Assistants</td>
<td>4</td>
</tr>
<tr>
<td>DA F253</td>
<td>Clinical Chairside III for Dental Assistants</td>
<td>3</td>
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<tr>
<td>DA F254</td>
<td>Dental Assistant Practicum</td>
<td>4</td>
</tr>
<tr>
<td>HLTH F110</td>
<td>Professional Skills for the Workplace</td>
<td>2</td>
</tr>
<tr>
<td>HLTH F114</td>
<td>Fundamentals of Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>HLTH F122</td>
<td>First Aid and CPR for the Health Care Provider</td>
<td>0</td>
</tr>
<tr>
<td>HLTH F203</td>
<td>Science of Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>MA F247</td>
<td>Introduction to Pharmacology</td>
<td>2</td>
</tr>
</tbody>
</table>

Certificate, Health Care Reimbursement

Program Requirements

Students must earn a C- or better in each course.

Minimum Requirements for Health Care Reimbursement Certificate: 33 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>WRTG F111X</td>
<td>Writing Across Contexts</td>
<td>3</td>
</tr>
<tr>
<td>or ABUS F271</td>
<td>Business Communications</td>
<td></td>
</tr>
<tr>
<td>HLTH F100</td>
<td>Medical Terminology</td>
<td>3</td>
</tr>
<tr>
<td>HLTH F110</td>
<td>Professional Skills for the Workplace</td>
<td>2</td>
</tr>
<tr>
<td>HLTH F114</td>
<td>Fundamentals of Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>HLTH F116</td>
<td>Mathematics in Health Care</td>
<td>3</td>
</tr>
</tbody>
</table>

1 As part of the certificate requirements, the communication, computation and human relations content is embedded in the major required courses for this program.
**Certificate, Medical Assistant**

**Program Requirements**

Students must earn a C- or better in each course.

### Minimum Requirements for Medical Assistant Certificate: 36 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLTH F126</td>
<td>Administrative Procedures for the Healthcare Worker (Administrative Procedures for the Healthcare Worker)</td>
<td>3</td>
</tr>
<tr>
<td>HLTH F130</td>
<td>Medical Office Technology (preferred)</td>
<td>3</td>
</tr>
<tr>
<td>or CIOS F150</td>
<td>Computer Business Applications</td>
<td></td>
</tr>
<tr>
<td>HLTH F208</td>
<td>Human Diseases</td>
<td>3</td>
</tr>
<tr>
<td>HLTH F236</td>
<td>Outpatient Health Care Reimbursement</td>
<td>3</td>
</tr>
<tr>
<td>HLTH F238</td>
<td>Medical Coding I</td>
<td>3</td>
</tr>
<tr>
<td>HLTH F239</td>
<td>Medical Coding II</td>
<td>3</td>
</tr>
</tbody>
</table>

**Certificate, Medical Scribe Specialist**

**Admission Requirements**

- High school graduation or GED; ALEKS Placement: HLTH F116; Accuplacer Placement: WRTG F110; or permission of instructor.
- Documentation of the following immunizations: two varicella, two MMR, three Hep B, and two step PPD within previous 12 months or titers to prove immunity to above diseases.
- Be at least 18 years old by the first day of the semester in which you are admitted.
- Complete the UAF application process.
- Complete FAFSA for financial aid, if needed.
- These will be verified by the Director of Allied Health Programs.

**Program Requirements**

Students must earn a C- or better in each course.

### Minimum Requirements for Medical Scribe Specialist Certificate: 34 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>WRTG F111X</td>
<td>Writing Across Contexts</td>
<td>3</td>
</tr>
<tr>
<td>or ABUS F271</td>
<td>Business Communications</td>
<td></td>
</tr>
<tr>
<td>HLTH F116</td>
<td>Mathematics in Health Care</td>
<td>3</td>
</tr>
<tr>
<td>HLTH F106</td>
<td>Human Behavior in Health Care</td>
<td>3</td>
</tr>
<tr>
<td>ABUS F102A</td>
<td>Keyboarding: Touch Typing</td>
<td>1</td>
</tr>
<tr>
<td>ABUS F102B</td>
<td>Keyboarding: Skill Building</td>
<td>1</td>
</tr>
<tr>
<td>HLTH F100</td>
<td>Medical Terminology</td>
<td>3</td>
</tr>
<tr>
<td>HLTH F110</td>
<td>Professional Skills for the Workplace</td>
<td>2</td>
</tr>
<tr>
<td>HLTH F114</td>
<td>Fundamentals of Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>HLTH F118</td>
<td>Medical Law and Ethics</td>
<td>2</td>
</tr>
<tr>
<td>HLTH F122</td>
<td>First Aid and CPR for the Health Care Provider 2</td>
<td>0</td>
</tr>
<tr>
<td>MA F100</td>
<td>Medical Terminology</td>
<td>3</td>
</tr>
<tr>
<td>MA F114</td>
<td>Fundamentals of Anatomy and Physiology (preferred)</td>
<td>4</td>
</tr>
<tr>
<td>or BIOL F100X</td>
<td>Human Biology</td>
<td></td>
</tr>
<tr>
<td>MA F142</td>
<td>Clinical Procedures I</td>
<td>4</td>
</tr>
<tr>
<td>MA F144</td>
<td>Administrative Procedures for the Medical Assistant</td>
<td>6</td>
</tr>
<tr>
<td>MA F244</td>
<td>Clinical Procedures II</td>
<td>4</td>
</tr>
<tr>
<td>MA F247</td>
<td>Introduction to Pharmacology</td>
<td>2</td>
</tr>
<tr>
<td>MA F268</td>
<td>Medical Assisting Practicum</td>
<td>4</td>
</tr>
<tr>
<td>or MA F261 and MA F267</td>
<td>Medical/Dental Office Reception Practicum and Medical Assisting Practicum Completion</td>
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</tr>
<tr>
<td>MA F124</td>
<td>Introduction to Medical Scribe Specialist</td>
<td>2</td>
</tr>
<tr>
<td>HLTH F126</td>
<td>Administrative Procedures for the Healthcare Worker</td>
<td>3</td>
</tr>
<tr>
<td>HLTH F130</td>
<td>Medical Office Technology 2</td>
<td>3</td>
</tr>
<tr>
<td>or CIOS F150</td>
<td>Computer Business Applications</td>
<td></td>
</tr>
<tr>
<td>HLTH F260</td>
<td>Medical Scribe Specialist Practicum</td>
<td>2</td>
</tr>
<tr>
<td>MA F247</td>
<td>Introduction to Pharmacology</td>
<td>2</td>
</tr>
</tbody>
</table>

1. Fulfills the written communications requirement.
2. Complete course or submit current First Aid and CPR for the healthcare provider card.
3. HLTH F130 is preferred to CIOS F150.
Certificate, Medical/Dental Reception

Program Requirements
Students must earn a C- or better in each course.

Minimum Requirements for Medical/Dental Reception Certificate: 30 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General University Requirements</td>
<td>Complete the general university requirements. (p. 106)</td>
<td></td>
</tr>
<tr>
<td>Certificate Requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communications</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ABUS F271</td>
<td>Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>or WRTG F111X</td>
<td>Writing Across Contexts</td>
<td></td>
</tr>
<tr>
<td>Computation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HLTH F116</td>
<td>Mathematics in Health Care (or MATH at the F100 level or above)</td>
<td>3</td>
</tr>
<tr>
<td>Human Relations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HLTH F106</td>
<td>Human Behavior in Health Care</td>
<td>3</td>
</tr>
<tr>
<td>Medical/Dental Reception Program Requirements</td>
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<td></td>
</tr>
<tr>
<td>HLTH F100</td>
<td>Medical Terminology</td>
<td>3</td>
</tr>
<tr>
<td>HLTH F110</td>
<td>Professional Skills for the Workplace</td>
<td>2</td>
</tr>
<tr>
<td>HLTH F118</td>
<td>Medical Law and Ethics</td>
<td>2</td>
</tr>
<tr>
<td>HLTH F122</td>
<td>First Aid and CPR for the Health Care Provider</td>
<td>0</td>
</tr>
<tr>
<td>HLTH F126</td>
<td>Administrative Procedures for the Healthcare Worker</td>
<td>3</td>
</tr>
<tr>
<td>HLTH F130 or CIOS F150</td>
<td>Medical Office Technology (Preferred)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Computer Business Applications</td>
<td></td>
</tr>
<tr>
<td>HLTH F208</td>
<td>Human Diseases</td>
<td>3</td>
</tr>
<tr>
<td>HLTH F236</td>
<td>Outpatient Health Care Reimbursement</td>
<td>3</td>
</tr>
<tr>
<td>HLTH F261</td>
<td>Medical/Dental Office Reception Practicum</td>
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</table>

1 Complete course or submit First Aid and CPR for the healthcare providers cards.

Minimum Requirements for Pre-Nursing Qualifications Certificate: 37-42 credits

OPTIONAL CONCENTRATIONS: BSN PREPARED CONCENTRATION (P. 136)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
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<td>General University Requirements</td>
<td>Complete the general university requirements. (p. 106)</td>
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</tr>
<tr>
<td>Certificate Requirements</td>
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<td></td>
</tr>
<tr>
<td>Communications</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COJO F121X or COJO F131X or COJO F141X</td>
<td>Fundamentals of Oral Communication: Group Context</td>
<td>3</td>
</tr>
<tr>
<td>or WRTG F111X</td>
<td>Writing Across Contexts</td>
<td></td>
</tr>
<tr>
<td>Computation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select from the following:</td>
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<tr>
<td>MATH F105</td>
<td>Intermediate Algebra</td>
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<tr>
<td>MATH at the 100 level or higher</td>
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<tr>
<td>Human Relations</td>
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<tr>
<td>HLTH F107</td>
<td>Nurse Aide Training</td>
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</tr>
<tr>
<td>HLTH F111</td>
<td>Personal Care Attendant Training</td>
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<tr>
<td>HLTH F113</td>
<td>Personal Care Attendant to Nursing Assistant Bridge</td>
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<tr>
<td>Other approved clinical course</td>
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Certificate, Pre-Nursing Qualifications

Admission Requirements
Note: CHEM F103X is required only if CHEM is not taken and passed in high school.

Program Requirements
Students must earn a C- or better in each course.

<table>
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<tr>
<td>PHIL F102X</td>
<td>Introduction to Philosophy</td>
<td>3</td>
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<td>or PHIL F104X</td>
<td>Logic and Reasoning</td>
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<tr>
<td>PHIL F402</td>
<td>Biomedical and Research Ethics</td>
<td>3</td>
</tr>
<tr>
<td>STAT F200X</td>
<td>Elementary Statistics</td>
<td>3</td>
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<tr>
<td>NS A216</td>
<td>Pathophysiology</td>
<td>4</td>
</tr>
<tr>
<td>NS A309</td>
<td>Pharmacology in Nursing</td>
<td>3</td>
</tr>
</tbody>
</table>
High Latitude Range Management Certificate

An HLRM program certificate represents the completion of 31 credits delivered via hands-on applied field, laboratory and classroom sessions, with supplementary virtual instruction. The curriculum consists of the inventory and monitoring of Northern animal and plant populations, domesticated ungulate husbandry and health, research and report writing, and the opportunity to formulate a reindeer business plan specific for community development needs. Indigenous knowledge and the application of the scientific method will be used to stimulate learning and to better prepare students for entry-level natural resource jobs or to become a reindeer entrepreneur.

Admission is open to all, especially those employed by or interested in employment with tribal, state or federal agencies or other local entities in rural Alaska that provide natural resource management services.

Students should have a high school diploma or GED and an interest in science-related fields. It is strongly recommended that students seeking admission to this program have completed two high school lab-based science courses, preferably in biology, chemistry or physics.

The HLRM certificate may serve as a bridge to a variety of natural science associate and baccalaureate programs.

Minimum Requirements for High Latitude Range Management Certificate: 31 credits

College of Rural and Community Development
Northwest Campus (http://www.nwc.uaf.edu) 907-474-7143

Programs Certificate

High Latitude Range Management

Program Requirements
Students must earn a C- or better in each course.

Minimum Requirements for High Latitude Range Management Certificate: 31 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>General University Requirements</strong></td>
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<tr>
<td></td>
<td>Complete the general university requirements. (p. 106)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Certificate Requirements</strong></td>
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</tr>
<tr>
<td></td>
<td>Complete the certificate requirements. (p. 108)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>As part of the certificate requirements, complete:</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Communication</strong></td>
<td></td>
</tr>
<tr>
<td>WRTG F111X</td>
<td>Writing Across Contexts</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Computation</strong></td>
<td></td>
</tr>
<tr>
<td>MATH F113X</td>
<td>Numbers and Society</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>or ABUS F154</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Human Relations</strong></td>
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</table>

High Latitude Range Management Program Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL F104X</td>
<td>Natural History of Alaska</td>
<td>4</td>
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<tr>
<td>HLRM F120</td>
<td>History of Domesticated Alaskan Ungulates</td>
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<tr>
<td>HLRM F130</td>
<td>Research Field Logistics</td>
<td>2</td>
</tr>
<tr>
<td>HLRM F140</td>
<td>High Latitude Range Management</td>
<td>2</td>
</tr>
<tr>
<td>HLRM F150</td>
<td>Alaskan Ungulate Husbandry</td>
<td>2</td>
</tr>
<tr>
<td>HLRM F160</td>
<td>Meat Production</td>
<td>2</td>
</tr>
<tr>
<td>HLRM F170</td>
<td>Health Issues in Domesticated Ungulates</td>
<td>2</td>
</tr>
<tr>
<td>HLRM F201</td>
<td>Field Techniques for Range Management</td>
<td>2</td>
</tr>
<tr>
<td>HLRM F205</td>
<td>Report Writing in Range Management</td>
<td>2</td>
</tr>
<tr>
<td>NRM F101</td>
<td>Natural Resources Conservation and Policy</td>
<td>3</td>
</tr>
</tbody>
</table>

Human Services A.A.S. Degree

Students in the human services program receive skills-based training within a foundation of theory. After completing foundation courses, students select an area of concentration from the following: addictions counseling, behavioral health, or interdisciplinary concentration. Students learn interviewing and assessment, case management, crisis intervention, group counseling techniques and other specific skills needed within their concentration area.

The program prepares students for entry-level positions in human services agencies. Persons with a strong desire to help others, a sincere respect for humankind and a commitment to their own personal growth may find this field rewarding. They must be emotionally stable, flexible and interested in working with people of diverse social, cultural and economic backgrounds from themselves. Recovery from life traumas and addictions can be a positive attribute if the student has successfully worked through specific issues and is willing to continue personal growth.

Students who complete an addictions concentration are eligible for certification as chemical dependency counselor technicians through the Alaska Commission for Behavioral Health Certification.

Each concentration is available to B.A. degree students as a minor. Option 1: The B.A. degree student must complete the concentration and three HUMS elective credits. Concentrations provide students with the skills needed for employment. See minor requirements. Option 2: Complete HUMS-approved elective credits (18 credits of electives must be approved by the human services program lead faculty).

The degree program is delivered collaboratively through the Community and Technical College in Fairbanks and the College of Rural and Community Development.

Minimum Requirements for Human Services A.A.S. Degree: 63 credits

College of Rural and Community Development Human Services Program (https://www.uaf.edu/iac/academic-programs/rural-human-services/)
A.A.S., Human Services

Programs

Degree

- A.A.S., Human Services (p. 138)

Certification

- Alaska Chemical Dependency Counselor (p. 139)

A.A.S., Human Services

Program Requirements

Students must earn a C grade or better in each course.

Minimum Requirements for Human Services A.A.S. Degree: 63 credits

CONCENTRATIONS: ADDICTIONS COUNSELING (P. 138), BEHAVIORAL HEALTH (P. 138) AND INTERDISCIPLINARY CONCENTRATION (P. 138)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General University Requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complete the general university requirements. (p. 106)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.A.S. Degree Requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complete the A.A.S. degree requirements. (p. 111)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Human Services Program Requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HUMS F101</td>
<td>Introduction to Human Services</td>
<td>3</td>
</tr>
<tr>
<td>HUMS F102</td>
<td>Standards of Practice</td>
<td>2</td>
</tr>
<tr>
<td>HUMS F120</td>
<td>Cultural Diversity in Human Services</td>
<td>3</td>
</tr>
<tr>
<td>HUMS F125X</td>
<td>Introduction to Addictive Processes</td>
<td>3</td>
</tr>
<tr>
<td>HUMS F202</td>
<td>Standards of Practice II</td>
<td>1</td>
</tr>
<tr>
<td>HUMS F215</td>
<td>Individual Interviewing</td>
<td>3</td>
</tr>
<tr>
<td>HUMS F232</td>
<td>Human Service Practicum I</td>
<td>3</td>
</tr>
<tr>
<td>HUMS F233</td>
<td>Human Service Practicum II</td>
<td>3</td>
</tr>
<tr>
<td>HUMS F301</td>
<td>Ethics in Human Service</td>
<td>3</td>
</tr>
<tr>
<td>PSY F101X</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>Concentrations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complete one of the following concentrations:</td>
<td>12-21</td>
<td></td>
</tr>
<tr>
<td>Addictions Counseling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Behavioral Health</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interdisciplinary Concentration</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Concentrations

ADDITIONS COUNSELING

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HUMS F105</td>
<td>Personal Awareness and Growth</td>
<td>3</td>
</tr>
<tr>
<td>HUMS F205</td>
<td>Basic Principles of Group Counseling</td>
<td>3</td>
</tr>
<tr>
<td>or HUMS F210</td>
<td>Crisis and Grief Counseling</td>
<td></td>
</tr>
<tr>
<td>HUMS F250</td>
<td>Current Issues in Human Services (or any 1-credit course approved by the human services program)</td>
<td>1</td>
</tr>
<tr>
<td>HUMS F260</td>
<td>History of Alcohol in Alaska</td>
<td>1</td>
</tr>
<tr>
<td>HUMS F261</td>
<td>Substance Abuse Assessment: ASAM PPC II</td>
<td>1</td>
</tr>
</tbody>
</table>

BEHAVIORAL HEALTH

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HUMS F205</td>
<td>Basic Principles of Group Counseling</td>
<td>3</td>
</tr>
<tr>
<td>HUMS F210</td>
<td>Crisis and Grief Counseling</td>
<td>3</td>
</tr>
<tr>
<td>HUMS F280</td>
<td>Prevention and Community Development</td>
<td>3</td>
</tr>
<tr>
<td>HUMS F290</td>
<td>Case Management</td>
<td>3</td>
</tr>
<tr>
<td>HUMS F305</td>
<td>Substance Abuse Counseling</td>
<td>3</td>
</tr>
<tr>
<td>SOC F242</td>
<td>The Family: A Cross-cultural Perspective</td>
<td>3</td>
</tr>
</tbody>
</table>

Elective credits (approved by human services program coordinator) | 3 |

If the student is a social work or justice major, then select one of the following in place of an elective:

Social Work Majors:

- SWK F103X Introduction to Social Work

Justice Majors:

- JUST F110X Introduction to Justice

INTERDISCIPLINARY CONCENTRATION

a. The interdisciplinary concentration option is made available to students based on their individual needs and goals for specific vocational preparation. The interdisciplinary concentration will include 12 credits at the F200 level or above from the disciplines of social work, psychology, sociology, justice or human services. Three credits from these disciplines can be at the F100 level.

b. The interdisciplinary concentration will be reviewed and approved by the human services program coordinator, another human services faculty member and a faculty member representing at least one other discipline. Criteria for the approval of the interdisciplinary concentration is based on the candidate’s identified vocational and curricular needs.

Examples:

- HUMS or other acceptable courses that meet a student’s specific need: Workforce Specialty, Family Specialty, Restorative Justice, etc.
- Courses or a certificate from within the UA system (UAA, RHS, PWSCC, etc.) that are aligned with the human services degree program.

Below is a sample of courses that could be used to fulfill an interdisciplinary concentration in restorative justice for the human services degree.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HUMS F210</td>
<td>Crisis and Grief Counseling</td>
<td>3</td>
</tr>
<tr>
<td>HUMS F290</td>
<td>Case Management</td>
<td>3</td>
</tr>
</tbody>
</table>
For Students with the Rural Human Services Certificate

Up to 27 credits accepted as a block of courses

Minimum Requirements for Human Services A.A.S. Degree: 63 credits
Students must earn a C grade or better in each course.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HUMS F101</td>
<td>Introduction to Human Services</td>
<td>3</td>
</tr>
<tr>
<td>HUMS F301</td>
<td>Ethics in Human Service</td>
<td>3</td>
</tr>
<tr>
<td>PSY F101X</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSY F240</td>
<td>Psychology of Development</td>
<td>3</td>
</tr>
<tr>
<td>Complete three from the following:</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>HUMS F205</td>
<td>Basic Principles of Group Counseling</td>
<td></td>
</tr>
<tr>
<td>HUMS F250</td>
<td>Current Issues in Human Services</td>
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</tr>
<tr>
<td>HUMS F280</td>
<td>Prevention and Community Development</td>
<td></td>
</tr>
<tr>
<td>HUMS F290</td>
<td>Case Management</td>
<td></td>
</tr>
<tr>
<td>HUMS F305</td>
<td>Substance Abuse Counseling</td>
<td></td>
</tr>
</tbody>
</table>

Certification, Alaska Chemical Dependency Counselor

ALASKA CHEMICAL DEPENDENCY COUNSELOR CERTIFICATION

The Alaska Commission for Behavioral Health Certification has approved the following courses for up to 45 training hours each toward certification or recertification of chemical dependency counselors in the state of Alaska.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HUMS F125X</td>
<td>Introduction to Addictive Processes</td>
<td>3</td>
</tr>
<tr>
<td>HUMS F205</td>
<td>Basic Principles of Group Counseling</td>
<td>3</td>
</tr>
<tr>
<td>HUMS F210</td>
<td>Crisis and Grief Counseling</td>
<td>3</td>
</tr>
<tr>
<td>HUMS F215</td>
<td>Individual Interviewing</td>
<td>3</td>
</tr>
<tr>
<td>HUMS F260</td>
<td>History of Alcohol in Alaska</td>
<td>1</td>
</tr>
<tr>
<td>HUMS F301</td>
<td>Ethics in Human Service</td>
<td>3</td>
</tr>
<tr>
<td>HUMS F305</td>
<td>Substance Abuse Counseling</td>
<td>3</td>
</tr>
</tbody>
</table>

Note: Chemical dependency counselors currently certified by the Alaska Commission for Behavioral Health Certification are eligible for transfer credit toward the human services degree. Contact the human services program coordinator at 907-455-2842 for more information.

Information Technology Specialist Certificate; A.A.S. Degree

The information technology specialist certificate and associate programs teach students how to use, support, implement and troubleshoot the computer and information technology systems found in educational, governmental and corporate settings.

The certificate program focuses on foundation-level support skills required to effectively use and troubleshoot computer and information technology systems. Students completing the certificate program will be prepared for entry-level IT positions and to continue their education in the information technology specialist A.A.S. degree program.

The A.A.S. degree program prepares individuals to implement, support, and troubleshoot computer and information technology systems and obtain employment as an IT professional. Associate degrees in computing technology, network and cybersecurity, and network and system administration are offered.

Students entering either the certificate or A.A.S. degree program should meet with a faculty advisor to discuss program requirements and develop an education plan that matches the current skills and goals of the student.

This degree program is delivered collaboratively within the UA system.

Minimum Requirements for Information Technology Specialist Certificate: 30 credits; for Associate Degree: 60 credits

Programs

Degree
- A.A.S., Information Technology Specialist (p. 139)

Certificate
- Information Technology Specialist (p. 140)

A.A.S., Information Technology Specialist

Program Requirements
Students must earn a C- grade or better in each course.

Minimum Requirements for Information Technology Specialist A.A.S.: 60 credits

CONCENTRATIONS: COMPUTING TECHNOLOGY (P. 140), NETWORK AND CYBERSECURITY (P. 140), AND NETWORK AND SYSTEM ADMINISTRATION (P. 140)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Complete the general university requirements. (p. 106)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Complete the A.A.S. degree requirements. (p. 111) 1

### Information Technology Specialist Program Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CITS F204</td>
<td>Introduction to Computer Networks</td>
<td>3</td>
</tr>
<tr>
<td>CITS F205</td>
<td>Introduction to Coding and Programming</td>
<td>3</td>
</tr>
<tr>
<td>or CS F103</td>
<td>Introduction to Computer Programming</td>
<td></td>
</tr>
<tr>
<td>or CS F201</td>
<td>Computer Science I</td>
<td></td>
</tr>
<tr>
<td>CITS F212</td>
<td>Server Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>CITS F261</td>
<td>Computer and Network Security</td>
<td>3</td>
</tr>
<tr>
<td>CITS F281</td>
<td>Professional Practices in IT</td>
<td>3</td>
</tr>
<tr>
<td>CITS F284</td>
<td>Independent Project</td>
<td>3</td>
</tr>
<tr>
<td>or CITS F285</td>
<td>Cooperative Work Experience</td>
<td></td>
</tr>
<tr>
<td>Additional 6 credits from CIOS, CITS or CS electives</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

### Concentrations

Complete one of the following concentrations: 21-22

- **Computing Technology**
- **Network and Cybersecurity**
- **Network and System Administration**

Pass a certification review requiring students to demonstrate proficiency in the following skill areas: network support and troubleshooting; system administration; cybersecurity; independent thinking; human relations and support; and professional practices. 2

---

1 As part of the A.A.S. degree requirements, complete MATH F105 or any course at the F100 level or above in mathematical sciences (computer science, math or statistics) for the computation requirement, and ABUS F154, ANTH F100X, SOC F101X for the human relations requirement.

2 Prior to graduation, all students are required to pass a certification review that includes a hands-on scenario task and the development and presentation of a portfolio of work.

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### CONCENTRATIONS

#### Computing Technology

Complete 21-22 credits from the following or from program coordinator-approved courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CITS F201</td>
<td>Microcomputer Operating Systems Support</td>
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</tr>
<tr>
<td>CITS F203</td>
<td>Information Technology Support Fundamentals</td>
<td></td>
</tr>
<tr>
<td>CITS F219</td>
<td>Microcomputer Operating Systems: Topics</td>
<td></td>
</tr>
<tr>
<td>CITS F220</td>
<td>Implementing Internet Tools and Technologies</td>
<td></td>
</tr>
<tr>
<td>CITS F221</td>
<td>Graphics and Multimedia for the Web</td>
<td></td>
</tr>
<tr>
<td>CITS F222</td>
<td>Website Design</td>
<td></td>
</tr>
<tr>
<td>CITS F240</td>
<td>System and Network Services Administration</td>
<td></td>
</tr>
<tr>
<td>CITS F241</td>
<td>Networking and LAN Infrastructure Basics</td>
<td></td>
</tr>
<tr>
<td>CITS F242</td>
<td>Routing and Switching Essentials</td>
<td></td>
</tr>
<tr>
<td>CITS F243</td>
<td>Intermediate Networking and LAN Infrastructure</td>
<td></td>
</tr>
</tbody>
</table>

#### Network and Cybersecurity

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CITS F244</td>
<td>Advanced Network Infrastructure Services</td>
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</tr>
<tr>
<td>CITS F262</td>
<td>Cybersecurity Defense and Countermeasures</td>
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</tr>
<tr>
<td>CITS F263</td>
<td>Network Security Penetration Testing</td>
<td></td>
</tr>
<tr>
<td>CITS F265</td>
<td>Directory Services Administration</td>
<td></td>
</tr>
<tr>
<td>CITS F282</td>
<td>IT Troubleshooting Skills</td>
<td></td>
</tr>
<tr>
<td>CITS F289</td>
<td>Information Technology: Topics</td>
<td></td>
</tr>
</tbody>
</table>

#### Network and System Administration

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CITS F241</td>
<td>Networking and LAN Infrastructure Basics</td>
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</tr>
<tr>
<td>CITS F242</td>
<td>Routing and Switching Essentials</td>
<td></td>
</tr>
<tr>
<td>CITS F243</td>
<td>Intermediate Networking and LAN Infrastructure</td>
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</tr>
<tr>
<td>CITS F244</td>
<td>Advanced Network Infrastructure Services</td>
<td></td>
</tr>
<tr>
<td>CITS F265</td>
<td>Directory Services Administration</td>
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</tr>
</tbody>
</table>

**Note:** Upon admission to the certificate or degree program, each student will be assigned a mentor/committee chair who will be responsible for determining the student’s current level of competency in the various skill areas; assisting the student in determining the courses/experiences necessary for gaining competency in the deficient skill areas; setting up the student’s committee to consist of the mentor and at least one other individual who may be a UA faculty member, an adjunct faculty member, or an expert in the student’s community; arranging for practical experiences in the student’s community; and organizing the committee’s final assessment of the student’s work and recommending award of the certificate or degree.

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### Certificate, Information Technology Specialist

Students must earn a C- grade or better in each course.
Minimum Requirements for Information Technology Specialist Certificate: 30 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td></td>
<td><strong>General University Requirements</strong></td>
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<tr>
<td></td>
<td>Complete the general university requirements. (p. 106)</td>
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</tr>
<tr>
<td></td>
<td><strong>Certificate Requirements</strong></td>
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</tr>
<tr>
<td></td>
<td>Complete the certificate requirements. (p. 108)</td>
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</tr>
<tr>
<td></td>
<td><strong>Information Technology Specialist Program Requirements</strong></td>
<td></td>
</tr>
<tr>
<td>CITS F203</td>
<td>Information Technology Support Fundamentals</td>
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</tr>
<tr>
<td>CITS F204</td>
<td>Introduction to Computer Networks</td>
<td>3</td>
</tr>
<tr>
<td>CITS F212</td>
<td>Server Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>CITS F261</td>
<td>Computer and Network Security</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Complete 8-9 credits from the following or program coordinator-approved courses:</td>
<td>8-9</td>
</tr>
<tr>
<td>CIOS F128</td>
<td>Microcomputer Operating Systems</td>
<td></td>
</tr>
<tr>
<td>CIOS F130</td>
<td>Microcomputer Word Processing</td>
<td></td>
</tr>
<tr>
<td>CIOS F135</td>
<td>Microcomputer Spreadsheets</td>
<td></td>
</tr>
<tr>
<td>CIOS F150</td>
<td>Computer Business Applications</td>
<td></td>
</tr>
<tr>
<td>CIOS F189</td>
<td>Microcomputer Applications: Topics ²</td>
<td></td>
</tr>
<tr>
<td>CIOS F233</td>
<td>Desktop Publishing</td>
<td></td>
</tr>
<tr>
<td>CIOS F240</td>
<td>Microcomputer Databases</td>
<td></td>
</tr>
<tr>
<td>CIOS F255</td>
<td>Digital Graphics</td>
<td></td>
</tr>
<tr>
<td>CIOS F258</td>
<td>Digital Photography</td>
<td></td>
</tr>
<tr>
<td>CITS F201</td>
<td>Microcomputer Operating Systems Support</td>
<td></td>
</tr>
<tr>
<td>CITS F219</td>
<td>Microcomputer Operating Systems: Topics ²</td>
<td></td>
</tr>
<tr>
<td>CITS F220</td>
<td>Implementing Internet Tools and Technologies</td>
<td></td>
</tr>
<tr>
<td>CITS F221</td>
<td>Graphics and Multimedia for the Web</td>
<td></td>
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<tr>
<td>CITS F222</td>
<td>Website Design</td>
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<tr>
<td>CITS F240</td>
<td>System and Network Services Administration</td>
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<tr>
<td>CITS F241</td>
<td>Networking and LAN Infrastructure Basics</td>
<td></td>
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<tr>
<td>CITS F242</td>
<td>Routing and Switching Essentials</td>
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</tr>
<tr>
<td>CITS F262</td>
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<td>CITS F263</td>
<td>Network Security Penetration Testing</td>
<td></td>
</tr>
<tr>
<td>CITS F265</td>
<td>Directory Services Administration</td>
<td></td>
</tr>
<tr>
<td>CITS F282</td>
<td>IT Troubleshooting Skills</td>
<td></td>
</tr>
<tr>
<td>CITS F289</td>
<td>Information Technology: Topics</td>
<td></td>
</tr>
</tbody>
</table>

Pass a certification review requiring students to demonstrate proficiency in the following skill areas: operating systems, hardware, and network support and troubleshooting. ³

¹ As part of the certificate requirements, complete ABUS F154 or ANTH F100X, SOC F101X for the human relations requirement.

² May be repeated for different topics.

³ Prior to graduation, all students are required to pass a certification review that includes a hands-on scenario task and the development and presentation of a portfolio of work.

Instrumentation Technology Certificate

The instrumentation technology program will develop entry-level skills in industrial instrumentation. Courses combine the technical know-how, the use of state-of-the-art equipment and hands-on experience necessary for work in a variety of industrial instrumentation fields.

Students are taught the necessary objectives and skills sets required to take the entry-level Instrumentation, Systems and Automation Society certificate examination. This is a nationally recognized certification by industry partners; individuals holding this certification are sought after by industry partners to fill instrumentation technician positions worldwide.

As the process industries expand and automate, the need for qualified technicians increases. This need is currently being addressed by the Industrial Instrumentation & Controls Technology Alliance. CTC and the process technology program are active members of this national alliance.

Minimum Requirements for Instrumentation Technology Certificate: 32 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>General University Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (p. 106)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Certificate Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the certificate requirements. (p. 108)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Instrumentation Technology Program Requirements</strong></td>
<td></td>
</tr>
<tr>
<td>ELT F101</td>
<td>Basic Electronics: DC Physics</td>
<td>4</td>
</tr>
<tr>
<td>ELT F102</td>
<td>Basic Electronics: AC Physics</td>
<td>4</td>
</tr>
<tr>
<td>ELT F246</td>
<td>Electronic Industrial Instrumentation</td>
<td>3</td>
</tr>
<tr>
<td>PRT F140</td>
<td>Industrial Process Instrumentation I</td>
<td>3</td>
</tr>
<tr>
<td>PRT F144</td>
<td>Industrial Process Instrumentation II</td>
<td>3</td>
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<tr>
<td>PRT F240</td>
<td>Industrial Process Instrumentation III</td>
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</tbody>
</table>

Programs
Certificate

• Instrumentation Technology (p. 141)

Certificate, Instrumentation Technology Program Requirements

Students must earn a C grade or better in each course.

Minimum Requirements for Instrumentation Technology Certificate: 32 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
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<tr>
<td></td>
<td><strong>General University Requirements</strong></td>
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<td>Complete the general university requirements. (p. 106)</td>
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<tr>
<td></td>
<td><strong>Certificate Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the certificate requirements. (p. 108)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Instrumentation Technology Program Requirements</strong></td>
<td></td>
</tr>
<tr>
<td>ELT F101</td>
<td>Basic Electronics: DC Physics</td>
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<tr>
<td>ELT F102</td>
<td>Basic Electronics: AC Physics</td>
<td>4</td>
</tr>
<tr>
<td>ELT F246</td>
<td>Electronic Industrial Instrumentation</td>
<td>3</td>
</tr>
<tr>
<td>PRT F140</td>
<td>Industrial Process Instrumentation I</td>
<td>3</td>
</tr>
<tr>
<td>PRT F144</td>
<td>Industrial Process Instrumentation II</td>
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<tr>
<td>PRT F240</td>
<td>Industrial Process Instrumentation III</td>
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</table>
Interdisciplinary Studies

A.A.S. Degree

The interdisciplinary program provides flexibility to students who have educational goals that do not fit into one of the established majors or minors offered by the university. Help with the undergraduate application process, contact information for faculty advisors, and assistance for undergraduate interdisciplinary students is available at 907-474-6396 or the interdisciplinary studies website (http://www.uaf.edu/inds/).

Minimum Requirements for Interdisciplinary Studies A.A.S. Degree: 60 credits

Academic Advising Center - Division of General Studies
Interdisciplinary Studies (http://www.uaf.edu/inds/)
907-474-6396

Programs

Degree

• A.A.S., Interdisciplinary Studies (p. 142)

A.A.S., Interdisciplinary Studies

A.A.S. Degree

The interdisciplinary program provides flexibility to students who have educational goals that do not fit into one of the established majors or minors offered by the university. Help with the undergraduate application process, contact information for faculty advisors, and assistance for undergraduate interdisciplinary students are available at 907-474-6396 or at the interdisciplinary studies website (http://www.uaf.edu/inds/).

Minimum Requirements for Interdisciplinary Studies A.A.S. Degree: 60 credits

Community and Technical College
907-479-2436

Admission Requirements

Admissions Process for an Interdisciplinary Studies A.A.S

1. Contact the Academic Advising Center at 907-474-6396 or 888-823-8780 for materials, procedures and to make an appointment with an interdisciplinary studies advisor.

2. If you are not currently a UAF student or are attending as a nondegree student, you need to apply for admission to an Associate of Arts general program degree with the UAF Office of Admissions (https://www.uaf.edu/admissions/apply/). If you are currently active in an associate degree program at UAF, you do not need to reapply for admission and can skip this step.

3. Draft an interdisciplinary proposal which should include the following:
   • Your name and UA ID number
   • The degree type you are pursuing: A.A.S.
   • A proposed title of the interdisciplinary major
   • A description of your major. The description should include academic outcomes of the major, including skills and knowledge that will be gained. It can include information about how the major will prepare you for specific careers. In addition, it should explain how the proposed major differs from established UAF degree programs. Personal information can be included to explain why the proposed major is a good fit for you. You can also draft a list of courses that you would like to include in your major.
   • Note that an interdisciplinary major must include course work from more than one discipline, cannot be titled the same as an existing degree and must demonstrate a cohesive body of knowledge skills.

4. Contact faculty (three minimum) to serve as your interdisciplinary committee. One faculty member will serve as the chair/advisor. The faculty chair should be affiliated with an academic unit that provides the degree level you are seeking. You should arrange a committee meeting for all members to meet and discuss your proposal. At this meeting, the committee will review your interdisciplinary proposal and provide feedback to help you choose your title and proposed courses.

5. After receiving feedback and advice from your faculty committee, you will fill out an Interdisciplinary Studies Approval Form and attach the edited final draft of your interdisciplinary proposal. The form must be signed by you, each of your committee members and the dean of the Community and Technical College. The signed form and attached proposal are then sent to the interdisciplinary studies advisor, who will review the packet with the vice provost for final approval.

6. Once your interdisciplinary studies packet is approved, you will be notified by email and your DegreeWorks will be updated to show your new major’s courses. You will work with your committee chair as your primary academic advisor going forward.

7. Any changes to the approved curriculum are made only with the approval of your faculty committee chair and submitted on a UAF Undergraduate Petition form and signed by all necessary parties. Petitions should be submitted to the Interdisciplinary Studies program advisor who will review the packet with the vice provost for final approval.

8. The approved title of your major will appear on the transcript and diploma when you graduate as “Interdisciplinary Studies: Your Title.”

More information can be found on the interdisciplinary studies website (http://www.uaf.edu/inds/).

Program Requirements

Minimum Requirements for Interdisciplinary Studies A.A.S. Degree:
60 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
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<tr>
<td></td>
<td>General University Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (p. 106)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A.A.S. Degree and Interdisciplinary Studies Program Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the A.A.S. degree requirements. (p. 111)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Interdisciplinary studies</td>
<td></td>
</tr>
</tbody>
</table>

PRT F248 Valve Maintenance and Instrumentation 3
Select course work from more than one discipline to create a cohesive body of knowledge for a minimum of 30 credits. Courses must be approved by three faculty, the dean of UAF Community and Technical College, and the UAF vice provost.

See the Admission Requirements tab for more information on the approval process for the program requirements for the interdisciplinary studies major.

Note: Any changes to an approved interdisciplinary proposal need to be approved by the chair of your committee by petition and by the vice provost.

Local Knowledge Educator Certificate

The local knowledge educator certificate is a 30-credit undergraduate certificate program intended to provide individuals interested in the teaching profession with a benchmark credential that will set them on a path to a bachelor's degree in elementary or secondary education. 27-30 of the credits in the certificate program will apply to the elementary B.A. degree, or 18 of the credits will apply to a secondary B.A. degree.

The coursework in the local knowledge educator certificate program represents a collection of courses that have low barriers to entry (no prerequisites), fulfill the general university requirements for a certificate program, and provide an individual interested in working in a non-certificated K-12-based position (e.g., as a substitute teacher or a paraprofessional) with a strong introduction to the teaching profession and content knowledge relevant to work in a school context. The collection of classes can both enhance individual knowledge of Alaska and Alaska's Indigenous cultures, as well as equip future educators with tools that will help them incorporate their own local knowledge into K-12 classrooms now and in the future.

Minimum Requirements for Local Knowledge Educator Certificate: 30 credits

School of Education (http://www.uaf.edu/soe/)
907-474-7341

Programs Certificate

• Local Knowledge Educator (p. 143)

Certificate, Local Knowledge Educator

Admission Requirements

For admission to certificate programs, official documentation must be provided showing that the applicant:

1. is at least 18 years old, or
2. has a high school diploma, or
3. has a General Educational Development (GED) diploma.

Applicants under the age of 18 who will not have a high school diploma or GED before the start of their first semester are not admissible but may take courses as a nondegree student. Please note that in order to qualify for federal financial aid, students must have either a high school diploma or a GED.

TRANSFER STUDENTS

Transfer students are eligible for admission if they left their previous accredited institution(s) in good standing. Admission status will be determined on an individual basis if a student attended an unaccredited/nonregionally accredited postsecondary institution.

HIGH SCHOOL STUDENTS

High school students may take classes at UAF. There are two enrollment options for students interested in certificate or associate degree programs: Secondary Student Enrollment and TECH PREP. Both have specific registration requirements but do not require admission to UAF.

HOME-SCHOoled STUDENTS

Home-schooled students may be admitted to an associate or certificate program if the student is at least 18 years old, holds a GED, graduated from a state-sponsored correspondence program with a high school diploma, or with the approval of the director of admissions.

Program Requirements

Students must earn a C- or better in each course.

Minimum Requirements for Local Knowledge Educator Certificate: 30 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General University Requirements</td>
<td>Complete the general university requirements. (p. 106)</td>
<td></td>
</tr>
<tr>
<td>Certificate Requirements</td>
<td>Complete the certificate requirements. (p. 108)</td>
<td></td>
</tr>
<tr>
<td>As part of the certificate requirements, complete:</td>
<td>Communication</td>
<td></td>
</tr>
<tr>
<td>WRTG F111X</td>
<td>Writing Across Contexts</td>
<td></td>
</tr>
<tr>
<td>or COJO F121X</td>
<td>Introduction to Interpersonal Communication</td>
<td></td>
</tr>
<tr>
<td>or COJO F131X</td>
<td>Fundamentals of Oral Communication: Group Context</td>
<td></td>
</tr>
<tr>
<td>or COJO F141X</td>
<td>Fundamentals of Oral Communication: Public Context</td>
<td></td>
</tr>
<tr>
<td>Computation</td>
<td>MATH F151X College Algebra for Calculus</td>
<td></td>
</tr>
<tr>
<td>or ECE F117</td>
<td>Practical Math Skills</td>
<td></td>
</tr>
<tr>
<td>or MATH F105</td>
<td>Intermediate Algebra</td>
<td></td>
</tr>
<tr>
<td>or MATH F122X</td>
<td>Essential Precalculus with Applications</td>
<td></td>
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<tr>
<td>Human Relations</td>
<td>ED F245 Child Development</td>
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<tr>
<td>Local Knowledge Educator Program Requirements</td>
<td>Complete the following:</td>
<td></td>
</tr>
<tr>
<td>ANL F141X</td>
<td>Beginning Dene / Athabascan I</td>
<td>3-5</td>
</tr>
<tr>
<td>ANL F287</td>
<td>Teaching Methods for Alaska Native Languages 2,3</td>
<td>3</td>
</tr>
<tr>
<td>or ED F486</td>
<td>Media Literacy</td>
<td></td>
</tr>
<tr>
<td>ANS F161X</td>
<td>Introduction to Alaska Native Performance</td>
<td>3</td>
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</tbody>
</table>
**Native Language Education Certificate; A.A.S. Degree**

The Native language education program trains teachers of Native language and culture, providing course work in Athabascan, Inupiaq Eskimo or Central Yup'ik Eskimo. The certificate and degree are recognized by some Alaska school districts and serve as steps toward a four-year degree. Candidates for the Central Yup'ik option must score advanced oral proficiency on an oral proficiency exam before being admitted into the program.

Minimum Requirements for Native Language Education Certificate: 30 credits; for A.A.S. Degree: 60 credits

College of Liberal Arts
Alaska Native Languages Program (http://www.uaf.edu/anlc/classes/)
907-474-7874

**Programs**

**Degree**
- A.A.S., Native Language Education (p. 144)

**Certificate**
- Native Language Education (p. 145)

**A.A.S., Native Language Education**

**Program Requirements**

Students must earn a C- grade or better in each course.

**Minimum Requirements for Native Language Education A.A.S.: 60 credits**

**CONCENTRATIONS:** ATHABASCAN (P. 144), INUPIAQ ESKIMO (P. 144), CENTRAL YUP'IK ESKIMO (P. 144)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
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<td>General University Requirements</td>
<td>Complete the general university requirements. (p. 106)</td>
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</tr>
<tr>
<td>A.A.S. Degree Requirements</td>
<td>Complete the A.A.S. degree requirements. (p. 111)</td>
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</tr>
<tr>
<td>Native Language Education Program Requirements</td>
<td>Complete one of the following concentrations:</td>
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**Athabascan**

<table>
<thead>
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<th>Title</th>
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<tbody>
<tr>
<td>ANL F108</td>
<td>Beginning Athabascan Literacy</td>
<td>3</td>
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<tr>
<td>ANL F208</td>
<td>Advanced Athabascan Literacy</td>
<td>3</td>
</tr>
<tr>
<td>ANL F251X</td>
<td>Introduction to Athabascan Linguistics</td>
<td>3</td>
</tr>
<tr>
<td>ANL F256</td>
<td>Introduction to Alaska Native Languages: History, Status and Maintenance</td>
<td>3</td>
</tr>
<tr>
<td>ANL F287</td>
<td>Teaching Methods for Alaska Native Languages</td>
<td>3</td>
</tr>
<tr>
<td>ANL F288</td>
<td>Curriculum and Materials Development for Alaska Native Languages</td>
<td>3</td>
</tr>
<tr>
<td>ED F299</td>
<td>Practicum in Education</td>
<td>6</td>
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</table>

**Inupiaq Eskimo**

Candidates must demonstrate proficiency or complete a two-semester sequence in the language of the degree.

<table>
<thead>
<tr>
<th>Code</th>
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<th>Credits</th>
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<tr>
<td>ANL F256</td>
<td>Introduction to Alaska Native Languages: History, Status and Maintenance</td>
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<td>ANL F287</td>
<td>Teaching Methods for Alaska Native Languages</td>
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<tr>
<td>ANL F288</td>
<td>Curriculum and Materials Development for Alaska Native Languages</td>
<td>3</td>
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<tr>
<td>ED F299</td>
<td>Practicum in Education</td>
<td>6</td>
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<tr>
<td>INU F118</td>
<td>Inupiaq Orthography</td>
<td>3</td>
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<tr>
<td>INU F218</td>
<td>Inupiaq Composition</td>
<td>3</td>
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<tr>
<td>Eskimo linguistics elective</td>
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</table>

Complete 6 credits from the following: 6

**Central Yup'ik Eskimo**

Demonstrate advanced oral/aural proficiency in Yup'ik.

<table>
<thead>
<tr>
<th>Code</th>
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<tbody>
<tr>
<td>ANL F199</td>
<td>Practicum in Native Language Education</td>
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<td>Introduction to Alaska Native Languages: History, Status and Maintenance</td>
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<tr>
<td>ANL F287</td>
<td>Teaching Methods for Alaska Native Languages</td>
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</tbody>
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1 or another 3-5 credit Alaska Native Language course ending in X
2 of RAHI Local Languages Preservation Class
3 can substitute for ED F486 Media Literacy
ANL F288  Curriculum and Materials Development for Alaska Native Languages  3
ED F299  Practicum in Education  3
YUP F109  Central Yup'ik Orthography  3
YUP F208  Yup'ik Composition  3
YUP F250  Yup'ik Literature for Children  3
YUP F251  Teaching Beginning Yup'ik Reading and Writing  3

See Alaska Native Languages (p. 178).

Certificate, Native Language Education

Program Requirements

Students must earn a C- or better in each course.

Minimum Requirements for Native Language Education Certificate: 30 credits

CONCENTRATIONS: ATHABASCAN (P. 145), INUPIAQ ESKIMO (P. 145), CENTRAL YUP’IK ESKIMO (P. 145)

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>ANL F108</td>
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<td>Advanced Athabascan Literacy</td>
<td>3</td>
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<tr>
<td>ANL F251X</td>
<td>Introduction to Athabascan Linguistics</td>
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<td>Inupiaq Orthography</td>
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<td>Inupiaq Composition</td>
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<tr>
<td>Eskimo linguistics elective</td>
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Complete 6 credits from each of the following practicums: 12

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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</tr>
</thead>
<tbody>
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</tr>
<tr>
<td>ED F299</td>
<td>Practicum in Education</td>
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</tr>
</tbody>
</table>

Inupiaq Eskimo

Candidates must demonstrate proficiency or complete a two-semester sequence in the language of the degree.

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<tbody>
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<td>Introduction to Alaska Native Languages: History, Status and Maintenance</td>
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<td>ANL F287</td>
<td>Teaching Methods for Alaska Native Languages</td>
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<td>ANL F288</td>
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<td>Practicum in Education</td>
<td>3</td>
</tr>
</tbody>
</table>

Central Yup'ik Eskimo

Demonstrate advanced oral/aural proficiency in Yup'ik.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
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</tr>
<tr>
<td>ED F299</td>
<td>Practicum in Education</td>
<td>3</td>
</tr>
<tr>
<td>YUP F109</td>
<td>Central Yup'ik Orthography</td>
<td>3</td>
</tr>
<tr>
<td>YUP F130</td>
<td>Beginning Yup'ik Grammar</td>
<td>3</td>
</tr>
<tr>
<td>YUP F208</td>
<td>Yup'ik Composition</td>
<td>3</td>
</tr>
<tr>
<td>YUP F250</td>
<td>Yup'ik Literature for Children</td>
<td>3</td>
</tr>
<tr>
<td>YUP F251</td>
<td>Teaching Beginning Yup'ik Reading and Writing</td>
<td>3</td>
</tr>
</tbody>
</table>

Paralegal Studies

A.A.S. Degree

Paralegals assist in the delivery of legal services under the supervision of a practicing lawyer. Paralegals conduct client and witness interviews; engage in basic fact-finding and investigation; draft correspondence, reports, pleadings, motions and other legal documents; conduct legal research; and assist in discovery and trial preparation. Paralegals are in high demand in private law offices, local, state and federal agencies, and
legal departments of large corporations. Employment opportunities exist both in Alaska and nationwide in private law offices large and small; in myriad local, state and federal government offices and agencies; and in corporations that retain in-house legal departments.

Note: Program curriculum is approved by the American Bar Association. Graduates are not authorized to provide direct legal services to the public. The paralegal studies program provides training for paralegals and legal assistants who are authorized to perform substantive legal work under the supervision of a lawyer. The program does not train lawyers or legal administrators.

Minimum Requirements for Paralegal Studies A.A.S. Degree: 60 credits

Community and Technical College
Paralegal Studies (https://www.ctc.uaf.edu/programs/paralegal-studies/)
907-455-2800

Programs
Degree
• A.A.S., Paralegal Studies (p. 146)

A.A.S., Paralegal Studies

Admission Requirements
• Complete WRTG F111X with a grade of C or better prior to admission to the program.

Program Requirements
Students must earn a C-grade or better in each course.

Minimum Requirements for Paralegal
A.A.S.: 60 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td></td>
<td><strong>General University Requirements</strong></td>
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<td>Complete the general university requirements. (p. 106)</td>
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<td></td>
<td><strong>A.A.S. Degree Requirements</strong></td>
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</tr>
<tr>
<td></td>
<td>Complete the A.A.S. degree requirements. (p. 111)</td>
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</tr>
<tr>
<td></td>
<td><strong>Paralegal Program Requirements</strong></td>
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</tr>
<tr>
<td>JUST F110X</td>
<td>Introduction to Justice</td>
<td>3</td>
</tr>
<tr>
<td>or PS F101X</td>
<td>Introduction to American Government and Politics</td>
<td></td>
</tr>
<tr>
<td>PLS F102</td>
<td>Introduction to Paralegal Studies</td>
<td>3</td>
</tr>
<tr>
<td>PLS F105</td>
<td>Ethics for Paralegals</td>
<td>3</td>
</tr>
<tr>
<td>PLS F201</td>
<td>Practical Paralegal Skills</td>
<td>3</td>
</tr>
<tr>
<td>PLS F210</td>
<td>Civil Procedure</td>
<td>3</td>
</tr>
<tr>
<td>PLS F240</td>
<td>Family Law</td>
<td>3</td>
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<tr>
<td>PLS F260</td>
<td>Legal Technology</td>
<td>3</td>
</tr>
<tr>
<td>PLS F270</td>
<td>Constitutional Law for Paralegals</td>
<td>3</td>
</tr>
<tr>
<td>PLS F280</td>
<td>Legal Research and Writing for Paralegals</td>
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<tr>
<td>PLS F285</td>
<td>Advanced Legal Writing</td>
<td>3</td>
</tr>
<tr>
<td>PLS F299</td>
<td>Paralegal Studies Internship</td>
<td>3</td>
</tr>
<tr>
<td>Complete four from the following:</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>PLS F203</td>
<td>Torts</td>
<td></td>
</tr>
<tr>
<td>PLS F213</td>
<td>Criminal Law for Paralegals</td>
<td></td>
</tr>
<tr>
<td>PLS F215</td>
<td>Contracts/Real Property</td>
<td></td>
</tr>
</tbody>
</table>

Note: Students interested in the paralegal studies degree should consult the program coordinator before enrolling in paralegal courses. Transfer credits for paralegal courses completed at other institutions are subject to approval by the program coordinator. No more than 15 credit hours of paralegal courses completed at other institutions will be applied toward completion of the A.A.S. degree in paralegal studies at UAF.

Paramedicine

A.A.S. Degree

The Community and Technical College paramedicine program is accredited by the Commission on Accreditation of Allied Health Education Programs (http://www.caahep.org/) upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP).

Commission on Accreditation of Allied Health Education Programs
25400 US Highway 19 N., Suite 158
Clearwater, FL 33763
727-210-2350

To contact CoAEMSP (https://coaemsp.org/):
8301 Lakeview Parkway
Suite 111-312
Rowlett, TX 75088
214-703-8445
FAX 214-703-8992

The paramedicine program offers excellent instruction, clinical experience, state-of-the-art simulation labs and practical vocational experience for the student seeking to become a paramedic. Upon completion of the paramedicine program, students will be able to take the national paramedic exam. After receiving national certification, students can apply for a paramedic license through the Alaska State Medical Board.

An application must be completed for admission into the paramedicine program. Applications are reviewed by the program's medical director and advisory board.

Applicants must have a current EMT basic certification (or have completed EMS F170), and have completed HLTH F114.

Minimum Requirements for Paramedicine A.A.S. Degree: 69-73 credits

Community and Technical College
Fire Science Department (http://www.ctc.uaf.edu/programs/paramedicine/)
907-455-2800

Programs
Degree
• A.A.S., Paramedicine (p. 147)
A.A.S., Paramedicine

Admission Requirements
• Applicants must have a current EMT basic certification (or have completed EMS F170) and have completed HLTH F114.

Program Requirements
Students must earn a C- grade or better in each course.

Minimum Requirements for Paramedicine
A.A.S.: 69-73 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMS F170</td>
<td>EMT: Emergency Medical Technician I</td>
<td>6</td>
</tr>
<tr>
<td>EMS F181</td>
<td>Clinical Rotation I</td>
<td>4</td>
</tr>
<tr>
<td>EMS F183</td>
<td>Clinical Rotation II</td>
<td>4</td>
</tr>
<tr>
<td>EMS F280</td>
<td>Paramedicine I</td>
<td>12</td>
</tr>
<tr>
<td>EMS F282</td>
<td>Paramedicine II</td>
<td>12</td>
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<tr>
<td>EMS F283</td>
<td>Paramedic Internship</td>
<td>12</td>
</tr>
<tr>
<td>HLTH F114</td>
<td>Fundamentals of Anatomy and Physiology</td>
<td>4-8</td>
</tr>
<tr>
<td>or BIOL F111X and BIOL F112X</td>
<td>Human Anatomy and Physiology I and Human Anatomy and Physiology II</td>
<td></td>
</tr>
</tbody>
</table>

A.A.S., Piloting, Professional

Program Requirements
Students must earn a C- grade or better in each course.

Minimum Requirements for Professional Piloting A.A.S.: 60 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General University Requirements</td>
<td>Complete the general university requirements. (p. 106)</td>
<td></td>
</tr>
<tr>
<td>A.A.S. Degree Requirements</td>
<td>Complete the A.A.S. degree requirements. (p. 111)</td>
<td></td>
</tr>
<tr>
<td>Professional Piloting Program Requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AVTY F100</td>
<td>Private Pilot Ground School</td>
<td>4</td>
</tr>
<tr>
<td>AVTY F102</td>
<td>Commercial Ground Instruction</td>
<td>3</td>
</tr>
<tr>
<td>AVTY F155</td>
<td>Preventive Maintenance (or AFPM advisor-approved course(s))</td>
<td>3</td>
</tr>
<tr>
<td>AVTY F200</td>
<td>Instrument Ground School</td>
<td>4</td>
</tr>
<tr>
<td>AVTY F231</td>
<td>Arctic Survival</td>
<td>3</td>
</tr>
<tr>
<td>AVTY F235</td>
<td>Elements of Weather</td>
<td>3</td>
</tr>
<tr>
<td>Program-approved major specialty electives</td>
<td>15</td>
<td></td>
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<tr>
<td>General electives</td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

1 See webpage or contact department for suggested list of courses, many of which the applicant may obtain credit for based upon experience or ratings.

Process Technology

A.A.S. Degree

The process technology program prepares students for employment as operations technicians in the process industry, which includes oil and gas production, mining and milling, transportation and refining, chemical manufacturing, power generation, utilities, wastewater treatment facilities maintenance, and food processing.

This A.A.S. degree program incorporates technical and academic courses covering topics such as pumps and turbines, instrumentation, safety and quality control. Summer internships give students valuable practical experience and exposure to the true nature of process technology careers.

Minimum Requirements for Process Technology A.A.S. Degree: 63 credits

Community and Technical College
907-455-2800
Professional Piloting (https://www.ctc.uaf.edu/programs/piloting-professional/)

Programs Degree
• A.A.S., Paramedicine (p. 147)
A.A.S., Process Technology
Program Requirements
Students must earn a C- grade or better in each course.

Minimum Requirements for Process Technology A.A.S.: 63 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td></td>
<td><strong>General University Requirements</strong></td>
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<tr>
<td></td>
<td>Complete the general university requirements. (p. 106)</td>
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<tr>
<td></td>
<td><strong>A.A.S. Degree Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the A.A.S. degree requirements. (p. 111)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Demonstrate competence in computer technology skills (through the process technology program assessment) or select one from the following:</td>
<td></td>
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<tr>
<td></td>
<td>CIOS F150 Computer Business Applications</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>DRT F110 Computer Literacy for Technicians</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A program advisor-approved computer applications course</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Process Technology Program Requirements</strong></td>
<td></td>
</tr>
<tr>
<td>PHYS F115X and CHEM F100X</td>
<td>Physical Sciences and Chemistry in Complex Systems (or 8 credits of program advisor-approved natural science courses)</td>
<td>8</td>
</tr>
<tr>
<td>PRT F101</td>
<td>Introduction to Process Technology</td>
<td>3</td>
</tr>
<tr>
<td>PRT F110</td>
<td>Introduction to Occupational Safety, Health and Environmental Awareness</td>
<td>3</td>
</tr>
<tr>
<td>PRT F130</td>
<td>Process Technology I: Equipment</td>
<td>4</td>
</tr>
<tr>
<td>PRT F140</td>
<td>Industrial Process Instrumentation I</td>
<td>3</td>
</tr>
<tr>
<td>PRT F144</td>
<td>Industrial Process Instrumentation II</td>
<td>3</td>
</tr>
<tr>
<td>PRT F230</td>
<td>Process Technology II: Systems</td>
<td>4</td>
</tr>
<tr>
<td>PRT F231</td>
<td>Process Technology III: Operations</td>
<td>4</td>
</tr>
<tr>
<td>PRT F250</td>
<td>Process Troubleshooting</td>
<td>3</td>
</tr>
<tr>
<td>PRT F255</td>
<td>Quality Concepts for the Process Industry</td>
<td>1</td>
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<tr>
<td></td>
<td>Major elective credits</td>
<td>9</td>
</tr>
</tbody>
</table>

1 Students must earn a C grade or better in each course.
2 Electives must be approved by the process technology program advisor.

Rural Human Services Certificate

The rural human services program is designed to develop strong and healthy rural Alaska Native individuals, families and communities. The RHS program provides entry-level training for students preparing for careers as natural helpers/healers in village-based public, private and volunteer human service organizations. The curriculum draws extensively from Indigenous knowledge and wisdom about health and well-being and reflects a strong multicultural orientation that validates, incorporates and builds on indigenous values and principles.

The certificate program is a concentrated course of study focused on rural behavioral health services. Both the Alaska Division of Behavioral Health and the Alaska Native Tribal Health Consortium have designated many of the credits earned through the RHS program as satisfying credentialing training requirements.

The certificate program provides additional credentials for service providers who work in related fields and would like additional training in rural behavioral health services. Providers who may want such training could include health aides, family service workers, correctional workers and teachers. The RHS program is offered as a closed cohort with monthly, week-long intensives for two academic years.

Admission is open to anyone employed by a regional Native health corporation or local entity providing village-based human services, or to individuals recognized by their communities as natural helpers/healers. A high school diploma or GED and/or previous training or work experience in the delivery of village-based human services are recommended but not required.

This degree program is delivered collaboratively within the UA system.

Minimum Requirements for Rural Human Services Certificate: 32 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td></td>
<td><strong>General University Requirements</strong></td>
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</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (p. 106)</td>
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<tr>
<td></td>
<td><strong>Certificate Requirements</strong></td>
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<tr>
<td></td>
<td>Complete the certificate requirements. (p. 108)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Rural Human Services Program Requirements</strong></td>
<td></td>
</tr>
<tr>
<td>RHS F120</td>
<td>Family Systems</td>
<td>2</td>
</tr>
<tr>
<td>RHS F130</td>
<td>Processes of Community Change</td>
<td>2</td>
</tr>
<tr>
<td>RHS F140</td>
<td>Alaska Native Values and Principles</td>
<td>1</td>
</tr>
<tr>
<td>RHS F150</td>
<td>Introduction to Rural Counseling</td>
<td>2</td>
</tr>
<tr>
<td>RHS F220</td>
<td>Family Systems II</td>
<td>2</td>
</tr>
<tr>
<td>RHS F250</td>
<td>Rural Counseling II</td>
<td>2</td>
</tr>
<tr>
<td>RHS F260</td>
<td>Addictions: Intervention and Treatment</td>
<td>2</td>
</tr>
<tr>
<td>RHS F265</td>
<td>Interpersonal Violence</td>
<td>2</td>
</tr>
<tr>
<td>RHS F275</td>
<td>Introduction to Recovery and Mental Illness</td>
<td>2</td>
</tr>
<tr>
<td>RHS F285</td>
<td>Case Management</td>
<td>2</td>
</tr>
<tr>
<td>RHS F287</td>
<td>Rural Human Services Practicum</td>
<td>4</td>
</tr>
<tr>
<td>RHS F290</td>
<td>Grief and Healing</td>
<td>2</td>
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</tbody>
</table>
As part of the certificate requirements, complete RHS F110 and RHS F115 for the human relations requirement. The communication and computation courses must be completed from the certificate requirements.

The Alcohol and Drug Abuse Certification review board has approved these courses toward certification or recertification of substance abuse counselors in the State of Alaska.

Note: Students spend time in intensive study at selected delivery sites.

Safety, Health and Environmental Awareness Technology

Certificate

ADMISSION TO THIS PROGRAM IS CURRENTLY SUSPENDED.

This program develops entry-level skills in industrial safety, health and environmental awareness. Courses combine the technical know-how, use of state-of-the-art equipment and hands-on experience necessary for students to obtain work in a variety of safety-related industrial fields.

Students are taught the necessary objectives and skills required to take an entry-level Occupational Health and Safety Technologist exam when coupled with other requirements as set forth by the Council on Certification of Health, Environmental and Safety Technologists.

As the process industries expand and automate, the need for qualified safety technicians increases. The Community and Technical College and the process technology program are members of the American Society of Safety Engineers.

Minimum Requirements for Safety, Health and Environmental Awareness Technology Certificate: 37 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>OSH F108</td>
<td>Injury Prevention and Risk Management</td>
<td>4</td>
</tr>
<tr>
<td>OSH F110</td>
<td>Program Assessments, Development and Implementation</td>
<td>4</td>
</tr>
<tr>
<td>OSH F120</td>
<td>Safety Program Management and Recordkeeping</td>
<td>3</td>
</tr>
<tr>
<td>OSH F180</td>
<td>Introduction to Industrial Hygiene</td>
<td>4</td>
</tr>
<tr>
<td>OSH F201</td>
<td>Workplace Injury and Incident Evaluations</td>
<td>4</td>
</tr>
<tr>
<td>OSH F250</td>
<td>Hazardous Material Operation</td>
<td>3</td>
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<tr>
<td>PRT F101</td>
<td>Introduction to Process Technology</td>
<td>3</td>
</tr>
<tr>
<td>PRT F110</td>
<td>Introduction to Occupational Safety, Health and Environmental Awareness</td>
<td>3</td>
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</tbody>
</table>

Tribal Management

Certificate; A.A.S. Degree

The tribal management program teaches the job-related skills and knowledge needed for positions within tribal and local governments and other organizations in rural Alaska. In response to the broad variety of job-related skills needed by tribal councils, administrators and staff, the tribal management certificate and A.A.S. degree programs are designed to allow students to tailor their education for specific employment-related skills. Students perform specific tasks, learn basic management rationale and explore issues in tribal government. The tribal management program provides students with fundamental knowledge of tribal governance and finance as well as hands-on education and training in subject areas important to tribal governments. Students work closely with their academic advisor to choose courses in one or more areas of study that target their employment needs.

Students entering either the certificate or A.A.S. degree program will meet with a faculty advisor to discuss program content, requirements and planning.

Minimum Requirements for Tribal Management Certificate: 30 credits; for A.A.S. Degree: 60 credits

<table>
<thead>
<tr>
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<th>Title</th>
<th>Credits</th>
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<tbody>
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</tbody>
</table>

Programs

Certificate

- Safety, Health and Environmental Awareness Technology (p. 149) — Admission to this program is currently suspended.

Certificate, Safety, Health and Environmental Awareness Technology

Program Requirements

Admission to this program is currently suspended.

Students must earn a C grade or better in each course.

Programs

Degree

- A.A.S., Tribal Management (p. 150)
Certificate
- Tribal Management (p. 151)

A.A.S., Tribal Management

Program Requirements
Students must earn a C- grade or better in each course.

Minimum Requirements for Tribal Management A.A.S.: 60 credits

<table>
<thead>
<tr>
<th>Code</th>
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<th>Credits</th>
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<tr>
<td></td>
<td>General University Requirements</td>
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<td></td>
<td>Complete the general university requirements. (p. 106)</td>
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<tr>
<td></td>
<td>A.A.S. Degree Requirements</td>
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<tr>
<td></td>
<td>Complete the A.A.S. degree requirements. (p. 111)</td>
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</tr>
<tr>
<td></td>
<td>Tribal Management Program Requirements</td>
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</tr>
<tr>
<td>TM F101</td>
<td>Introduction to Tribal Government in Alaska</td>
<td>3</td>
</tr>
<tr>
<td>TM F105</td>
<td>Introduction to Managing Tribal Governments</td>
<td>3</td>
</tr>
<tr>
<td>TM F199</td>
<td>Tribal Management Practicum I</td>
<td>3</td>
</tr>
<tr>
<td>TM F201</td>
<td>Tribal Government in Alaska II</td>
<td>3</td>
</tr>
<tr>
<td>TM F205</td>
<td>Managing Tribal Governments II</td>
<td>3</td>
</tr>
<tr>
<td>TM F299</td>
<td>Tribal Management Practicum II</td>
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<tr>
<td></td>
<td>Complete 27 credits from the following: 1</td>
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<tr>
<td></td>
<td>Environmental and Natural Resource Management</td>
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<tr>
<td>BIOL F104X</td>
<td>Natural History of Alaska</td>
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<tr>
<td>ENVI F101</td>
<td>Introduction to Environmental Science</td>
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<tr>
<td>FISH F101</td>
<td>Introduction to Fisheries</td>
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<td>FISH F261</td>
<td>Introduction to Fisheries Utilization</td>
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<tr>
<td>NRM F101</td>
<td>Natural Resources Conservation and Policy</td>
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<td>NRM F204</td>
<td>Public Lands Law and Policy</td>
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<tr>
<td>RD F245</td>
<td>Fisheries and Marine Wildlife Development in Rural Alaska</td>
<td></td>
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<tr>
<td>RD F255</td>
<td>Rural Alaska Land Issues</td>
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<tr>
<td>RD F265</td>
<td>Perspectives on Subsistence in Alaska</td>
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<td>RD F280</td>
<td>Resource Management Research Techniques</td>
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<tr>
<td>TM F120</td>
<td>Introduction to Tribal Natural Resources Stewardship</td>
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<tr>
<td>TM F140</td>
<td>Introduction to Geospatial Data</td>
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<tr>
<td>TM F141</td>
<td>Practical GIS for Rural Alaska</td>
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<td>TM F142</td>
<td>Practical GIS Project Design</td>
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<tr>
<td>TM F182</td>
<td>Introduction to NEPA for Rural Transportation</td>
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<tr>
<td>TM F225</td>
<td>Cross Connections: Adapting and Integrating Principles of Management and Conservation</td>
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<tr>
<td></td>
<td>Community Health and Wellness</td>
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<tr>
<td>ANS F242X</td>
<td>Indigenous Cultures of Alaska</td>
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<tr>
<td>HUMS F105</td>
<td>Personal Awareness and Growth</td>
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<tr>
<td>HUMS F120</td>
<td>Cultural Diversity in Human Services</td>
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<tr>
<td></td>
<td>HUMS F205</td>
<td>Basic Principles of Group Counseling</td>
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<tr>
<td></td>
<td>HUMS F260</td>
<td>History of Alcohol in Alaska</td>
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<tr>
<td></td>
<td>PSY F101X</td>
<td>Introduction to Psychology</td>
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<tr>
<td></td>
<td>RHS F130</td>
<td>Processes of Community Change</td>
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<tr>
<td></td>
<td>RHS F140</td>
<td>Alaska Native Values and Principles</td>
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<tr>
<td></td>
<td>RHS F150</td>
<td>Introduction to Rural Counseling</td>
</tr>
<tr>
<td></td>
<td>RHS F275</td>
<td>Introduction to Recovery and Mental Illness</td>
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<td></td>
<td>RHS F285</td>
<td>Case Management</td>
</tr>
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<td></td>
<td>RNS F101</td>
<td>Rural Nutrition and Health Change</td>
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<td></td>
<td>RNS F105</td>
<td>Nutrition Science for the Generations</td>
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<td>RNS F120</td>
<td>Alaska Native Food Systems</td>
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<td>RNS F201</td>
<td>Community Nutrition Interventions</td>
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<td></td>
<td>RNS F210</td>
<td>Introduction to Rural Nutrition Counseling</td>
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<tr>
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<td>SWK F103X</td>
<td>Introduction to Social Work</td>
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<tr>
<td></td>
<td>SWK F220</td>
<td>Ethics, Values and Social Work Practice</td>
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<td>SWK F320</td>
<td>Rural Social Work</td>
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<td></td>
<td>Tribal Governance and Law</td>
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<td>ANS F310</td>
<td>Alaska Native and Comparative Indigenous Land Settlements</td>
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<td>ANS F325</td>
<td>Alaska Native and Comparative Tribal Self-Government</td>
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<tr>
<td>PS F100X</td>
<td>Political Economy</td>
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</tr>
<tr>
<td>PS/ACNS F205</td>
<td>Leadership, Citizenship and Choice</td>
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</tr>
<tr>
<td>PS F212</td>
<td>Introduction to Public Administration</td>
<td></td>
</tr>
<tr>
<td>PS F263</td>
<td>Alaska Native Politics</td>
<td></td>
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<tr>
<td>RD F110</td>
<td>Alaska Native Claims Settlement Act: Land Claims in the 21st Century</td>
<td></td>
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<tr>
<td>RD F265</td>
<td>Perspectives on Subsistence in Alaska</td>
<td></td>
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<tr>
<td>TM F110</td>
<td>Tribal Court Development for Alaska Tribes</td>
<td></td>
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<tr>
<td>TM F111</td>
<td>Children's Topics in Tribal Justice</td>
<td></td>
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<tr>
<td>TM F112</td>
<td>Federal Indian Law for Alaska Tribes</td>
<td></td>
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<tr>
<td>TM F113</td>
<td>Tribal Code Development</td>
<td></td>
</tr>
<tr>
<td>TM F114</td>
<td>Tribal Justice Responses to Community and Domestic Violence</td>
<td></td>
</tr>
<tr>
<td>TM F115</td>
<td>Tribal Court Administration</td>
<td></td>
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<tr>
<td>TM F116</td>
<td>Juvenile Justice in Tribal Court</td>
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<tr>
<td>TM F117</td>
<td>Tribal Court Enforcement of Decisions</td>
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<tr>
<td>TM F118</td>
<td>Tribal Community and Restorative Justice</td>
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<td>TM F250</td>
<td>Current Topics in Tribal Government</td>
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<tr>
<td></td>
<td>Community and Economic Development</td>
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</tr>
<tr>
<td>ABUS F101</td>
<td>Principles of Accounting I</td>
<td></td>
</tr>
<tr>
<td>ABUS F151</td>
<td>Village-based Entrepreneurship</td>
<td></td>
</tr>
<tr>
<td>ABUS F158</td>
<td>Introduction to Tourism</td>
<td></td>
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<tr>
<td>ABUS F161</td>
<td>Personal and Business Finance</td>
<td></td>
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<tr>
<td>ABUS F179</td>
<td>Fundamentals of Supervision</td>
<td></td>
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<tr>
<td>ABUS F235</td>
<td>Fund Accounting for Nonprofits</td>
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<tr>
<td>ABUS F263</td>
<td>Public Relations</td>
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<tr>
<td>BA F151X</td>
<td>Introduction to Business</td>
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</tr>
<tr>
<td>CTT F104</td>
<td>Basic Communication and Employability Skills</td>
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</tr>
</tbody>
</table>
Certificate, Tribal Management

Program Requirements

Students must earn a C- or better in each course.

Minimum Requirements for Tribal Management Certificate: 30 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General University Requirements</td>
<td></td>
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<tr>
<td></td>
<td>Complete the general university requirements. (p. 106)</td>
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<tr>
<td></td>
<td>Certificate Requirements</td>
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<tr>
<td></td>
<td>Complete the certificate requirements. (p. 108)</td>
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</tr>
<tr>
<td></td>
<td>Tribal Management Program Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TM F101 Introduction to Tribal Government in Alaska</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>TM F105 Introduction to Managing Tribal Governments</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>TM F199 Tribal Management Practicum I</td>
<td>3</td>
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<tr>
<td></td>
<td>Complete 12 credits from the following:</td>
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<tr>
<td></td>
<td>Environmental and Natural Resource Management</td>
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<tr>
<td></td>
<td>BIOL F104X Natural History of Alaska</td>
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<tr>
<td></td>
<td>ENVI F101 Introduction to Environmental Science</td>
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<td></td>
<td>FISH F101 Introduction to Fisheries</td>
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<td>NRM F101 Natural Resources Conservation and Policy</td>
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<td>RD F265 Perspectives on Subsistence in Alaska</td>
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<td></td>
<td>TM F120 Introduction to Tribal Natural Resources Stewardship</td>
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<td></td>
<td>TM F140 Introduction to Geospatial Data</td>
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<td></td>
<td>TM F141 Practical GIS for Rural Alaska</td>
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<td></td>
<td>TM F182 Introduction to NEPA for Rural Transportation</td>
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<tr>
<td></td>
<td>Community Health and Wellness</td>
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<tr>
<td></td>
<td>ANS F242X Indigenous Cultures of Alaska</td>
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<td></td>
<td>HUMS F101 Introduction to Human Services</td>
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<td></td>
<td>HUMS F105 Personal Awareness and Growth</td>
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<td></td>
<td>HUMS F260 History of Alcohol in Alaska</td>
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<tr>
<td></td>
<td>PSY F101X Introduction to Psychology</td>
<td></td>
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<td></td>
<td>RHS F130 Processes of Community Change</td>
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<tr>
<td></td>
<td>RNS F201 Community Nutrition Interventions</td>
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<tr>
<td></td>
<td>RNS F210 Introduction to Rural Nutrition Counseling</td>
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<tr>
<td></td>
<td>Tribal Governance and Law</td>
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<tr>
<td></td>
<td>PS F100X Political Economy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PS/ACNS F205 Leadership, Citizenship and Choice</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PS F263 Alaska Native Politics</td>
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<tr>
<td></td>
<td>RD F110 Alaska Native Claims Settlement Act: Land Claims in the 21st Century</td>
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<td></td>
<td>TM F110 Tribal Court Development for Alaska Tribes</td>
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<td></td>
<td>TM F111 Children's Topics in Tribal Justice</td>
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<td>TM F115 Tribal Court Administration</td>
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<td></td>
<td>TM F250 Current Topics in Tribal Government</td>
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<td></td>
<td>Community and Economic Development</td>
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<tr>
<td></td>
<td>ABUS F101 Principles of Accounting I</td>
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<tr>
<td></td>
<td>ABUS F151 Village-based Entrepreneurship</td>
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<tr>
<td></td>
<td>ABUS F158 Introduction to Tourism</td>
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</tr>
</tbody>
</table>

1 Students can specialize in one area of study or can choose from multiple areas of study. Course substitutions relevant to tribal management may be made with the approval of the tribal management faculty advisor.
Students can specialize in one area of study or can choose from multiple areas of study. Course substitutions relevant to tribal management may be made with the approval of the tribal management faculty advisor.

Yup’ik Language Proficiency Certificate; A.A.S. Degree

The Yup’ik language proficiency program is designed to provide students with the opportunity to pursue structured study of Yup’ik in order to develop intermediate-level speaking and listening skills, as well as basic reading and writing abilities in the language. The certificate may serve as a step on the way to a two-year or four-year degree.
Certificate, Yup'ik Language Proficiency

Program Requirements

Minimum Requirements for Yup'ik Language Proficiency Certificate: 30 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>General University Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (p. 106)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Certificate Requirements</strong></td>
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</tr>
<tr>
<td></td>
<td>Complete the certificate requirements. (p. 108)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Yup'ik Language Proficiency Program Requirements</strong></td>
<td></td>
</tr>
<tr>
<td>YUP F130</td>
<td>Beginning Yup'ik Grammar</td>
<td>3</td>
</tr>
<tr>
<td>YUP F208</td>
<td>Yup'ik Composition</td>
<td>3</td>
</tr>
<tr>
<td>YUP F240</td>
<td>Introduction to Reading and Writing Yup'ik</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Complete one from the following sequences:</td>
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</tr>
<tr>
<td>YUP F103 and YUP F104 and YUP F203 and YUP F204</td>
<td>Conversational Central Yup'ik I and Conversational Central Yup'ik II and Conversational Central Yup'ik III and Conversational Central Yup'ik IV</td>
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</tr>
<tr>
<td>YUP F121 and YUP F122 and YUP F123</td>
<td>Elementary Central Yup'ik Apprenticeship I and Elementary Central Yup'ik Apprenticeship II and Elementary Central Yup'ik Apprenticeship III</td>
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</tr>
<tr>
<td></td>
<td>Complete one from the following sequences:</td>
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</tr>
<tr>
<td>YUP F205 and YUP F206 and YUP F223</td>
<td>Regaining Fluency in Yup'ik and Regaining Fluency in Yup'ik II and Intermediate Central Yup'ik Apprenticeship III</td>
<td></td>
</tr>
<tr>
<td>YUP F221 and YUP F222 and YUP F223</td>
<td>Intermediate Central Yup'ik Apprenticeship I and Intermediate Central Yup'ik Apprenticeship II and Intermediate Central Yup'ik Apprenticeship III</td>
<td></td>
</tr>
</tbody>
</table>

1 As part of the certificate requirements, the communication, computation and human relations content is embedded in some of the major required courses for this program.
BACHELOR’S DEGREES

Bachelor’s Degree
To earn a UAF degree, you must satisfy the following sets of requirements: general university requirements, degree requirements and program (major) requirements. General university requirements and degree requirements are described in this section of the catalog; major requirements are found in the Bachelor’s Degree Programs section; for bachelor’s degree requirements in brief, see Summary of Bachelor’s Degree Requirements (p. 161) chart.

If your degree program is delivered collaboratively within the UA system, credits you earn from each UA institution will be counted toward fulfillment of degree requirements and the minimum institutional residency requirements. You must contact Admissions to bring any credit from another UA system in. Credits will not transfer automatically. Institutional residency requirements are the minimum number of credits you must earn from the campus where you earn a degree.

General University Requirements
For a UAF bachelor’s degree, you must earn at least 120 semester credits, including transfer credits, at the 100 level or above. Of these, 39 credits must be upper-division (300 level or above), of which 24 must be UA residence credits and 15 must be UAF credits.

At least 30 semester credits applicable to any bachelor’s degree must be earned at UAF. Transfer students need to earn at least 24 upper-division semester credits at UA, of which 15 must be UAF credits. Transfer students must earn at least 12 semester credits in the major and at least 3 semester credits in the minor. You must earn a C- grade or higher in all courses required for your degree, unless otherwise specified by your major (major, minor, general education requirements and degree requirements).

Unless otherwise specified, a course may be used more than once toward fulfilling degree, certificate, major and minor requirements. Credit hours for these courses count only once toward total credits required for the degree or certificate.

Since WRTG F211X, WRTG F212X, WRTG F213X and WRTG F214X are writing courses, any will satisfy the second half of the requirement in written communication for the bachelor’s degree. But you can’t enroll in WRTG F211X, WRTG F212X, WRTG F213X or WRTG F214X without first fulfilling the WRTG F111X requirement. (See Local Advanced Placement Credit — English (p. 34).)

General University Requirements for Baccalaureate Degrees

| Minimum number of credits | 120 credits |
| Credits earned at UAF (residence credit) | 30 credits |
| Upper-division credit (courses with numbers between F300 and F499) | 39 credits total (some degrees require more); 24 of the 39 must be earned at UA and 15 at UAF |
| Additional UAF credit that must be earned by transfer students | 12 credits in the major; 3 credits in the minor |
| Grade point average | 2.0 cumulative and 2.0 in both the major and minor |

MINORS
A minor is a component of a bachelor’s degree. The Bachelor of Arts degrees requires a minor. You must satisfactorily complete the requirements for a minor before a B.A. degree can be awarded. A minor is optional for Bachelor of Applied Arts and Sciences, Bachelor of Applied Management, Bachelor of Business Administration, Bachelor of Fine Arts, Bachelor of Music, Bachelor of Science, Bachelor of Security and Emergency Management and Bachelor of Sport and Recreational Business degrees.

A minor from UAF consists of a minimum of 15 credits, at least 3 of which have to be earned at UAF. Students must earn a cumulative GPA of at least 2.0 (C) in the minor and follow minor requirements from the same academic catalog used for their bachelor’s program. An Associate of Applied Science degree or certificate of at least 30 credits earned...
at any regionally accredited college or university may be used to meet requirements for a minor in B.A. degree programs.

Some minors require more than 15 credits and approval from the department. Refer to specific requirements listed in the Bachelor's Degree Program section. Students seeking minors can use DegreeWorks to review their options. Results in DegreeWorks will be more accurate after submitting a declaration of minor form to the Office of the Registrar by the beginning of the senior year.

SECOND BACHELOR’S DEGREE

UAF graduates who want to earn a second bachelor’s degree must complete at least 24 hours of credit beyond the first bachelor’s degree. Students must meet all general university requirements, degree requirements and major requirements for both degrees.

Students who earned a bachelor’s degree from another college or university must be accepted for admission as a transfer student. All general university requirements (including residency requirement), degree and major requirements must be met. Students who graduated from a regionally accredited college or university, however, will be considered to have completed the equivalent of the UAF baccalaureate general education requirements.

DOUBLE DEGREES

Students who want to earn more than one UAF bachelor’s degree must complete all general requirements as well as all major and minor requirements (if any) for all degrees. At least 24 semester credit hours beyond the total required for the first degree need to be earned before any additional degrees can be awarded. For two degrees completed at the same time, students may follow requirements from two different catalogs.

Differences Between Double Majors and Double Degrees

<table>
<thead>
<tr>
<th></th>
<th>Double Majors</th>
<th>Double Degrees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree(s) earned</td>
<td>One bachelor’s degree is earned. The Bachelor of Arts degree requires the completion of two majors rather than a major and a minor. Majors are selected from those approved for the B.A. degree. The Bachelor of Science degree requires the completion of a double major instead of a single major. Majors are selected from those approved for the B.S. degree.</td>
<td>More than one bachelor’s degree is earned. Can be the same degree (e.g., two BAs) or different degrees, (e.g., B.A. and B.S., B.B.A. and B.S., B.F.A. and B.A., etc.). Each degree is independent of the other. If requirements for one degree are not completed as scheduled, the other degree may be awarded if all requirements are met.</td>
</tr>
<tr>
<td>Graduation application</td>
<td>A single graduation application and fee is required.</td>
<td>A separate graduation application and fee is required for each degree.</td>
</tr>
</tbody>
</table>

Degree Policies

RESIDENCE CREDIT

Residence credit is course credit earned through any unit of UAF. Formal classroom instruction, correspondence study, distance-delivered courses, individual study or research at UAF are all considered residence credit. On the other hand, transfer credit, advanced placement credit, credit for prior learning, military service credit and credit granted through nationally prepared examinations are not considered resident credit, nor are credit-by-examination credits earned through locally prepared tests. None of these types of credit can be applied to UAF residency requirements. UAF residence credit takes precedence over any nonresident credits. For example, if a student has AP credit for a course, but takes the same courses at UAF, the AP credit will be excluded and the UAF course will be applied to the degree requirements.

RESIDENCY REQUIREMENT

Most universities have residency requirements that call for a certain number of credits toward a degree to be earned at the degree-granting school. At UAF, the residency requirement for bachelor’s degrees is 30 resident credits.

DEGREE REQUIREMENTS AND TIME LIMITS

You may complete degree requirements in effect and published in the UAF catalog in any one of the previous seven academic years in which you are enrolled as a degree student for a bachelor’s degree. You’re considered enrolled in your degree program when you complete the appropriate degree student registration procedure. If you do not enroll for a semester or more, or if you enroll through the nondegree student registration process, you aren’t considered enrolled as a degree student during that time.

EXCEPTIONS TO DEGREE REQUIREMENTS

Occasionally an undergraduate student may request an exception to an academic requirement or regulation. Requests for an academic dispensation must be approved by petition. If you submit a petition on the basis of a disability, the coordinator of Disability Services will be consulted. Petition forms are available at the Office of the Registrar or online at the registrar website. Forms need to be returned to the Office of the Registrar with required signatures of approval. The Office of the Registrar will notify note your petition in DegreeWorks once
the appropriate person or committee has made a decision. Academic petitions fall into three categories and each involves different processes:

• **General Education Requirements Petitions**
  If your petition deals with baccalaureate general education requirements or baccalaureate degree ethics or library science requirements, your advisor and the head of the department of the academic area involved must grant approval. Submit your signed petition to the Office of the Registrar. It will then be forwarded to the chair of the Faculty Senate CORE/General Education Requirements Curriculum Review Committee for consideration.

• **Major or Minor Degree Requirement Petitions**
  If you want to waive or substitute courses within your major or minor requirements, you need approval signatures from your advisor and the department or program head of your major or minor area. Submit your signed petition to the Office of the Registrar.

• **Petitions for Other Requirements**
  If your petition deals with general university and/or specific requirements for your degree or other academic policies, you need approval from your advisor and the dean or director of the college or school in which your major is located. Submit your signed petition to the Office of the Registrar. It will then be forwarded to the Provost for consideration.

**RESERVING COURSES FOR GRADUATE PROGRAMS**

Seniors who have only a few remaining requirements for a bachelor’s degree may take courses at the 400 or 600 graduate course level and have them reserved for an advanced degree. Courses reserved for use toward a graduate program cannot also be counted toward requirements for your bachelor’s degree. Unless otherwise notified in writing that the courses are to be used toward the undergraduate program, 600-level graduate courses will automatically be reserved for the advanced degree.

To reserve one or more courses, you must be in your final year of an undergraduate program. Submit a written request to the Office of the Registrar during the first four weeks of the semester. The request should identify which semester courses you want reserved for graduate study and not counted toward your bachelor’s degree. (Reserving courses does not, however, assure that a graduate advisory committee will accept them as part of your eventual graduate program.)

**Graduation**

• **Responsibility**
  You are responsible for meeting all requirements for graduation.
  You are encouraged to communicate regularly with your academic advisor and to use Degree Works throughout your college career to ensure you are on track to graduate.

• **Application for Graduation**
  You need to formally apply for graduation. An application for graduation and non-refundable fee must be filed with the Office of the Registrar. We encourage students to apply the semester prior to the semester you plan to graduate. If you file your application by the published deadline, the graduation application fee is $50. If you miss that deadline, you can submit a late application for graduation by the published late graduation deadline for that semester. The fee for a late application is $80. Applications for graduation filed after the late deadline are processed for graduation the following semester. Students who apply for graduation and who do not complete degree requirements by the end of the semester must reapply for graduation and repay the fee.

• **Diplomas and Commencement**
  UAF issues diplomas to graduates three times a year: in September, January, and June. Students who complete degree requirements for UA Board of Regents-approved academic programs during the academic year are invited to participate in the annual commencement ceremony at the end of spring semester. Names of students receiving degrees/certificates appear in the commencement program and are released to the media unless you submit a written request to the graduation department not to do so. (See Information Release and FERPA (p. 57).) Graduates are responsible for ordering caps and gowns through the UAF bookstore in early spring.

• **Graduation with Honors**
  Graduation with honors is a tribute that recognizes academic achievement. Honors graduates have earned a cumulative GPA of 3.5 or higher in all college work. If a student’s overall cumulative GPA is 3.5 or higher, a student graduates with the distinction of cum laude; 3.75 or higher, magna cum laude; 3.9 or higher and no grade lower than A-, summa cum laude. Your cumulative GPA for graduation with honors is based on all college work attempted at UAF, including any repeated or omitted credits due to Fresh Start.
  For transfer students to be considered for graduation with honors, they must have:
  • 3.5 cumulative GPA in all attempted UAF credits, and
  • UAF residence credits of 48 semester hours for a bachelor’s degree.

Once those requirements are met, a cumulative GPA is calculated combining all college work attempted at UAF, as well as all college work attempted at any other institutions you’ve attended, including repeated credits and any credits that may not have been accepted for transfer to UAF. The combined cumulative GPA must also be 3.5 or higher for a transfer student to graduate with honors.

**Types of Bachelor’s Degrees**

• **Bachelor of Applied Arts and Sciences**
  The B.A.A.S. interdisciplinary degree designed for students with technical or vocational backgrounds who want to enhance their experiences with more advanced academic pursuits.

• **Bachelor of Applied Management**
  The B.A.M. online degree is designed for individuals who have completed 21-30 credit hours in an area of specialization or trade and aspire to assume middle-management-level positions in their chosen field.

• **Bachelor of Arts**
  The B.A. degree emphasizes written and oral communication skills, creative thinking, critical analyses of texts, understanding cultures, and a working knowledge of social, political and historical contexts. The degree is typically pursued by students whose major areas of study are directed toward humanities, arts and social science disciplines.

• **Bachelor of Business Administration**
  The B.B.A. degree is the undergraduate equivalent of an MBA. Students explore a wide spectrum of business-related issues to develop advanced business, management and administration skills required in organizational settings at senior levels, and to accelerate high-level career development in the workplace.

• **Bachelor of Fine Arts**
  The B.F.A. degree has a rigorous curriculum designed to prepare talented students for professional careers in the arts.
• Bachelor of Music
  The B.M. degree encourages acquisition of skills and display of
talent in music, with special emphasis on aesthetic performance and
understanding.

• Bachelor of Security and Emergency Management
  The B.S.E.M. degree prepares students for professional careers
responding to natural and man-made disasters, forming crisis
management plans and ensuring public safety. Students with
backgrounds ranging from first responders and military to applied
vocational skills will graduate ready to start or advance in careers
in emergency management, homeland security, public safety and
emergency services.

• Bachelor of Science
  The B.S. degree emphasizes oral and written communication
skills and analytical skills for examining and solving problems.
The degree is typically pursued by students whose major areas of
study are directed toward natural sciences, mathematics, statistics,
engineering, computer science and some social science fields.

• Bachelor of Sport and Recreation Business
  The B.S.R.B. will provide academic preparation and sought-after,
critical education necessary for entry-level careers in the sport and
recreation industries.

Bachelor’s Degree Requirements
THE GENERAL EDUCATION REQUIREMENTS

For a summary of the general education requirements see the general
education requirements (p. 157) chart. Undergraduate bachelor’s study
at UAF is characterized by a common set of learning experiences known
as the General Education Requirements. General education objective and
learning outcomes for undergraduate students seeking baccalaureate
degrees at the University of Alaska Fairbanks:

1. Build knowledge of human institutions, sociocultural processes, and
the physical and natural world through the study of the natural and
social sciences, technologies, mathematics, humanities, histories,
languages and the arts.

2. Develop intellectual and practical skills across the curriculum,
including inquiry and analysis, critical and creative thinking, problem-
solving, written and oral communication, information literacy,
technological competence, and collaborative learning.

3. Acquire tools for effective civic engagement in local through global
contexts, including ethical reasoning, intercultural competence, and
knowledge of Alaska and Alaska issues.

4. Integrate and apply learning, including synthesis and advanced
accomplishment across general and specialized studies, adapting
them to new settings, questions and responsibilities, and forming a
foundation for lifelong learning.

If you completed your bachelor’s degree, Associate of Arts degree or
Associate of Science degree from a regionally accredited institution,
you will be considered to have completed the equivalent of the general
education requirements when you have been officially accepted to an
undergraduate degree program at UAF.

ALASKA NATIVE-THEMED REQUIREMENTS

The Alaska Native-themed requirement is a degree requirement for all
baccalaureate, associate of arts and associate of science degrees. The
requirement may be met by taking a designated Alaska Native-themed
course anywhere in the student’s course of study, including general
education requirements, major requirements, minor requirements and
electives. For a summary of the Alaska Native-themed courses see the
Alaska Native-themed Requirements (p. 174) chart.

Postbaccalaureate Certificate
Requirements

For information regarding Postbaccalaureate Certificate Requirements
visit the Postbaccalaureate Certificate page (p. 288).

General Education Requirements

General education objective and learning outcomes for undergraduate
students seeking baccalaureate degrees at the University of Alaska Fairbanks:

1. Build knowledge of human institutions, sociocultural processes, and
the physical and natural world through the study of the natural and
social sciences, technologies, mathematics, humanities, histories,
languages and the arts.
  • Competence will be demonstrated for the foundational
    information in each subject area, its context and significance, and
    the methods used in advancing each.

2. Develop intellectual and practical skills across the curriculum,
including inquiry and analysis, critical and creative thinking, problem
solving, written and oral communication, information literacy,
technological competence, and collaborative learning.
  • Proficiency will be demonstrated across the curriculum through
critical analysis of proffered information, well-reasoned solutions
to problems or inferences drawn from evidence, effective written
and oral communication, and satisfactory outcomes of group
projects.

3. Acquire tools for effective civic engagement in local through global
contexts, including ethical reasoning, intercultural competence, and
knowledge of Alaska and Alaska issues.
  • Facility will be demonstrated through analyses of issues
    including dimensions of ethics, human and cultural diversity,
    conflicts and interdependencies, globalization and sustainability.

4. Integrate and apply learning, including synthesis and advanced
accomplishment across general and specialized studies, adapting
them to new settings, questions and responsibilities, and forming a
foundation for lifelong learning.
  • Preparation will be demonstrated through the production of a
    creative or scholarly product that requires broad knowledge,
    appropriate technical proficiency, information collection,
synthesis, interpretation, presentation and reflection.

If you completed your bachelor’s degree, an associate of arts degree
or associate of science degree from a regionally accredited institution,
you will be considered to have completed the equivalent of the general
education requirements when you have been officially accepted to an
undergraduate degree program at UAF.

Courses that satisfy the GER have course numbers ending with
X. For example, WRTG F111X and COJO F141X meet specific GER
communication requirements. Courses used to satisfy general education
requirements can also be used to satisfy minor requirements. Natural
science and mathematics credits used to satisfy general education
requirements can also be used to satisfy major requirements. If
additional courses are added to GER in later catalog years, students may
General Education Requirements

use them to fulfill a specific GER in this catalog year. Students must earn a C- grade or higher in each course used to meet a baccalaureate GER.

General Education Requirements at a Glance

Minimum Requirements for General Education Requirements: 35-40 credits
Refer to tables below for specific courses.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Communication (p. 158)</td>
<td>9</td>
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<tr>
<td>Arts (p. 158)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Humanities (p. 158)</td>
<td></td>
<td>3-5</td>
</tr>
<tr>
<td>Social Sciences (p. 158)</td>
<td></td>
<td>6</td>
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<tr>
<td>Additional Arts/Humanities/Social Sciences (p. 158)</td>
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<td>Mathematics (p. 158)</td>
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<tr>
<td>Natural Sciences (p. 158)</td>
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<td>8</td>
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</table>

Course Requirements by Category

General Education Requirements Courses

MINIMUM REQUIREMENTS FOR GENERAL EDUCATION REQUIREMENTS: 35-40 CREDITS
Refer to tables below for specific courses.

COMMUNICATION - 9 CREDITS

Complete the following courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>COJO F121X</td>
<td>Introduction to Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>or COJO F131X</td>
<td>Fundamentals of Oral Communication: Group Context</td>
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<tr>
<td>or COJO F141X</td>
<td>Fundamentals of Oral Communication: Public Context</td>
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</tr>
<tr>
<td>WRTG F111X</td>
<td>Writing Across Contexts</td>
<td>3</td>
</tr>
<tr>
<td>WRTG F211X</td>
<td>Writing and the Humanities</td>
<td>3</td>
</tr>
<tr>
<td>or WRTG F212X</td>
<td>Writing and the Professions</td>
<td></td>
</tr>
<tr>
<td>or WRTG F213X</td>
<td>Writing and the Sciences</td>
<td></td>
</tr>
<tr>
<td>or WRTG F214X</td>
<td>Arguing Across Contexts</td>
<td></td>
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ARTS - 3 CREDITS

Complete one course from the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART F105X</td>
<td>Beginning Drawing</td>
<td>3</td>
</tr>
<tr>
<td>ANS/FLPA F161X</td>
<td>Introduction to Alaska Native Performance</td>
<td></td>
</tr>
<tr>
<td>ANS F202X</td>
<td>Aesthetic Appreciation of Alaska Native Performance</td>
<td></td>
</tr>
<tr>
<td>ANS/MUS/ACNS F223X</td>
<td>Alaska Native Music</td>
<td></td>
</tr>
<tr>
<td>ART F200X</td>
<td>Explorations in Art</td>
<td></td>
</tr>
<tr>
<td>ART F261X</td>
<td>History of World Art</td>
<td></td>
</tr>
<tr>
<td>ART F262X</td>
<td>History of World Art</td>
<td></td>
</tr>
<tr>
<td>ENGL/FLPA/COJO F217X</td>
<td>Introduction to the Study of Film</td>
<td></td>
</tr>
<tr>
<td>FLPA/COJO F105X</td>
<td>History of the Cinema</td>
<td></td>
</tr>
<tr>
<td>FLPA F121X</td>
<td>Fundamentals of Acting</td>
<td></td>
</tr>
<tr>
<td>FLPA F200X</td>
<td>Discovering Stage &amp; Screen</td>
<td></td>
</tr>
<tr>
<td>FLPA F215X</td>
<td>Dramatic Literature and History</td>
<td></td>
</tr>
<tr>
<td>HUM F201X</td>
<td>Unity in the Arts</td>
<td></td>
</tr>
<tr>
<td>MUS F103X</td>
<td>Music Fundamentals</td>
<td></td>
</tr>
<tr>
<td>MUS F125X</td>
<td>Enjoying Jazz</td>
<td></td>
</tr>
<tr>
<td>MUS F200X</td>
<td>Explorations in Music</td>
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</table>
| HUMANITIES - 3-5 CREDITS

Complete one from the following:

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<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ANL F251X</td>
<td>Introduction to Athabascan Linguistics</td>
<td></td>
</tr>
<tr>
<td>ANL F255X</td>
<td>Introduction to Alaska Native Languages</td>
<td></td>
</tr>
<tr>
<td>COJO F101X</td>
<td>Media and Culture</td>
<td></td>
</tr>
<tr>
<td>COJO F102X</td>
<td>Introduction to Broadcasting</td>
<td></td>
</tr>
<tr>
<td>ENGL F200X</td>
<td>World Literature</td>
<td></td>
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<tr>
<td>ENGL F201X</td>
<td>Texts and Contexts</td>
<td></td>
</tr>
<tr>
<td>ENGL F270X</td>
<td>Introduction to Creative Writing</td>
<td></td>
</tr>
<tr>
<td>LING F101X</td>
<td>Nature of Language</td>
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</tr>
<tr>
<td>LING F216X</td>
<td>Languages of the World</td>
<td></td>
</tr>
<tr>
<td>PHIL F102X</td>
<td>Introduction to Philosophy</td>
<td></td>
</tr>
<tr>
<td>PHIL F104X</td>
<td>Logic and Reasoning</td>
<td></td>
</tr>
<tr>
<td>RELG F221X</td>
<td>Religions of the World</td>
<td></td>
</tr>
<tr>
<td>or take one of the following languages:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANL F141X</td>
<td>Beginning Dene / Athabascan I</td>
<td></td>
</tr>
<tr>
<td>ANL F142X</td>
<td>Beginning Dene / Athabascan II</td>
<td></td>
</tr>
<tr>
<td>ASLG F101X</td>
<td>American Sign Language I</td>
<td></td>
</tr>
<tr>
<td>ASLG F202X</td>
<td>American Sign Language II</td>
<td></td>
</tr>
<tr>
<td>CHNS F101X</td>
<td>Elementary Chinese I</td>
<td></td>
</tr>
<tr>
<td>CHNS F102X</td>
<td>Elementary Chinese II</td>
<td></td>
</tr>
<tr>
<td>FREN F101X</td>
<td>Elementary French I</td>
<td></td>
</tr>
<tr>
<td>FREN F102X</td>
<td>Elementary French II</td>
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<tr>
<td>GER F101X</td>
<td>Elementary German I</td>
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<td>INU F111X</td>
<td>Elementary Inupiaq I</td>
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<td>INU F112X</td>
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<td>JPN F102X</td>
<td>Elementary Japanese II</td>
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<td>LAT F102X</td>
<td>Beginning Latin II</td>
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<td>RUSS F101X</td>
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<td>RUSS F102X</td>
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<td>Elementary Spanish I</td>
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<td>SPAN F102X</td>
<td>Elementary Spanish II</td>
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<tr>
<td>YUP F101X</td>
<td>Elementary Central Yup’ik I</td>
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<tr>
<td>YUP F102X</td>
<td>Elementary Central Yup’ik II</td>
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### SOCIAL SCIENCES - 6 CREDITS

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<tr>
<td>ACCT F261X</td>
<td>Principles of Financial Accounting</td>
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<tr>
<td>ANS F111X</td>
<td>History of Colonization in Alaska: The Indigenous Response</td>
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<tr>
<td>ANS F242X</td>
<td>Indigenous Cultures of Alaska</td>
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</tr>
<tr>
<td>ANTH F100X</td>
<td>Individual, Society and Culture</td>
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</tr>
<tr>
<td>ANTH F101X</td>
<td>Introduction to Anthropology</td>
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</tr>
<tr>
<td>ANTH F111X</td>
<td>Ancient Civilizations</td>
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<tr>
<td>ANTH F211X</td>
<td>Fundamentals of Archaeology</td>
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<tr>
<td>BA F151X</td>
<td>Introduction to Business</td>
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<tr>
<td>BA F254X</td>
<td>Personal Finance (s)</td>
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<tr>
<td>BA/SPRT F281X</td>
<td>Introduction to Sport Management</td>
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<tr>
<td>ECE F104X</td>
<td>Child Development I: Prenatal, Infants and Toddlers</td>
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<td>ECE F107X</td>
<td>Child Development II: The Preschool and Primary Years</td>
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<tr>
<td>ECE F210X</td>
<td>Child Guidance</td>
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<td>ECON F100X</td>
<td>Introduction to Economic Analysis</td>
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<tr>
<td>ECON F111X</td>
<td>The Economy of Rural Alaska</td>
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<td>ECON F201X</td>
<td>Principles of Economics I: Microeconomics</td>
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<td>ECON F202X</td>
<td>Principles of Economics II: Macroeconomics</td>
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<td>ECON F235X</td>
<td>Introduction to Natural Resource Economics</td>
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<td>GEOG F101X</td>
<td>Expedition Earth: Introduction to Geography</td>
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<tr>
<td>HIST F100X</td>
<td>Modern World History</td>
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<td>HIST F102X</td>
<td>Western Civilization Since 1500</td>
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<td>HIST F110X</td>
<td>History of Alaska Natives from Contact to the Present</td>
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<td>HIST F122X</td>
<td>East Asian Civilization</td>
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<td>HIST F132X</td>
<td>History of the U.S.</td>
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<tr>
<td>HUMS/JUST F125X</td>
<td>Introduction to Addictive Processes</td>
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<tr>
<td>JUST F110X</td>
<td>Introduction to Justice</td>
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<td>JUST F251X</td>
<td>Criminology</td>
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<tr>
<td>PS F100X</td>
<td>Political Economy</td>
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<tr>
<td>PS F102X</td>
<td>Introduction to American Government and Politics</td>
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<tr>
<td>PS F201X</td>
<td>Comparative Politics</td>
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<td>PS F221X</td>
<td>International Politics</td>
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<td>PSY F101X</td>
<td>Introduction to Psychology</td>
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<tr>
<td>RD F200X</td>
<td>Rural Development in the North</td>
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<td>SOC F101X</td>
<td>Introduction to Sociology</td>
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<td>Social Problems and Solutions</td>
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<td>SWK F103X</td>
<td>Introduction to Social Work</td>
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<tr>
<td>WGS F201X</td>
<td>Introduction to Women, Gender and Sexuality Studies</td>
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### ADDITIONAL ARTS / HUMANITIES / SOCIAL SCIENCES - 3-5 CREDITS

<table>
<thead>
<tr>
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<th>Title</th>
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<tbody>
<tr>
<td>ART F105X</td>
<td>Beginning Drawing</td>
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</tr>
<tr>
<td>ANS/FLPA F161X</td>
<td>Introduction to Alaska Native Performance</td>
<td></td>
</tr>
<tr>
<td>ANS F202X</td>
<td>Aesthetic Appreciation of Alaska Native Performance</td>
<td></td>
</tr>
<tr>
<td>ANS/MUS/ACNS F233X</td>
<td>Alaska Native Music</td>
<td></td>
</tr>
<tr>
<td>ART F200X</td>
<td>Explorations in Art</td>
<td></td>
</tr>
<tr>
<td>ART F261X</td>
<td>History of World Art</td>
<td></td>
</tr>
<tr>
<td>ART F262X</td>
<td>History of World Art</td>
<td></td>
</tr>
<tr>
<td>ENGL/FLPA/COJO F217X</td>
<td>Introduction to the Study of Film</td>
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<tr>
<td>FLP/COJO F105X</td>
<td>History of the Cinema</td>
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<tr>
<td>FLP/FLPA F212X</td>
<td>Fundamentals of Acting</td>
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</tr>
<tr>
<td>FLPA F200X</td>
<td>Discovering Stage &amp; Screen</td>
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</tr>
<tr>
<td>FLP/FLPA F215X</td>
<td>Dramatic Literature and History</td>
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<tr>
<td>HUM F201X</td>
<td>Unity in the Arts</td>
<td></td>
</tr>
<tr>
<td>MUS F103X</td>
<td>Music Fundamentals</td>
<td></td>
</tr>
<tr>
<td>MUS F125X</td>
<td>Enjoying Jazz</td>
<td></td>
</tr>
<tr>
<td>MUS F200X</td>
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### Arts - 3 Credits

<table>
<thead>
<tr>
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<th>Title</th>
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<tbody>
<tr>
<td>ART F105X</td>
<td>Beginning Drawing</td>
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<td>ANS F202X</td>
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<tr>
<td>ANS/MUS/ACNS F233X</td>
<td>Alaska Native Music</td>
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</tr>
<tr>
<td>ART F200X</td>
<td>Explorations in Art</td>
<td></td>
</tr>
<tr>
<td>ART F261X</td>
<td>History of World Art</td>
<td></td>
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<tr>
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<td></td>
</tr>
<tr>
<td>ENGL/FLPA/COJO F217X</td>
<td>Introduction to the Study of Film</td>
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</tr>
<tr>
<td>FLP/COJO F105X</td>
<td>History of the Cinema</td>
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</tr>
<tr>
<td>FLP/FLPA F212X</td>
<td>Fundamentals of Acting</td>
<td></td>
</tr>
<tr>
<td>FLPA F200X</td>
<td>Discovering Stage &amp; Screen</td>
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<td>FLP/FLPA F215X</td>
<td>Dramatic Literature and History</td>
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<td>HUM F201X</td>
<td>Unity in the Arts</td>
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<tr>
<td>MUS F103X</td>
<td>Music Fundamentals</td>
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</tr>
<tr>
<td>MUS F125X</td>
<td>Enjoying Jazz</td>
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<tr>
<td>MUS F200X</td>
<td>Explorations in Music</td>
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### Humanities - 3-5 Credits

<table>
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<tr>
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<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ANL F251X</td>
<td>Introduction to Athabascan Linguistics</td>
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</tr>
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<td>ANL F255X</td>
<td>Introduction to Alaska Native Languages</td>
<td></td>
</tr>
<tr>
<td>COJO F101X</td>
<td>Media and Culture</td>
<td></td>
</tr>
<tr>
<td>COJO F102X</td>
<td>Introduction to Broadcasting</td>
<td></td>
</tr>
<tr>
<td>ENGL/FL F200X</td>
<td>World Literature</td>
<td></td>
</tr>
<tr>
<td>ENGL F270X</td>
<td>Introduction to Creative Writing</td>
<td></td>
</tr>
<tr>
<td>LING F101X</td>
<td>Nature of Language</td>
<td></td>
</tr>
<tr>
<td>LING F216X</td>
<td>Languages of the World</td>
<td></td>
</tr>
<tr>
<td>PHIL F102X</td>
<td>Introduction to Philosophy</td>
<td></td>
</tr>
<tr>
<td>PHIL F104X</td>
<td>Logic and Reasoning</td>
<td></td>
</tr>
<tr>
<td>RELG F221X</td>
<td>Religions of the World</td>
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<tr>
<td>OR take one of the following languages:</td>
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<td></td>
</tr>
<tr>
<td>ANL F141X</td>
<td>Beginning Dene / Athabascan I</td>
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<tr>
<td>ANL F142X</td>
<td>Beginning Dene / Athabascan II</td>
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<tr>
<td>ASL F101X</td>
<td>American Sign Language I</td>
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<tr>
<td>ASL F202X</td>
<td>American Sign Language II</td>
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<tr>
<td>CHNS F101X</td>
<td>Elementary Chinese I</td>
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<tr>
<td>CHNS F102X</td>
<td>Elementary Chinese II</td>
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</tbody>
</table>
### General Education Requirements

- **FREN F101X** Elementary French I
- **FREN F102X** Elementary French II
- **GER F101X** Elementary German I
- **GER F102X** Elementary German II
- **INU F111X** Elementary Inupiaq I
- **INU F112X** Elementary Inupiaq II
- **JPN F101X** Elementary Japanese I
- **JPN F102X** Elementary Japanese II
- **LAT F101X** Beginning Latin I
- **LAT F102X** Beginning Latin II
- **RUSS F101X** Elementary Russian I
- **RUSS F102X** Elementary Russian II
- **SPAN F101X** Elementary Spanish I
- **SPAN F102X** Elementary Spanish II
- **YUP F101X** Elementary Central Yup’ik I
- **YUP F102X** Elementary Central Yup’ik II

### Social Sciences - 3 Credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT F261X</td>
<td>Principles of Financial Accounting</td>
<td></td>
</tr>
<tr>
<td>ANS F111X</td>
<td>History of Colonization in Alaska: The Indigenous Response</td>
<td></td>
</tr>
<tr>
<td>ANS F242X</td>
<td>Indigenous Cultures of Alaska</td>
<td></td>
</tr>
<tr>
<td>ANTH F100X</td>
<td>Individual, Society and Culture</td>
<td></td>
</tr>
<tr>
<td>ANTH F101X</td>
<td>Introduction to Anthropology</td>
<td></td>
</tr>
<tr>
<td>ANTH F111X</td>
<td>Ancient Civilizations</td>
<td></td>
</tr>
<tr>
<td>ANTH F211X</td>
<td>Fundamentals of Archaeology</td>
<td></td>
</tr>
<tr>
<td>BA F151X</td>
<td>Introduction to Business</td>
<td></td>
</tr>
<tr>
<td>BA F254X</td>
<td>Personal Finance (s)</td>
<td></td>
</tr>
<tr>
<td>BA/SPRT F281X</td>
<td>Introduction to Sport Management</td>
<td></td>
</tr>
<tr>
<td>ECE F104X</td>
<td>Child Development I: Prenatal, Infants and Toddlers</td>
<td></td>
</tr>
<tr>
<td>ECON F100X</td>
<td>Introduction to Economic Analysis</td>
<td></td>
</tr>
<tr>
<td>ECON F111X</td>
<td>The Economy of Rural Alaska</td>
<td></td>
</tr>
<tr>
<td>ECON F201X</td>
<td>Principles of Economics I: Microeconomics</td>
<td></td>
</tr>
<tr>
<td>ECON F202X</td>
<td>Principles of Economics II: Macroeconomics</td>
<td></td>
</tr>
<tr>
<td>ECON F235X</td>
<td>Introduction to Natural Resource Economics</td>
<td></td>
</tr>
<tr>
<td>GEOG F101X</td>
<td>Expedition Earth: Introduction to Geography</td>
<td></td>
</tr>
<tr>
<td>HIST F100X</td>
<td>Modern World History</td>
<td></td>
</tr>
<tr>
<td>HIST F102X</td>
<td>Western Civilization Since 1500</td>
<td></td>
</tr>
<tr>
<td>HIST F110X</td>
<td>History of Alaska Natives from Contact to the Present</td>
<td></td>
</tr>
<tr>
<td>HIST F122X</td>
<td>East Asian Civilization</td>
<td></td>
</tr>
<tr>
<td>HIST F132X</td>
<td>History of the U.S.</td>
<td></td>
</tr>
<tr>
<td>HUMS/JUST F125X</td>
<td>Introduction to Addictive Processes</td>
<td></td>
</tr>
<tr>
<td>JUST F110X</td>
<td>Introduction to Justice</td>
<td></td>
</tr>
<tr>
<td>JUST F251X</td>
<td>Criminology</td>
<td></td>
</tr>
<tr>
<td>PS F100X</td>
<td>Political Economy</td>
<td></td>
</tr>
<tr>
<td>PS F101X</td>
<td>Introduction to American Government and Politics</td>
<td></td>
</tr>
<tr>
<td>PS F201X</td>
<td>Comparative Politics</td>
<td></td>
</tr>
<tr>
<td>PS F221X</td>
<td>International Politics</td>
<td></td>
</tr>
<tr>
<td>PSY F101X</td>
<td>Introduction to Psychology</td>
<td></td>
</tr>
<tr>
<td>RD F200X</td>
<td>Rural Development in the North</td>
<td></td>
</tr>
<tr>
<td>SOC F101X</td>
<td>Introduction to Sociology</td>
<td></td>
</tr>
<tr>
<td>SOC F201X</td>
<td>Social Problems and Solutions</td>
<td></td>
</tr>
<tr>
<td>SWK F103X</td>
<td>Introduction to Social Work</td>
<td></td>
</tr>
<tr>
<td>WGS F201X</td>
<td>Introduction to Women, Gender and Sexuality Studies</td>
<td></td>
</tr>
</tbody>
</table>

### MATHEMATICS - 3-4 CREDITS

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH F113X</td>
<td>Numbers and Society</td>
<td></td>
</tr>
<tr>
<td>MATH F114X</td>
<td>Patterns and Society</td>
<td></td>
</tr>
<tr>
<td>MATH F122X</td>
<td>Essential Precalculus with Applications</td>
<td></td>
</tr>
<tr>
<td>MATH F151X</td>
<td>College Algebra for Calculus</td>
<td>1</td>
</tr>
<tr>
<td>MATH F152X</td>
<td>Trigonometry</td>
<td></td>
</tr>
<tr>
<td>MATH F156X</td>
<td>Precalculus</td>
<td></td>
</tr>
<tr>
<td>MATH F230X</td>
<td>Essential Calculus with Applications</td>
<td>2,3</td>
</tr>
<tr>
<td>MATH F251X</td>
<td>Calculus I</td>
<td>2,3</td>
</tr>
<tr>
<td>MATH F252X</td>
<td>Calculus II</td>
<td>3</td>
</tr>
<tr>
<td>MATH F253X</td>
<td>Calculus III</td>
<td>3</td>
</tr>
<tr>
<td>STAT F200X</td>
<td>Elementary Statistics</td>
<td></td>
</tr>
</tbody>
</table>

1. You may earn credit for MATH F151X or MATH F122X but not both.
2. You may earn credit for MATH F251X or MATH F230X but not both.
3. Or any math course having one of these as a prerequisite.

### NATURAL SCIENCES - 8 CREDITS

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATM F101X</td>
<td>Weather and Climate of Alaska</td>
<td></td>
</tr>
<tr>
<td>BIOL F100X</td>
<td>Human Biology</td>
<td></td>
</tr>
<tr>
<td>BIOL F103X</td>
<td>Biology and Society</td>
<td></td>
</tr>
<tr>
<td>BIOL F104X</td>
<td>Natural History of Alaska</td>
<td></td>
</tr>
<tr>
<td>BIOL F111X</td>
<td>Human Anatomy and Physiology I</td>
<td></td>
</tr>
<tr>
<td>BIOL F112X</td>
<td>Human Anatomy and Physiology II</td>
<td></td>
</tr>
<tr>
<td>BIOL F115X</td>
<td>Fundamentals of Biology I</td>
<td></td>
</tr>
<tr>
<td>BIOL F116X</td>
<td>Fundamentals of Biology II</td>
<td></td>
</tr>
<tr>
<td>BIOL F120X</td>
<td>Introduction to Human Nutrition</td>
<td></td>
</tr>
<tr>
<td>CHEM F100X</td>
<td>Chemistry in Complex Systems</td>
<td></td>
</tr>
<tr>
<td>CHEM F103X</td>
<td>Introduction to General Chemistry</td>
<td></td>
</tr>
<tr>
<td>CHEM F104X</td>
<td>Introduction to Organic Chemistry and Biochemistry</td>
<td></td>
</tr>
<tr>
<td>CHEM F105X</td>
<td>General Chemistry I</td>
<td></td>
</tr>
<tr>
<td>CHEM F106X</td>
<td>General Chemistry II</td>
<td></td>
</tr>
<tr>
<td>CHEM F111X</td>
<td>Introduction to Environmental Chemistry of the Arctic</td>
<td></td>
</tr>
</tbody>
</table>
GEOG F111X  Earth and Environment: Elements of Physical Geography
GEOS F101X  The Dynamic Earth
GEOS F106X  Life in the Age of Dinosaurs
GEOS F112X  The History of Earth and Life
GEOS F120X  Glaciers, Earthquakes and Volcanoes: Past, Present and Future
MSL F111X  The Oceans
PHYS F102X  Energy and Society

PHYS F115X  Physical Sciences
PHYS F123X  College Physics I
PHYS F124X  College Physics II
PHYS F165X  Introduction to Astronomy
PHYS F211X  General Physics I
PHYS F212X  General Physics II
PHYS F213X  Elementary Modern Physics

Summary of Bachelor’s Degree Requirements

General education requirements must be completed by all students. In addition to the general education requirements each degree program (e.g., B.A., B.B.A.) may have specific required courses.

See a list of all bachelor’s degree programs. (p. 176)

Bachelor of Applied Arts and Sciences

BACHELOR OF APPLIED ARTS AND SCIENCES

The B.A.A.S. degree program offers qualified applicants the opportunity to expand upon their vocational or technical education. An A.A.S. degree from an accredited institution of higher education, or equivalent, is one of the degree program requirements. See the Applied Arts and Sciences in the bachelor’s degree program section.

<table>
<thead>
<tr>
<th>Requirement Type</th>
<th>General Education Requirements</th>
<th>Degree Specific Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>Complete the following: COJO F121X, COJO F131X or COJO F141X; WRTG F111X; and WRTG F211X, WRTG F212X, WRTG F213X or WRTG F214X.</td>
<td></td>
</tr>
<tr>
<td>Library and Information Research</td>
<td>LS F101X or successful completion of library skills competency test</td>
<td></td>
</tr>
</tbody>
</table>
### Social Sciences

### Other
One additional Arts, Humanities or Social Sciences from the lists above.

### Ethics
Complete one from the following: BA F323X, COJO F300X, JUST F300X, NRM F303X, PHIL F322X, PS F300X. One 3-credit course at the F100 level or above from computer sciences or statistics, or math course from MATH F113X or above.

### Mathematics
Complete one from the following: MATH F113X, MATH F114X, MATH F122X, MATH F151X, MATH F152X, MATH F156X, MATH F230X, MATH F251X, MATH F252X, MATH F253X, or STAT F200X or any math course having one of these as a prerequisite. One 3-credit course at the F100 level or above from computer sciences or statistics, or math course from MATH F113X or above.

### Natural Sciences

### Alaska Native-themed
During the completion of coursework, 3 credits of Alaska Native-themed course(s) must be completed. See Alaska Native-themed requirements chart for available courses.¹

### Major Complex
Minimum of 30 credits of interdisciplinary studies and an Associate of Applied Science degree.

### Minor Complex
Minimum of 12 credits of discipline-specific coursework (excluding the major's requirements).

### Total Required
38-44 cr

### Bachelor of Applied Management
**BACHELOR OF APPLIED MANAGEMENT**

<table>
<thead>
<tr>
<th>Requirement Type</th>
<th>General Education Requirements</th>
<th>Degree Specific Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>Complete the following: COJO F121X, COJO F131X or COJO F141X; WRTG F111X, and WRTG F211X, WRTG F212X, WRTG F213X or WRTG F214X.</td>
<td>LS F101X or successful completion of library skills competency test</td>
</tr>
</tbody>
</table>

¹ For a summary of the Alaska Native-themed courses see the Alaska Native-themed requirements (p. 174) chart.

**Note:** You must earn a C- grade or higher in all courses required for your degree unless otherwise specified by your major (major, minor, general education requirements and degree requirements).
### Arts

### Humanities

### Social Sciences

### Other
One additional Arts, Humanities or Social Sciences from the lists above.

### Ethics
BA F323X

### Mathematics
MATH F122X

### Natural Sciences

### Alaska Native-themed
During the completion of coursework, 3 credits of Alaska Native-themed course(s) must be completed. See Alaska Native-themed courses chart for available courses.\(^1\)

### Major Complex
At least 33

### Minor Complex
Optional: at least 15 cr

### Total Required
120 cr

\(^1\) For a summary of the Alaska Native-themed courses see the Alaska Native-themed requirements (p. 174) chart.

### Notes:
• You must earn a C- grade or higher in all courses required for your degree unless otherwise specified by your major (major, minor, general education requirements and degree requirements).
• Courses beyond 30 credits in a major complex may be used to fulfill the B.A.M. degree requirements in ethics.

### Bachelor of Arts

#### BACHELOR OF ARTS

<table>
<thead>
<tr>
<th>Requirement Type</th>
<th>General Education Requirements</th>
<th>Degree Specific Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>Complete the following: COJO F121X, COJO F131X or COJO F141X, WRTG F111X, and WRTG F211X, WRTG F212X, WRTG F213X or WRTG F214X.</td>
<td></td>
</tr>
<tr>
<td>Library and Information Research</td>
<td>LS F101X or successful completion of library skills competency test</td>
<td></td>
</tr>
<tr>
<td>Ethics</td>
<td>Complete one from the following: BA F323X, COJO F300X, JUST F300X, NRM F303X, PHIL F322X, PS F300X</td>
<td></td>
</tr>
<tr>
<td>Mathematics</td>
<td>Complete one from the following: MATH F113X, MATH F114X, MATH F122X, MATH F151X, MATH F152X, MATH F156X, MATH F230X, MATH F251X, MATH F252X, MATH F253X or STAT F200X or any math course having one of these as a prerequisite</td>
<td></td>
</tr>
</tbody>
</table>
Natural Sciences


No additional natural science unless required by the major or minor

Other

One additional Arts, Humanities or Social Sciences from the lists above.

Alaska Native-themed

During the completion of coursework, 3 credits of Alaska Native-themed course(s) must be completed. See Alaska Native-themed courses chart for available courses.¹

Major Complex

At least 30 cr

Minor Complex

Required: at least 15 cr

Total Required

38-44 cr

120 cr

¹ For a summary of the Alaska Native-themed courses see the Alaska Native-themed requirements (p. 174) chart.

Notes:

You must earn a C- grade or higher in all courses required for your degree unless otherwise specified by your major (major, minor, general education requirements and degree requirements).

Department requirements for majors and minors may exceed the minimums indicated.

Of the above, at least 39 credits must be taken in upper-division (300-level or higher) courses. Courses beyond 30 credits in a major complex and 15 credits in a minor complex may be used to fulfill the B.A. degree requirements in ethics, humanities, mathematics or social sciences. Courses used to fulfill requirements for a minor may be used at the same time to fill major or general distribution requirements if so designated.

Students who hold a bachelors degree from a regionally accredited institution are not required to complete the minor complex.

- Minors
  Minors are offered in many subject areas. Requirements for minors are listed in the degree program sections. See a list of all bachelor’s degree programs, including minors, here (http://catalog.uaf.edu/programs/).
  An Associate of Applied Science (A.A.S.) degree or certificate of at least 30 credits earned at any regionally accredited college or university may be used to meet requirements for a minor for the Bachelor of Arts (B.A.) degree. Students who hold a bachelor’s degree from a regionally accredited institution are not required to complete the minor complex.

- Double majors
  If you’re a Bachelor of Arts degree candidate, you may complete two majors rather than a major and a minor. Your majors must be selected from those approved for the Bachelor of Arts degree. You’ll need to complete all general requirements plus all requirements for both majors. If you’re completing a double major, you need to officially declare both majors either when you’re admitted or through the change of major procedure. You’ll need to follow the degree requirements in a single catalog for both majors.

Bachelor of Business Administration

BACHELOR OF BUSINESS ADMINISTRATION

<table>
<thead>
<tr>
<th>Requirement Type</th>
<th>General Education Requirements</th>
<th>Degree Specific Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>Complete the following: COJO F121X, COJO F131X or COJO F141X; WRTG F111X; and WRTG F211X, WRTG F212X, WRTG F213X or WRTG F214X.</td>
<td></td>
</tr>
<tr>
<td>Library and Information Research</td>
<td></td>
<td>LS F101X or successful completion of library skills competency test</td>
</tr>
</tbody>
</table>
Arts

Humanities

Social Sciences

Other
Complete one additional Arts, Humanities or Social Sciences from the lists above. Complete the following: ACCT F261X; ACCT F262; AIS F101; AIS F324; AIS F342; BA F308; BA F309 or BA F310; BA F325; BA F330; BA F343; BA F360; BA F390 or BA F391; BA F462; ECON F201X; ECON F202X; ECON F227; HSEM F415, HSEM F416, HSEM F417 or HSEM F418; HSEM F445; and choose an additional ECON course at any level.

Ethics
BA F323X

Mathematics
MATH F122X

Natural Sciences

Alaska Native-themed
During the completion of coursework, 3 credits of Alaska Native-themed course(s) must be completed. See Alaska Native-themed courses chart for available courses.¹

Major Complex
At least 24-33 cr
<table>
<thead>
<tr>
<th>Minor Complex</th>
<th>Optional: at least 15 cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Required</td>
<td>38-44 cr</td>
</tr>
<tr>
<td></td>
<td>120 cr</td>
</tr>
</tbody>
</table>

1. For a summary of the Alaska Native-themed courses see the Alaska Native-themed requirements (p. 174) chart.

Notes:

All majors must earn a C- grade or higher in the general education, degree, department and major-specific, minor and specific math and statistics requirements.

Department requirements for majors and minors may exceed the minimums indicated.

Of the above, at least 39 credits must be taken in upper-division (300-level or higher) courses.

Courses beyond 30 credits in a major complex may be used to fulfill the B.B.A. degree requirements in ethics.

### Bachelor of Fine Arts

**BACHELOR OF FINE ARTS**

<table>
<thead>
<tr>
<th>Requirement Type</th>
<th>General Education Requirements</th>
<th>Degree Specific Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Communication</strong></td>
<td>Complete the following: COJO F121X, COJO F131X or COJO F141X, WRTG F111X, and WRTG F211X, WRTG F212X, WRTG F213X or WRTG F214X.</td>
<td></td>
</tr>
<tr>
<td><strong>Library and Information Research</strong></td>
<td></td>
<td>LS F101X or successful completion of library skills competency test</td>
</tr>
<tr>
<td><strong>Ethics</strong></td>
<td>Complete one from the following: BA F323X, COJO F300X, JUST F300X, NRM F303X, PHIL F322X, PS F300X</td>
<td></td>
</tr>
</tbody>
</table>
### Summary of Bachelor’s Degree Requirements

#### Mathematics
Complete one from the following: MATH F113X, MATH F114X, MATH F122X, MATH F151X, MATH F152X, MATH F156X, MATH F230X, MATH F251X, MATH F252X, MATH F253X, or STAT F200X or any math course having one of these as a prerequisite.

#### Natural Sciences

#### Other
One additional Arts, Humanities or Social Sciences from the lists above.

#### Alaska Native-themed
During the completion of coursework, 3 credits of Alaska Native-themed course(s) must be completed. See Alaska Native-themed courses chart for available courses.¹

<table>
<thead>
<tr>
<th>Requirement Type</th>
<th>General Education Requirements</th>
<th>Degree Specific Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Complex</td>
<td>At least 30 cr</td>
<td></td>
</tr>
<tr>
<td>Minor Complex</td>
<td>Optional: at least 15 cr</td>
<td></td>
</tr>
<tr>
<td>Total Required</td>
<td>38-44 cr</td>
<td>120 cr</td>
</tr>
</tbody>
</table>

¹ For a summary of the Alaska Native-themed courses see the Alaska Native-themed requirements (p. 174) chart.

### Notes:
You must earn a C- grade or higher in all courses required for your degree unless otherwise specified by your major (major, minor, general education requirements and degree requirements).

Department requirements for majors and minors may exceed the minimums indicated.

Of the above, at least 39 credits must be taken in upper-division (300-level or higher) courses. Courses beyond 30 credits in a major complex and 15 credits in a minor complex may be used to fulfill the B.A. degree requirements in ethics, humanities, mathematics or social sciences. Courses used to fulfill requirements for a minor may be used at the same time to fill major or general distribution requirements if so designated.

Students who hold a bachelor’s degree from a regionally accredited institution are not required to complete the minor complex.

- **Minors**
  Minors are offered in many subject areas. Requirements for minors are listed in the degree program sections. See a list of all bachelor’s degree programs, including minors, here (http://catalog.uaf.edu/programs/)

- **Double majors**
  If you’re a Bachelor of Arts degree candidate, you may complete two majors rather than a major and a minor. Your majors must be selected from those approved for the Bachelor of Arts degree. You’ll need to complete all general requirements plus all requirements for both majors. If you’re completing a double major, you need to officially declare both majors either when you’re admitted or through the change of major procedure. You’ll need to follow the degree requirements in a single catalog for both majors.

### Bachelor of Music

#### BACHELOR OF MUSIC

<table>
<thead>
<tr>
<th>Requirement Type</th>
<th>General Education Requirements</th>
<th>Degree Specific Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>Complete the following: COJO F121X, COJO F131X or COJO F141X, WRTG F111X, and WRTG F211X, WRTG F212X, WRTG F213X or WRTG F214X.</td>
<td></td>
</tr>
<tr>
<td>Library and Information Research</td>
<td>LS F101X or successful completion of library skills competency test</td>
<td></td>
</tr>
<tr>
<td>----------------------------------</td>
<td>---------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td><strong>Social Sciences</strong></td>
<td>Complete two courses from the following in two different disciplines: ACCT F261X, ANS F111X, ANS F242X, ANTH F100X, ANTH F101X, ANTH F111X, ANTH F211X, BA F151X, BA F254X, BA F281X/SPRT F281X, ECE F104X, ECE F107X, ECE F210X, ECON F100X, ECON F111X, ECON F201X, ECON F202X, ECON F235X, GEOG F101X, HIST F100X, HIST F102X, HIST F122X, HIST F132X, HUMS F125X/JUST F125X, JUST F110X, JUST F251X, PS F100X, PS F101X, PS F201X, PS F221X, PSY F101X, RD F200X, SWK F103X, SOC F101X, SOC F201X, WGS F201X</td>
<td>No additional humanities unless required by the major</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td>One additional Arts, Humanities or Social Sciences from the lists above.</td>
<td></td>
</tr>
<tr>
<td><strong>Ethics</strong></td>
<td>Complete one from the following: BA F323X, COJO F300X, JUST F300X, NRM F303X, PHIL F322X, PS F300X</td>
<td></td>
</tr>
<tr>
<td><strong>Mathematics</strong></td>
<td>Complete one from the following: MATH F113X, MATH F114X, MATH F122X, MATH F151X, MATH F152X, MATH F156X, MATH F230X, MATH F251X, MATH F252X, MATH F253X, or STAT F200X or any math course having one of these as a prerequisite</td>
<td></td>
</tr>
<tr>
<td><strong>Natural Sciences</strong></td>
<td>Complete two from the following: ATM F101X, BIOL F100X, BIOL F103X, BIOL F104X, BIOL F111X, BIOL F112X, BIOL F115X, BIOL F116X, BIOL F120X, CHEM F100X, CHEM F103X, CHEM F104X, CHEM F105X, CHEM F106X, CHEM F111X, GEOG F111X, GEOS F101X, GEOS F106X, GEOS F112X, GEOS F120X, MSL F111X, PHYS F102X, PHYS F115X, PHYS F123X, PHYS F124X, PHYS F165X, PHYS F211X, PHYS F212X, PHYS F213X</td>
<td>No additional natural science required</td>
</tr>
</tbody>
</table>
### Alaska Native-themed

During the completion of coursework, 3 credits of Alaska Native-themed course(s) must be completed. See Alaska Native-themed courses chart for available courses.¹

<table>
<thead>
<tr>
<th>Requirement Type</th>
<th>General Education Requirements</th>
<th>Degree Specific Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Complex</td>
<td>85 or more cr</td>
<td></td>
</tr>
<tr>
<td>Minor Complex</td>
<td>Optional: at least 15 cr</td>
<td></td>
</tr>
<tr>
<td>Total Required</td>
<td>38-44 cr</td>
<td>120 cr</td>
</tr>
</tbody>
</table>

¹ For a summary of the Alaska Native-themed courses see the Alaska Native-themed requirements (p. 174) chart.

### Notes:

You must earn a C- grade or higher in all courses required for your degree unless otherwise specified by your major (major, minor, general education requirements and degree requirements).

Department requirements for majors and minors may exceed the minimums indicated.

### Bachelor of Science

**BACHELOR OF SCIENCE**

<table>
<thead>
<tr>
<th>Requirement Type</th>
<th>General Education Requirements</th>
<th>Degree Specific Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>Complete the following: COJO F121X, COJO F131X or COJO F141X, WRTG F111X, and WRTG F211X, WRTG F212X, WRTG F213X or WRTG F214X.</td>
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</tr>
<tr>
<td>Library and Information Research</td>
<td>LS F101X or successful completion of library skills competency test</td>
<td></td>
</tr>
</tbody>
</table>
### Other

Other courses totaling 3-4 credits in addition to the courses above. At least one of these courses must be in Social Sciences or Cultural Studies.

### Ethics

Complete one of the following: BA F323X, COJO F300X, JUST F300X, NRM F303X, PHIL F322X, PS F300X.

### Mathematics

Complete one of the following: MATH F113X, MATH F114X, MATH F122X, MATH F151X, MATH F152X, MATH F230X, MATH F251X, MATH F252X, MATH F253X, or STAT F200X or any math course having one of these as a prerequisite.

### Natural Sciences


Complete one-year sequence in one natural science beyond the general education requirements—8 cr (Total natural science courses used to meet general education requirements and B.S. requirements must represent at least two different natural sciences.)

### Alaska Native-themed

During the completion of coursework, 3 credits of Alaska Native-themed course(s) must be completed. See Alaska Native-themed courses chart for available courses.

### Major Complex

At least 30 cr

### Minor Complex

Optional: at least 15 cr

### Total Required

38-44 cr

120 cr*

1 For a summary of the Alaska Native-themed courses see the Alaska Native-themed requirements (p. 174) chart.

### Notes:

You must earn a C- grade or higher in all courses required for your degree unless otherwise specified by your major (major, minor, general education requirements and degree requirements).

* Department requirements for majors and minors may exceed the minimums indicated, and most B.S. degree programs require 130 credits.

Of the above, at least 39 credits must be taken in upper-division (300-level or higher) courses. Courses beyond 30 credits in a major complex and 15 credits in a minor complex may be used to fulfill the B.S. degree requirements in ethics, mathematics or natural science. Courses used to fulfill requirements for a minor may be used at the same time to fill major or general distribution requirements if so designated.

- **Double Majors**
  
  As a Bachelor of Science degree candidate, you may complete a double major instead of a single major. Your majors must be selected from those approved for the Bachelor of Science degree. You'll need to complete all general requirements plus all requirements for both majors. If you're completing a double major, you need to officially declare both majors either when you're admitted or through the change of major procedure. You'll need to follow the degree requirements in a single catalog for both majors.

- **Optional Minor**

  You may elect to complete a minor with the B.S. degree under the following circumstances:

  a. You must declare your minor before the beginning of your final semester in the B.S. degree program. You need to complete a declaration of minor form and file it with the Office of the Registrar by the end of registration.

  b. Any minor approved for the B.A. degree may serve as a minor for the B.S. degree. All general and specific requirements for minors are the same as those listed for B.A. degree minors, including that courses used to meet minor requirements may not be used to meet major or general distribution requirements unless so designated. The catalog used for the minor must be the same as the catalog used for the major and general degree requirements.

  c. You must satisfactorily complete the requirements for the minor before your B.S. degree will be awarded. The minor will be listed on your transcript along with the B.S. degree.
# Bachelor of Security and Emergency Management

**BACHELOR OF SECURITY AND EMERGENCY MANAGEMENT**

<table>
<thead>
<tr>
<th>Requirement Type</th>
<th>General Education Requirements</th>
<th>Degree Specific Requirements</th>
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</thead>
<tbody>
<tr>
<td>Communication</td>
<td>Complete the following: COJO F121X, COJO F131X or COJO F141X, WRTG F111X, and WRTG F211X, WRTG F212X, WRTG F213X or WRTG F214X.</td>
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</tr>
<tr>
<td>Library and Information Research</td>
<td>LS F101X or successful completion of library skills competency test</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>One additional Arts, Humanities or Social Sciences from the lists above.</td>
<td></td>
</tr>
<tr>
<td>Ethics</td>
<td>Complete one from the following: BA F323X, COJO F300X, JUST F300X, NRM F303X, PHI F322X, PS F300X</td>
<td></td>
</tr>
<tr>
<td>Mathematics</td>
<td>Complete one from the following: MATH F113X, MATH F114X, MATH F122X, MATH F151X, MATH F152X, MATH F156X, MATH F230X, MATH F251X, MATH F252X, MATH F253X, or STAT F200X or any math course having one of these as a prerequisite</td>
<td></td>
</tr>
</tbody>
</table>
### Natural Sciences

No additional natural science required

### Alaska Native-themed
During the completion of coursework, 3 credits of Alaska Native-themed course(s) must be completed. See Alaska Native-themed courses chart for available courses.¹

### Major Complex
At least 78 cr

### Minor Complex
Optional: at least 15 cr

### Total Required
38-44 cr

120 cr

¹ For a summary of the Alaska Native-themed courses see the Alaska Native-themed requirements (p. 174) chart.

The B.S.E.M. degree prepares students for professional careers responding to natural and manmade disasters, forming crisis management plans and ensuring public safety. Students with backgrounds ranging from first responders and military to applied vocational skills graduate ready to start or advance in careers in emergency management, homeland security, public safety and emergency services. See Homeland Security and Emergency Management (p. 243) in Bachelor’s Degree Programs.

### Notes:

You must earn a C- grade or higher in all courses required for your degree unless otherwise specified by your major (major, minor, general education requirements and degree requirements).

Courses beyond 30 credits in a major complex may be used to fulfill the B.S.E.M. degree requirements in ethics.

---

### Bachelor of Sport and Recreation Business

#### BACHELOR OF SPORT AND RECREATION BUSINESS

<table>
<thead>
<tr>
<th>Requirement Type</th>
<th>General Education Requirements</th>
<th>Degree Specific Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>Complete the following: COJO F121X, COJO F131X or COJO F141X; WRTG F111X; and WRTG F211X, WRTG F212X, WRTG F213X or WRTG F214X.</td>
<td>LS F101X or successful completion of library skills competency test</td>
</tr>
<tr>
<td>Library and Information Research</td>
<td></td>
<td></td>
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</tbody>
</table>
Alaska Native-themed Requirements

Alaska Native-themed Requirements

The Alaska Native-themed (ANT) requirement is a degree requirement for all bachelor’s, associate of arts and associate of science degrees. Students may choose from a number of courses to meet the total 3-credit hour Alaska Native-themed degree requirement. These courses explore Alaska Native peoples and cultures through at least one of the following: values, language, art, knowledge, governance, subsistence, experience and ways of life. This requirement does not add to the total number of credits required for General Education Requirement (GER) or degree completion. Although the Alaska Native-themed course requirement is
separate from GERs, some ANT courses are also GERs. These courses are marked with an ‘X’ and can count toward both a GER and ANT.

The University of Alaska Fairbanks is proud to acknowledge the Alaska Native nations upon whose traditional lands its six campuses reside. In Fairbanks, the Troth Yeddha’ Campus is located on the traditional lands of the Ch’eno Xwut’ana (Dena) people of the lower Tanana River, and the branch campuses and extension offices are hosted on Indigenous lands throughout the state. UAF is federally designated as an Alaska Native Serving Institution, with over 20 percent of the student body being Alaska Native and/or American Indian.

To fulfill UAF’s mission and to honor the first peoples of Alaska, all incoming undergraduate students learn about Alaska Native peoples and their perspectives and worldviews through the Alaska Native-themed course requirement. This requirement was developed through the efforts of the statewide Alaska Native Studies Council and was supported by the UAF student government and the UAF Faculty Senate.

**ALASKA NATIVE-THEMED COURSES**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
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<tr>
<td>ANS F110/RD F110</td>
<td>Alaska Native Claims Settlement Act: Land Claims in the 21st Century</td>
<td>1</td>
</tr>
<tr>
<td>ANS/RD F113</td>
<td>Alaska Natives, Indigenous Peoples and International Laws</td>
<td>1</td>
</tr>
<tr>
<td>ANS/RD F114</td>
<td>Alaska Natives, Indigenous Peoples and North American Legal Systems</td>
<td>1</td>
</tr>
<tr>
<td>ANS/FLPA F161X</td>
<td>Introduction to Alaska Native Performance</td>
<td>3</td>
</tr>
<tr>
<td>ANS/ACNS/MUS F223X</td>
<td>Alaska Native Music</td>
<td>3</td>
</tr>
<tr>
<td>ANS/ART F268</td>
<td>Alaska Native Art Studio I</td>
<td>3</td>
</tr>
<tr>
<td>ANS/RD F315</td>
<td>Tribal People and Development</td>
<td>3</td>
</tr>
<tr>
<td>ANS/PS F325</td>
<td>Alaska Native and Comparative Tribal Self-Government</td>
<td>3</td>
</tr>
<tr>
<td>ANS/ENGL F349</td>
<td>Narrative Art of Alaska Native Peoples (in English translation)</td>
<td>3</td>
</tr>
<tr>
<td>ANS/FLPA F361</td>
<td>Advanced Alaska Native Performance</td>
<td>3</td>
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<tr>
<td>ANS/ART/ANTH F365</td>
<td>Alaska Native Art History</td>
<td>3</td>
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<tr>
<td>ANS/ART F368</td>
<td>Alaska Native Art Studio II</td>
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<tr>
<td>ANS/FLPA F381</td>
<td>Indigenous World in Film</td>
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<td>ANS/RD F401</td>
<td>Cultural Knowledge of Native Elders</td>
<td>3</td>
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<tr>
<td>ANS/ED F420</td>
<td>Alaska Native Education</td>
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<tr>
<td>ANS/PS F425</td>
<td>Federal Indian Law and Alaska Natives</td>
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<tr>
<td>ANS/ED F461</td>
<td>Native Ways of Knowing</td>
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<tr>
<td>ANS/ART F468</td>
<td>Alaska Native Art Studio III</td>
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<td>ART/ANS/ANTH F367</td>
<td>Inuit Artchron</td>
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<tr>
<td>ANS F101</td>
<td>Introduction to Alaska Native Studies</td>
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<tr>
<td>ANS F111X</td>
<td>History of Colonization in Alaska: The Indigenous Response</td>
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<td>ANS F150</td>
<td>Topics in Alaska Regional Cultural History</td>
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<td>ANS F160</td>
<td>Alaska Native Dance</td>
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<td>ANS F202X</td>
<td>Aesthetic Appreciation of Alaska Native Performance</td>
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<td>ANS F242X</td>
<td>Indigenous Cultures of Alaska</td>
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<td>ANS F250</td>
<td>Current Alaska Native Leadership Perspectives</td>
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<td>ANS F251</td>
<td>Practicum in Alaska Native Cultural Expression</td>
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<tr>
<td>ANS F300</td>
<td>Alaska Native Writers Workshop</td>
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<td>ANS F310</td>
<td>Alaska Native and Comparative Indigenous Land Settlements</td>
<td>3</td>
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<td>ANS F329</td>
<td>Indigenous Alaska Native Language and Culture Revitalization</td>
<td>3</td>
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<td>ANS F350</td>
<td>Cross-cultural Communication: Alaska Perspectives</td>
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<td>ANS F351</td>
<td>Advanced Practicum in Alaska Native Cultural Expression</td>
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<td>ANS F360</td>
<td>Advanced Alaska Native Dance</td>
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<td>ANS F375</td>
<td>Native American Religion and Philosophy</td>
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<td>ANS F458</td>
<td>The Politics of Indigenous Identity</td>
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<tr>
<td>ANS F467</td>
<td>Tribal Responses to Violence: Safety, Justice and Advocacy</td>
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<td>ANS F475</td>
<td>Alaska Native Social Change</td>
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<td>Beginning Athabascan Literacy</td>
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<td>ANL F121</td>
<td>Conversational Alaska Native Language I</td>
<td>1-3</td>
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<td>ANL F122</td>
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<td>ANL F141X</td>
<td>Beginning Dene / Athabascan I</td>
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<td>ANL F142X</td>
<td>Beginning Dene / Athabascan II</td>
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<td>ANL F150</td>
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<td>ANL F151</td>
<td>Interethnic Communications</td>
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<td>Practicum in Native Language Education</td>
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<td>Intermediate Dene / Athabascan I</td>
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<td>Intermediate Dene / Athabascan II</td>
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<tr>
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<td>ANL F255X</td>
<td>Introduction to Alaska Native Languages</td>
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<td>ANL F256</td>
<td>Introduction to Alaska Native Languages: History, Status and</td>
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<td>ANL F287</td>
<td>Teaching Methods for Alaska Native Languages</td>
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<td>ANL F288</td>
<td>Curriculum and Materials Development for Alaska Native Languages</td>
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<td>ANL F289</td>
<td>Practicum in Native Language Education II</td>
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<td>ANL F315</td>
<td>Alaska Native Languages: Eskimo-Aleut</td>
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<td>Alaska Native Languages: Indian Languages</td>
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<td>Native Cultures of Alaska</td>
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<td>ANTH F383</td>
<td>Athabascan Peoples of Alaska and Adjacent Canada</td>
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<td>BA F391</td>
<td>Alaska Native Corporations: A Historical and Contemporary Perspective</td>
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<td>EBOT F100</td>
<td>Introduction to Ethnobotany</td>
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<td>ECON F111X</td>
<td>The Economy of Rural Alaska</td>
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<td>HIST F110X</td>
<td>History of Alaska Natives from Contact to the Present</td>
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<td>INU F118</td>
<td>Inupiaq Orthography</td>
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<td>INU F211</td>
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<td>INU F218</td>
<td>Inupiaq Composition</td>
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<td>JUST F340</td>
<td>Rural Justice in Alaska</td>
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<td>RD F245</td>
<td>Fisheries and Marine Wildlife Development in Rural Alaska</td>
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<td>Rural Alaska Land Issues</td>
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<td>RD F265</td>
<td>Perspectives on Subsistence in Alaska</td>
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<td>RD F430</td>
<td>Indigenous Economic Development and Entrepreneurship</td>
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<td>RD F465</td>
<td>Community Healing and Wellness</td>
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<td>RD F470</td>
<td>The Alaska Native Claims Settlement Act: Pre-1971 to Present</td>
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<td>TM F101</td>
<td>Introduction to Tribal Government in Alaska</td>
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<td>TM F102</td>
<td>Essentials of Tribal Government</td>
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<td>TM F105</td>
<td>Introduction to Managing Tribal Governments</td>
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<td>TM F112</td>
<td>Federal Indian Law for Alaska Tribes</td>
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<td>TM F120</td>
<td>Introduction to Tribal Natural Resources Stewardship</td>
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<td>TM F171</td>
<td>Introduction to the Indian Reservation Roads Program</td>
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<td>Managing Tribal Governments II</td>
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<td>TM F271</td>
<td>Rural Transportation Planning</td>
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<td>YUP F101X</td>
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<td>YUP F109</td>
<td>Central Yup'ik Orthography</td>
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<td>Elementary Central Yup'ik Apprenticeship I</td>
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<td>Elementary Central Yup'ik Apprenticeship II</td>
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<td>Elementary Central Yup'ik Apprenticeship III</td>
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<tr>
<td>YUP F130</td>
<td>Beginning Yup'ik Grammar</td>
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<td>Beginning Yup'ik Grammar</td>
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<td>YUP F155</td>
<td>Conversational Siberian Yup'ik I</td>
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<td>Siberian Yup'ik Orthography</td>
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<td>Regaining Fluency in Yup'ik</td>
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<tr>
<td>YUP F208</td>
<td>Yup'ik Composition</td>
<td>3</td>
</tr>
<tr>
<td>YUP F221</td>
<td>Intermediate Central Yup'ik Apprenticeship I</td>
<td>3</td>
</tr>
<tr>
<td>YUP F222</td>
<td>Intermediate Central Yup'ik Apprenticeship II</td>
<td>3</td>
</tr>
<tr>
<td>YUP F223</td>
<td>Intermediate Central Yup'ik Apprenticeship III</td>
<td>3</td>
</tr>
<tr>
<td>YUP F230</td>
<td>Introduction to Interpreting and Translating I</td>
<td>3</td>
</tr>
<tr>
<td>YUP F231</td>
<td>Introduction to Interpreting and Translating II</td>
<td>3</td>
</tr>
<tr>
<td>YUP F240</td>
<td>Introduction to Reading and Writing Yup'ik</td>
<td>3</td>
</tr>
<tr>
<td>YUP F250</td>
<td>Yup'ik Literature for Children</td>
<td>3</td>
</tr>
<tr>
<td>YUP F251</td>
<td>Teaching Beginning Yup'ik Reading and Writing</td>
<td>3</td>
</tr>
<tr>
<td>YUP F260</td>
<td>Siberian Yup'ik I</td>
<td>3</td>
</tr>
<tr>
<td>YUP F261</td>
<td>Siberian Yup'ik II</td>
<td>3</td>
</tr>
<tr>
<td>YUP F301</td>
<td>Advanced Central Yup'ik</td>
<td>3</td>
</tr>
<tr>
<td>YUP F330</td>
<td>Yup'ik Literature/Yupiit Quliraitnek Igaryaraq</td>
<td>3</td>
</tr>
<tr>
<td>YUP F375</td>
<td>Yup'ik Philosophy/Umyuarteqsaraq</td>
<td>3</td>
</tr>
<tr>
<td>YUP F415</td>
<td>Additional Topics in Advanced Yup'ik</td>
<td>3</td>
</tr>
<tr>
<td>YUP F488</td>
<td>Documenting Yup'ik Traditions/Caliraq</td>
<td>3</td>
</tr>
</tbody>
</table>

**Bachelor's Degree Programs**
**Accounting**

**B.B.A. Degree**

The accounting department offers an extensive program for those interested in the fields of general accounting, auditing, managerial accounting, taxation and government accounting. The objectives of the program are to provide a strong business background through an understanding of accounting and to train students for employment in accounting work.

The UAF accounting program is accredited by the Association to Advance Collegiate Schools of Business. Of the 529 AACSB-accredited programs in the U.S., only 176 have dual accreditation in business and accounting. The UAF accounting program is the only accounting program in Alaska with the AACSB accreditation.

The accounting program prepares students for certification as Certified Public Accountants, Certified Management Accountants, Certified Financial Managers, Certified Internal Auditors and Certified Fraud Examiners. The UAF accounting program places nearly 100 percent of its graduates.

Minimum Requirements for Accounting Bachelor’s Degree: 120 credits

Learn more about the bachelor’s degree in accounting (https://uaf.edu/academics/programs/bachelors/accounting.php), including an overview of the program, career opportunities and more.

School of Management
Department of Accounting and Information Systems
907-474-7461
Accounting Program (http://www.uaf.edu/som/degrees/undergraduate/acct/)

**Programs**

**Degree**

- B.B.A., Accounting (p. 177)

**Minor**

- Minor, Accounting (p. 177)

**B.B.A., Accounting**

Program Requirements

Students must earn a C- grade or better in each course.

**Minimum Requirements for Accounting B.B.A. Degree: 120 credits**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT F330</td>
<td>Income Tax</td>
<td>3</td>
</tr>
<tr>
<td>ACCT F342</td>
<td>Managerial Cost Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACCT F361</td>
<td>Intermediate Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ACCT F362</td>
<td>Intermediate Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>ACCT F452</td>
<td>Auditing</td>
<td>3</td>
</tr>
<tr>
<td>or ACCT F472</td>
<td>Internal and Government Auditing</td>
<td></td>
</tr>
<tr>
<td>AIS F316</td>
<td>Accounting Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>Complete four from the following:</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>ACCT F401</td>
<td>Advanced Accounting</td>
<td></td>
</tr>
<tr>
<td>ACCT F404</td>
<td>Advanced Cost Accounting and Controllership</td>
<td></td>
</tr>
<tr>
<td>ACCT F414</td>
<td>Governmental and Nonprofit Accounting</td>
<td></td>
</tr>
<tr>
<td>ACCT F430</td>
<td>Advanced Taxes</td>
<td></td>
</tr>
<tr>
<td>ACCT F472</td>
<td>Internal and Government Auditing</td>
<td></td>
</tr>
<tr>
<td>BA F454</td>
<td>Student Investment Fund</td>
<td></td>
</tr>
<tr>
<td>or BA F421</td>
<td>Business Analytics</td>
<td></td>
</tr>
</tbody>
</table>

**Electives**

Electives may be taken as needed to meet 120 credits

1 As part of the B.B.A. degree requirements (p. 165), BA F462 fulfills the baccalaureate capstone requirement.

**Note:** The B.B.A. degree requires 50 percent of the accounting, business administration and economics credits to be earned at UAF. Twenty-four out of the last 30 credits earned must be taken at UAF.

**Minor, Accounting**

Program Requirements

Students must earn a C- grade or better in each course.

**Minimum Requirements for Accounting Minor: 15 credits**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT F261X</td>
<td>Principles of Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACCT F262</td>
<td>Principles of Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>Upper-division accounting electives</td>
<td>9</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Courses completed to satisfy this minor can be used to simultaneously satisfy other major or general education requirements.

**Accounting, Applied**

**Minor**

The minor in applied accounting is designed to provide you the opportunity to acquire foundation-level knowledge and skills in payables and/or receivables, bookkeeping and payroll accounting. Courses include accounting principles, payroll accounting and accounting software systems.

This minor is a great choice for Bachelor of Arts degree students who need to satisfy their minor requirement or Associate of Arts students who want to explore accounting as an area of interest.
Minimum Requirements for Applied Accounting Minor: 18 credits

Community and Technical College
Applied Accounting (https://www.ctc.uaf.edu/programs/accounting-applied/)
907-455-2800

Programs
Minor
• Minor, Accounting, Applied (p. 178)

Degree
• A.A.S., Accounting, Applied (p. 114)

Minor, Accounting, Applied
Students must earn a C- grade or better in each course.

Minimum Requirements for Applied Accounting Minor: 18 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABUS F101</td>
<td>Principles of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ABUS F201</td>
<td>Principles of Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>or ABUS F235</td>
<td>Fund Accounting for Nonprofits</td>
<td></td>
</tr>
<tr>
<td>ABUS F210</td>
<td>Income Tax</td>
<td>3</td>
</tr>
<tr>
<td>ABUS F220</td>
<td>Microcomputer Accounting: QuickBooks</td>
<td>3</td>
</tr>
<tr>
<td>BA F151X</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>CIOS F135</td>
<td>Microcomputer Spreadsheets</td>
<td>3</td>
</tr>
<tr>
<td>or CIOS F240</td>
<td>Microcomputer Databases</td>
<td></td>
</tr>
</tbody>
</table>

Aerospace Engineering
Minor Only

UAF offers an aerospace engineering minor for students interested in a career in the aerospace industry or in expanding their knowledge of applied interdisciplinary engineering. The minor includes capstone courses in aeronautics and astronautics, with tracks emphasizing either aerodynamics or space systems. Several electives allow the program to be tailored for students’ desires and schedule.

Additional Courses. Several options are available for students looking for a more focused exposure to aerospace topics. In addition to taking any of the academic courses listed in the minor, UAF currently offers the following courses in unmanned aircraft systems.

• EE F656 – Aerospace Systems Engineering (fall odd-numbered years)
• EE F654 – UAS Systems Design (fall even-numbered years)
• EE F658 - Unmanned Aircraft Systems (UAS) Operations (spring)

These courses are offered at the Fairbanks campus and are available to UAA students via video link. Courses are open to all graduate and senior students in electrical, mechanical and computer engineering, as well as computer science and geomatics. Others may petition the instructor for participation.

A flowchart (https://sites.google.com/a/alaska.edu/dr-michael-hatfield/uaf-aerospace-engineering-minor/) is available for the required courses for the minor.

Aerospace Club — UAF hosts a local student chapter of the American Institute of Aeronautics and Astronautics. The club participates in AIAA’s annual Design Build Fly competition, with the flight demonstration occurring in April and rotating between Wichita, Kansas, and Tucson, Arizona. UAF’s team has done very well in this international competition, being within the top 100 schools to be invited for each of the past four years and placing 23rd in the 2019 competition. For more information visit UAF’s Aerospace Club’s website (http://uafaiaa.weebly.com/).

Minimum Requirements for Aerospace Engineering Minor: 15 credits

College of Engineering and Mines (http://www.uaf.edu/cem/)
907-474-6098

Programs
Minor
• Minor, Aerospace Engineering (p. 178)

Minor, Aerospace Engineering
Program Requirements
Students must earn a C- grade or better in each course.

Minimum Requirements for Aerospace Engineering Minor: 15 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ME F451</td>
<td>Aerodynamics</td>
<td>3</td>
</tr>
<tr>
<td>ME F452</td>
<td>Introduction to Astrodynamics</td>
<td>3</td>
</tr>
<tr>
<td>Complete three from the following:</td>
<td>9-11</td>
<td></td>
</tr>
<tr>
<td>EE F444</td>
<td>Embedded Systems Design</td>
<td></td>
</tr>
<tr>
<td>EE F471</td>
<td>Automatic Control</td>
<td></td>
</tr>
<tr>
<td>or ME F409</td>
<td>Controls</td>
<td></td>
</tr>
<tr>
<td>EE F654</td>
<td>UAS Systems Design</td>
<td></td>
</tr>
<tr>
<td>EE F656</td>
<td>Aerospace Systems Engineering</td>
<td></td>
</tr>
<tr>
<td>GEOS F422</td>
<td>Geoscience Applications of Remote Sensing</td>
<td></td>
</tr>
<tr>
<td>ME F408</td>
<td>Mechanical Vibrations</td>
<td></td>
</tr>
<tr>
<td>ME F450</td>
<td>Theory of Flight</td>
<td></td>
</tr>
<tr>
<td>ME F453</td>
<td>Propulsion Systems</td>
<td></td>
</tr>
</tbody>
</table>

Note: This minor may require substantial prerequisite courses for non-ME and non-EE majors, which should be taken into consideration.

Alaska Native Languages
Minor Only

The Alaska Native languages program offers courses in Eskimo, Aleut and Indian languages spoken in the state. Major and minor curricula are offered in Central Yup’ik Eskimo, the largest Alaska Native language in terms of number of speakers; and Inupiaq Eskimo, the second largest. Regular courses are also available in Gwich’in Athabascan. Individual or small-group instruction is available in other Athabascan languages as well as in Siberian Yup’ik, Alutiiq, Aleut and Tlingit. UAF is the only
university in the United States to provide such programs. Students interested in individual or small group interaction should contact the Alaska Native Language Center.

Professional opportunities for those skilled in Alaska Native languages exist in teaching, research and cultural, educational and political development. The A.A.S. degree and the 30-credit certificate in Native language education for either Inupiaq or Athabascan are available by distance delivery. Both provide training in language and culture for people interested in becoming Native language instructors, and both may serve as a step toward further education.

The Alaska Native language teaching program benefits from the research staff and library at the Alaska Native Language Center. Students have access to researchers who are world leaders in documenting Eskimo and northern Athabascan languages. The library houses more than 15,000 items, virtually everything written about Alaska Native languages, including copies of documentation dating to the 1700s.

Minimum Requirements for Alaska Native Languages Minor: 15 credits

Programs

Minor

- Minor, Alaska Native Languages (p. 179)

Minor, Alaska Native Languages

Program Requirements

Minimum Requirements for Alaska Native Languages Minor: 15 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Complete the following:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Any ANL, INU or YUP courses</td>
<td>15</td>
</tr>
</tbody>
</table>

Alaska Native Studies

B.A. Degree

Alaska Native studies is a social science program that explores current and historical Alaska and broader circumpolar issues from the indigenous perspective. The curriculum grounds students in tribal histories and cultures, governmental policies and local Indigenous affairs. The program incorporates Native traditional knowledge, wisdom and experience into contemporary issues and studies. Graduates are prepared to make leadership contributions throughout communities of the circumpolar North. They may also continue to higher education in fields such as law, policymaking and Indigenous studies.

Students complete a concentration in one of three areas:

- Indigenous Peoples in Law, Governance and Politics
- Alaska Native Knowledge, Cultural Resources and Expression
- Alaska Native Peoples: Health, Wellness and Environment

Graduates may find employment in many different areas including government, health and social services, performance arts, justice and cultural programs. They may also serve as cultural ambassadors to promote cross-cultural communications across the North. The B.A. degree can be earned on the Fairbanks campus or through distance delivery. The department welcomes students pursuing a second major or a minor.

Students applying for acceptance into the Alaska Native studies program need to complete a department-specific written questionnaire in addition to general university admission requirements. Findings from this process will be used to support the department advising process and assist students in connecting with faculty and mentors. The questionnaire is found on the DANSRD website under "How to Apply."

Special application requirements and deadlines apply for distance B.A. programs.

Minimum Requirements for Alaska Native Studies Bachelor's Degree: 120 credits

Learn more about the bachelor's degree in Alaska Native studies (https://uaf.edu/academics/programs/bachelors/alaska-native-studies.php), including an overview of the program, career opportunities and more.

Programs

Degree

- B.A., Alaska Native Studies (p. 179)

Minor

- Minor, Alaska Native Studies (p. 181)

B.A., Alaska Native Studies

Program Requirements

Students must earn a C- grade or better in each course.

Minimum Requirements for Alaska Native Studies B.A.: 120 credits

CONCENTRATIONS: INDIGENOUS PEOPLES IN LAW, GOVERNANCE AND POLITICS (P. 180); ALASKA NATIVE KNOWLEDGE, CULTURAL RESOURCES AND EXPRESSION (P. 180); ALASKA NATIVE PEOPLES: HEALTH, WELLNESS AND ENVIRONMENT (P. 181)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General University Requirements</td>
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</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (p. 154)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>General Education Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general education requirements. (p. 157)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>B.A. Degree Requirements</td>
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</tr>
<tr>
<td></td>
<td>Complete the B.A. degree requirements. (p. 164)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Upper-division Credits 1</td>
<td>39</td>
</tr>
<tr>
<td></td>
<td>Alaska Native Studies Program Requirements</td>
<td></td>
</tr>
<tr>
<td>ANS F101</td>
<td>Introduction to Alaska Native Studies</td>
<td>3</td>
</tr>
</tbody>
</table>
**Concentrations**

These are recommended courses. Course substitutions up to 9 credits may be made with approval of the faculty advisor.

### INDIGENOUS PEOPLES IN LAW, GOVERNANCE AND POLITICS

Prepares students to participate and represent their communities in the tribal, local, state and national arenas. For students interested in public service and/or legal careers.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANS F242X</td>
<td>Indigenous Cultures of Alaska</td>
<td>3</td>
</tr>
<tr>
<td>ANS F300</td>
<td>Alaska Native Writers Workshop</td>
<td>3</td>
</tr>
<tr>
<td>ANS F310</td>
<td>Alaska Native and Comparative Indigenous Land Settlements</td>
<td>3</td>
</tr>
<tr>
<td>RD F340</td>
<td>Community Research Toolbox</td>
<td>3</td>
</tr>
<tr>
<td>ANS F350</td>
<td>Cross-cultural Communication: Alaska Perspectives</td>
<td>3</td>
</tr>
<tr>
<td>ANS F401</td>
<td>Cultural Knowledge of Native Elders</td>
<td>3</td>
</tr>
<tr>
<td>RD F474</td>
<td>Applied Community Research</td>
<td>3</td>
</tr>
<tr>
<td>ANS F478</td>
<td>Alaska Native Studies Senior Thesis</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete 9 ANS/RD/TM/ANL elective credits

Complete 18 credits from one of the following concentrations

### Alaska Native Knowledge, Cultural Resources and Expression

1. Non-Fairbanks campus students choosing a minor other than rural development must verify that the required courses can be accessed via distance before declaring that minor. Courses used in the concentration area may be double-counted for the minor.

2. May not be counted toward an Alaska Native studies major if used to fulfill general education requirements.

3. Fulfills the baccalaureate capstone requirement. Students may substitute RD F475 with department chair approval.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ANS F112/ RD F110</td>
<td>Alaska Native Claims Settlement Act: Land Claims in the 21st Century</td>
<td>1</td>
</tr>
<tr>
<td>ANS F111X</td>
<td>History of Colonization in Alaska: The Indigenous Response</td>
<td>3</td>
</tr>
<tr>
<td>ANS/ RD F315</td>
<td>Tribal People and Development</td>
<td>3</td>
</tr>
<tr>
<td>ANS/PS F325</td>
<td>Alaska Native and Comparative Tribal Self-Government</td>
<td>3</td>
</tr>
<tr>
<td>ANS/PS F425</td>
<td>Federal Indian Law and Alaska Natives</td>
<td>3</td>
</tr>
<tr>
<td>ANS/PS F450</td>
<td>Comparative Indigenous Rights and Policies</td>
<td>3</td>
</tr>
<tr>
<td>ANS F458</td>
<td>The Politics of Indigenous Identity</td>
<td>3</td>
</tr>
<tr>
<td>ANS F467</td>
<td>Tribal Responses to Violence: Safety, Justice and Advocacy</td>
<td>3</td>
</tr>
<tr>
<td>ANS F475</td>
<td>Alaska Native Social Change</td>
<td>3</td>
</tr>
<tr>
<td>PLS F280</td>
<td>Legal Research and Writing for Paralegals</td>
<td>3</td>
</tr>
<tr>
<td>RD F265</td>
<td>Perspectives on Subsistence in Alaska</td>
<td>3</td>
</tr>
<tr>
<td>RD F470</td>
<td>The Alaska Native Claims Settlement Act: Pre-1971 to Present</td>
<td>3</td>
</tr>
<tr>
<td>RD F492</td>
<td>Rural Development Seminar</td>
<td>1-3</td>
</tr>
<tr>
<td>TM F201</td>
<td>Tribal Government in Alaska</td>
<td>3</td>
</tr>
</tbody>
</table>

1. May not be counted toward an Alaska Native studies major if used to fulfill general education requirements.

2. Students need to take the Legislative Seminar offering of RD F492, not the Cultural Resources Seminar, to count toward this concentration.

### ALASKA NATIVE KNOWLEDGE, CULTURAL RESOURCES AND EXPRESSION

Prepares students for careers involving literature, cultural preservation, cultural resource management, and the performing arts.

Complete the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANS F112/ RD F110</td>
<td>Alaska Native Claims Settlement Act: Land Claims in the 21st Century</td>
<td>1</td>
</tr>
<tr>
<td>ANS F111X</td>
<td>History of Colonization in Alaska: The Indigenous Response</td>
<td>3</td>
</tr>
<tr>
<td>ANS F160</td>
<td>Alaska Native Dance (Fairbanks only)</td>
<td>1</td>
</tr>
<tr>
<td>ANS F202X</td>
<td>Aesthetic Appreciation of Alaska Native Performance</td>
<td>3</td>
</tr>
<tr>
<td>ANS F223X</td>
<td>Alaska Native Music (Fairbanks only)</td>
<td>3</td>
</tr>
<tr>
<td>ANS F251</td>
<td>Practicum in Alaska Native Cultural Expression (Fairbanks only)</td>
<td>1-3</td>
</tr>
<tr>
<td>ANS F268</td>
<td>Alaska Native Art Studio I (Fairbanks only)</td>
<td>3</td>
</tr>
<tr>
<td>ANS/RD F315</td>
<td>Tribal People and Development</td>
<td>3</td>
</tr>
<tr>
<td>ANS F348</td>
<td>Native North American Women</td>
<td>3</td>
</tr>
<tr>
<td>ANS F349</td>
<td>Narrative Art of Alaska Native Peoples (in English translation)</td>
<td>3</td>
</tr>
<tr>
<td>ANS F351</td>
<td>Advanced Practicum in Alaska Native Cultural Expression (Fairbanks only)</td>
<td>1-3</td>
</tr>
<tr>
<td>ANS F458</td>
<td>The Politics of Indigenous Identity</td>
<td>3</td>
</tr>
<tr>
<td>ANS F360</td>
<td>Advanced Alaska Native Dance (Fairbanks only)</td>
<td>1</td>
</tr>
<tr>
<td>ANS F368</td>
<td>Alaska Native Art Studio II (Fairbanks only)</td>
<td>3</td>
</tr>
<tr>
<td>ANS F375</td>
<td>Native American Religion and Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>ANS F381</td>
<td>Indigenous World in Film</td>
<td>3</td>
</tr>
<tr>
<td>ANS F468</td>
<td>Alaska Native Art Studio III (Fairbanks only)</td>
<td>3</td>
</tr>
<tr>
<td>ANS F475</td>
<td>Alaska Native Social Change</td>
<td>3</td>
</tr>
<tr>
<td>RD F425</td>
<td>Cultural Resource Issues</td>
<td>3</td>
</tr>
<tr>
<td>RD F492</td>
<td>Rural Development Seminar</td>
<td>1-3</td>
</tr>
</tbody>
</table>

1. May not be counted toward an Alaska Native studies major if used to fulfill general education requirements.

2. Students need to take the Cultural Resources Seminar offering of RD F492, not the Legislative Seminar, to count toward this concentration.
ALASKA NATIVE PEOPLES: HEALTH, WELLNESS AND ENVIRONMENT

Prepares students to utilize traditional knowledge to promote healthy environments and communities. Useful to students on career tracks in health, environmental stewardship and wellness programs.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANS F112/RD F110</td>
<td>Alaska Native Claims Settlement Act: Land Claims in the 21st Century</td>
<td>1</td>
</tr>
<tr>
<td>ANS F111X</td>
<td>History of Colonization in Alaska: The Indigenous Response 1</td>
<td>3</td>
</tr>
<tr>
<td>ANS/RD F315</td>
<td>Tribal People and Development</td>
<td>3</td>
</tr>
<tr>
<td>ANS F348</td>
<td>Native North American Women</td>
<td>3</td>
</tr>
<tr>
<td>ANS F375</td>
<td>Native American Religion and Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>ANS F467</td>
<td>Tribal Responses to Violence: Safety, Justice and Advocacy</td>
<td>3</td>
</tr>
<tr>
<td>ANS F475</td>
<td>Alaska Native Social Change</td>
<td>3</td>
</tr>
<tr>
<td>EBOT F100</td>
<td>Introduction to Ethnobotany (KUC only)</td>
<td>3</td>
</tr>
<tr>
<td>EBOT F200</td>
<td>Seminar in Ethnobotany</td>
<td>1</td>
</tr>
<tr>
<td>EBOT F210</td>
<td>Ethical Wildcrafting</td>
<td>1</td>
</tr>
<tr>
<td>EBOT F220</td>
<td>Ethnobotanical Techniques</td>
<td>2</td>
</tr>
<tr>
<td>EBOT F230</td>
<td>Ethnobotanical Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>HUMS F260</td>
<td>History of Alchohol in Alaska (Fairbanks only)</td>
<td>1</td>
</tr>
<tr>
<td>HUMS F264</td>
<td>Culture, Chemical Dependency and Alaskan Natives (Fairbanks only)</td>
<td>1</td>
</tr>
<tr>
<td>RD F265</td>
<td>Perspectives on Subsistence in Alaska</td>
<td>3</td>
</tr>
<tr>
<td>RD F462</td>
<td>Rural Health and Human Service Systems</td>
<td>3</td>
</tr>
<tr>
<td>RD F465</td>
<td>Community Healing and Wellness</td>
<td>3</td>
</tr>
<tr>
<td>TM F120</td>
<td>Introduction to Tribal Natural Resources Stewardship</td>
<td>3</td>
</tr>
</tbody>
</table>

1. May not be counted toward an Alaska Native studies major if used to fulfill general education requirements.

Minor, Alaska Native Studies

Program Requirements

Minimum Requirements for Alaska Native Studies Minor: 15 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANS course at the F300 or F400 level</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>ANS F401</td>
<td>Cultural Knowledge of Native Elders</td>
<td>3</td>
</tr>
<tr>
<td>Alaska Native Studies electives 1</td>
<td></td>
<td>9</td>
</tr>
</tbody>
</table>

1. All minor electives must be approved by the head of the Department of Alaska Native Studies and Rural Development.

Anthropology

B.A., B.S. Degrees

The Department of Anthropology offers a balanced and flexible program of academic courses and research in cultural anthropology, linguistic anthropology, archaeology and biological anthropology. Anthropology contributes to an understanding of the complex problems of human behavior, biology, language, cultural and social organization, and the relationship of humans to their environments. Research carried out in the field, laboratory and library emphasizes past and present modes of living and the origins and distribution of peoples and cultures throughout the world. Although special attention is given to the circumpolar North, faculty also maintain active research programs elsewhere, such as Africa and North America.

Minimum Requirements for Anthropology Bachelor's Degrees: B.A.: 120 credits; B.S.: 120 credits

Learn more about the bachelor's degree in anthropology (https://uaf.edu/academics/programs/bachelors/anthropology.php), including an overview of the program, career opportunities and more.

College of Liberal Arts
Department of Anthropology (http://www.uaf.edu/anthro/)
907-474-7288

Programs

Degrees

- B.A., Anthropology (p. 181)
- B.S., Anthropology (p. 182)

Minor

- Minor, Anthropology (p. 182)

B.A., Anthropology

Program Requirements

Students must earn a C- grade or better in each course.

Minimum Requirements for Anthropology Bachelor's Degrees

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH F211X</td>
<td>Fundamentals of Archaeology</td>
<td>3</td>
</tr>
<tr>
<td>or ANTH F221</td>
<td>Fundamentals of Biological Anthropology</td>
<td></td>
</tr>
<tr>
<td>ANTH F215</td>
<td>Fundamentals of Social/Cultural Anthropology</td>
<td></td>
</tr>
</tbody>
</table>

1. May not be counted toward an Alaska Native studies major if used to fulfill general education requirements.
ANTH/LING F260 Language in Culture and Communication 3
ANTH F384 History of Anthropology 3
ANTH F411 Senior Seminar in Anthropology 3
Complete six anthropology electives, at least four (12 credits) of which are at the F400 level 18

Note: LING F101X satisfies part of the B.A. humanities requirements.

B.S., Anthropology

Program Requirements
Students must earn a C- grade or better in each course.

Minimum Requirements for Anthropology

B.S.: 120 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH F211X</td>
<td>Fundamentals of Archaeology</td>
<td>3</td>
</tr>
<tr>
<td>ANTH F214</td>
<td>World Prehistory</td>
<td>3</td>
</tr>
<tr>
<td>ANTH F215</td>
<td>Fundamentals of Social/Cultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>or ANTH F260</td>
<td>Language in Culture and Communication</td>
<td>3</td>
</tr>
<tr>
<td>or LING F260</td>
<td>Language in Culture and Communication</td>
<td>3</td>
</tr>
<tr>
<td>ANTH F221</td>
<td>Fundamentals of Biological Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>ANTH F309</td>
<td>Circumpolar Archaeology</td>
<td>3</td>
</tr>
<tr>
<td>or ANTH F315</td>
<td>Human Variation</td>
<td></td>
</tr>
<tr>
<td>ANTH F405</td>
<td>Archaeological Method and Theory</td>
<td>3</td>
</tr>
<tr>
<td>ANTH F411</td>
<td>Senior Seminar in Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>ANTH F415</td>
<td>Zooarchaeology and Taphonomy</td>
<td>3-4</td>
</tr>
<tr>
<td>or ANTH F422</td>
<td>Human Osteology</td>
<td></td>
</tr>
<tr>
<td>ANTH F423</td>
<td>Human Origins</td>
<td>4</td>
</tr>
<tr>
<td>ANTH F424</td>
<td>Analytical Techniques</td>
<td>3</td>
</tr>
<tr>
<td>Complete at least two from the following electives:</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>ANTH F426</td>
<td>Bioarchaeology</td>
<td></td>
</tr>
<tr>
<td>ANTH F428</td>
<td>Ecological Anthropology and Regional Sustainability</td>
<td></td>
</tr>
<tr>
<td>ANTH F492</td>
<td>Seminar (Physical Anthropology)</td>
<td></td>
</tr>
<tr>
<td>ANTH F492</td>
<td>Seminar (Archaeology)</td>
<td></td>
</tr>
</tbody>
</table>

1 Courses not selected between ANTH F309 or ANTH F315 and ANTH F415 or ANTH F422 may be used to meet this area.

Minor, Anthropology

Program Requirements

Minimum Requirements for Anthropology

Minor: 18 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH F211X</td>
<td>Fundamentals of Archaeology</td>
<td>3</td>
</tr>
<tr>
<td>ANTH F215</td>
<td>Fundamentals of Social/Cultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>ANTH F221</td>
<td>Fundamentals of Biological Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>ANTH/LING F260</td>
<td>Language in Culture and Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

Anthropology electives 6

Applied Management

B.A.M. Degree

The Bachelor of Applied Management (B.A.M.) online degree is designed for individuals who have completed or will complete 21-30 credit hours in an area of specialization or trade and aspire to assume middle management-level positions in their chosen field.

Applied management majors are desired in nearly every industry including, for example, aviation, automotive technology, hospitality and the growing field of healthcare. This desirability provides a unique opportunity as only a limited number of applied management bachelor degrees exist and many of those are located in for-profit institutions.

The online Bachelor of Applied Management degree provides students with the academic education required to be proficient middle managers in their career fields. It offers students with degrees and certificates, not usually designed to fulfill the requirements within a bachelor’s program, the opportunity to use their skills and degrees/certificates for academic and career growth.

Minimum Requirements for Applied Management Bachelor’s Degree: 120 credits

Learn more about the bachelor’s degree in applied management (https://uaf.edu/academics/programs/bachelors/applied-management.php), including an overview of the program, career opportunities and more.

Learn more about the online bachelor’s degree in applied management (https://uaf.edu/academics/programs/bachelors/applied-management-online.php), including an overview of the program, career opportunities and more.

School of Management
907-474-7461
School of Management homepage (http://www.uaf.edu/som/)

Programs
Degree

• B.A.M., Applied Management (p. 183)
B.A.M., Applied Management

Students must earn a C- grade or better in each course.

Minimum Requirements for Applied Management B.A.M.: 120 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General University Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (p. 154)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>General Education Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general education requirements. (p. 157)</td>
<td></td>
</tr>
<tr>
<td>MATH F122X</td>
<td>Essential Precalculus with Applications</td>
<td>3</td>
</tr>
</tbody>
</table>

B.A.M. Degree Requirements

Complete the B.A.M. degree requirements. (p. 162)

As part of the B.A.M. degree requirements, complete:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA F323X</td>
<td>Business Ethics</td>
<td></td>
</tr>
</tbody>
</table>

Applied Management Program Requirements

Complete 21-30 credit hours in a single specialized technical area or trade

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIS F101</td>
<td>Effective Personal Computer Use</td>
<td>1</td>
</tr>
<tr>
<td>AIS F310</td>
<td>Management of Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>or AIS F316</td>
<td>Accounting Information Systems</td>
<td></td>
</tr>
<tr>
<td>BA F307</td>
<td>Introductory Human Resources Management</td>
<td>3</td>
</tr>
<tr>
<td>BA F308</td>
<td>Professional Development: How to Prepare for a Job and Other Survival Skills</td>
<td>1</td>
</tr>
<tr>
<td>BA F309</td>
<td>Professional Development: Finding a Career</td>
<td>1</td>
</tr>
<tr>
<td>BA F330</td>
<td>The Legal Environment of Business</td>
<td>4</td>
</tr>
<tr>
<td>BA F343</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>BA F490</td>
<td>Services Marketing</td>
<td>3</td>
</tr>
<tr>
<td>or BA F360</td>
<td>Operations Management</td>
<td></td>
</tr>
<tr>
<td>BAM F320</td>
<td>Management</td>
<td>3</td>
</tr>
<tr>
<td>BAM F352</td>
<td>Accounting and Finance</td>
<td>3</td>
</tr>
<tr>
<td>BAM F462</td>
<td>Project Management</td>
<td>3</td>
</tr>
<tr>
<td>ECON F227</td>
<td>Introductory Statistics for Economics and Business</td>
<td>3</td>
</tr>
<tr>
<td>or STAT F200X</td>
<td>Elementary Statistics</td>
<td></td>
</tr>
<tr>
<td>HSEM F416</td>
<td>Cybersecurity Management</td>
<td>3</td>
</tr>
<tr>
<td>or HSEM F415</td>
<td>Cybersecurity in the 21st Century, Technology and Ethics</td>
<td></td>
</tr>
<tr>
<td>or HSEM F417</td>
<td>Cybersecurity Resiliency</td>
<td></td>
</tr>
<tr>
<td>or HSEM F418</td>
<td>Cybercrime, Fraud and Law</td>
<td></td>
</tr>
<tr>
<td>HSEM F445</td>
<td>Business Continuity and Crisis Management</td>
<td>3</td>
</tr>
</tbody>
</table>

Choose one of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA F390</td>
<td>Organizational Theory and Behavior</td>
<td></td>
</tr>
<tr>
<td>BA F391</td>
<td>Alaska Native Corporations: A Historical and Contemporaneous Perspective ¹</td>
<td></td>
</tr>
<tr>
<td>HSEM F461</td>
<td>Human Security in Alaska ¹</td>
<td></td>
</tr>
</tbody>
</table>

| Electives | Complete free electives as needed to meet 120 credits. |

¹ Note that HSEM F461 or BA F391 may be used to satisfy the Alaska Native-themed (p. 174) requirement.

Arctic and Northern Studies

B.A. Degree

The Arctic and Northern studies program offers an interdisciplinary study of Northern problems and policy issues. The purpose of the Arctic and Northern studies program is to give interested students a broader study of the northern region – its environment, peoples and problems.

The geographic location of UAF is outstanding for the study of Arctic and Northern issues. Students examine the countries and regions throughout the circumpolar North and their distinctive problems, such as the survival of indigenous populations, environmental and wilderness issues, high rates of alcoholism and suicide, fragile environments, adaptation to extreme cold and cycles of light and darkness, and adult development in small frontier societies.

The Arctic and Northern studies curriculum is centered around an interdisciplinary course (ACNS F484), which is taken in the senior year.

For information on studying at McGill University, Montreal, Canada; the University of Copenhagen, Denmark; or opportunities for study in Russia and the Commonwealth of Independent States, see Exchange Programs and Study Abroad Programs (p. 86).

Minimum Requirements for Arctic and Northern Studies Bachelor’s Degree: 120 credits

Learn more about the bachelor’s degree in Arctic and Northern studies (https://uaf.edu/academics/programs/bachelors/arctic-northern-studies.php), including an overview of the program, career opportunities and more.

College of Liberal Arts
Department of Arctic and Northern Studies (http://www.uaf.edu/arctic/)
907-474-7126

Programs Degree

• B.A., Arctic and Northern Studies (p. 183)

Minor

• Minor, Arctic and Northern Studies (p. 184)

B.A., Arctic and Northern Studies Program Requirements

Students must earn a C- grade or better in each course.

Minimum Requirements for Arctic and Northern Studies B.A.: 120 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General University Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (p. 154)</td>
<td></td>
</tr>
</tbody>
</table>
### General Education Requirements
Complete the general education requirements. (p. 157)

### B.A. Degree Requirements
Complete the B.A. degree requirements. (p. 164)

### Arctic and Northern Studies Program Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACNS F201</td>
<td>The Circumpolar North: An Introductory Overview</td>
<td>3</td>
</tr>
<tr>
<td>ACNS/GEOG/GEOS F429</td>
<td>Geography of the Arctic and Circumpolar North</td>
<td>3</td>
</tr>
<tr>
<td>ACNS F484</td>
<td>Perspectives on the North ¹</td>
<td>3</td>
</tr>
<tr>
<td>ANS F242X</td>
<td>Indigenous Cultures of Alaska</td>
<td>3</td>
</tr>
<tr>
<td>BIOL F104X</td>
<td>Natural History of Alaska</td>
<td>4</td>
</tr>
<tr>
<td>HIST F483</td>
<td>20th-century Circumpolar History</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete one of the following: 3

- ACNS/ART F425 Visual Images of the North
- ENGL/ANS F349 Narrative Art of Alaska Native Peoples (in English translation)
- ENGL F449 Northern and Environmental Literature

Complete one of the following: 3

- PS F263 Alaska Native Politics
- PS F462 Alaska Government and Politics
- PS F460 Government and Politics of Canada
- PS F468 Government and Politics of Russia

### Electives
Complete 15 credits from two of the following groups: ²

<table>
<thead>
<tr>
<th>Anthropology</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH F302 Siberia: Past, Present, Future</td>
</tr>
<tr>
<td>ANTH F309 Circumpolar Archaeology</td>
</tr>
<tr>
<td>ANTH F320 Language and Culture in Alaska</td>
</tr>
<tr>
<td>ANTH F383 Athabaskan Peoples of Alaska and Adjacent Canada</td>
</tr>
<tr>
<td>ANTH F472 Culture and History in the North Atlantic</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Geography</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG F302 Geography of Alaska</td>
</tr>
<tr>
<td>GEOG F303 Geography of United States and Canada</td>
</tr>
<tr>
<td>GEOG F306 Geography of Russia</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>History</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST F404 Modern Scandinavia</td>
</tr>
<tr>
<td>HIST F461 History of Alaska</td>
</tr>
<tr>
<td>HIST F463 Imperial Russia, 1700-1917</td>
</tr>
<tr>
<td>HIST F464 Soviet and Post-Soviet Russia</td>
</tr>
<tr>
<td>HIST F481 Polar Exploration and Its Literature</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Political Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>PS/ANS F325 Alaska Native and Comparative Tribal Self-Government</td>
</tr>
<tr>
<td>PS/ANS F450 Comparative Indigenous Rights and Policies</td>
</tr>
<tr>
<td>PS F452 International Relations of the North</td>
</tr>
<tr>
<td>PS F454 International Law and the Environment</td>
</tr>
<tr>
<td>PS F460 Government and Politics of Canada</td>
</tr>
<tr>
<td>PS F468 Government and Politics of Russia</td>
</tr>
</tbody>
</table>

| Humanities ³                                                      |

---

1. Fulfills the baccalaureate capstone requirement.
2. Students may not double-count these major requirements to fulfill a minor.
3. Students may not double-count the fulfillment of the humanities of government requirements in major requirements section with government or humanities courses in electives section.
4. Two semesters of a Northern language, such as Eskimo or Russian. By choosing the Northern language option you may have to take additional upper-division credits to meet the minimum general university requirement of 39 upper-division credits.

### Minor, Arctic and Northern Studies Program Requirements

#### Minimum Requirements for Arctic and Northern Studies Minor: 15 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACNS F201</td>
<td>The Circumpolar North: An Introductory Overview</td>
<td>3</td>
</tr>
<tr>
<td>PS F263</td>
<td>Alaska Native Politics</td>
<td>3</td>
</tr>
<tr>
<td>PS F462</td>
<td>Alaska Government and Politics</td>
<td>3</td>
</tr>
<tr>
<td>PS F460</td>
<td>Government and Politics of Canada</td>
<td>3</td>
</tr>
<tr>
<td>PS F468</td>
<td>Government and Politics of Russia</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete any additional 12 ACNS or program-approved Arctic-related credits with approval from a program director

### Arctic Skills

#### Minor Only

The minor in Arctic skills is designed for anyone who lives and works in a northern climate and wishes to learn to cope with the outdoor Arctic environment.

Students who complete this minor also earn a State of Alaska EMTI certificate and may prepare to take the FAA written exam for partial fulfillment of the private pilot certificate requirements.

#### Minimum Requirements for Arctic Skills Minor: 15 credits

- Community and Technical College (http://www.ctc.uaf.edu/)
  - 907-455-2800

### Programs

#### Minor

- Minor, Arctic Skills (p. 185)
Minor, Arctic Skills

Program Requirements

Minimum Requirements for Arctic Skills Minor: 15 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVTY F100</td>
<td>Private Pilot Ground School</td>
<td>3-4</td>
</tr>
<tr>
<td>or AVTY F111</td>
<td>Fundamentals of Aviation</td>
<td></td>
</tr>
<tr>
<td>AVTY F231</td>
<td>Arctic Survival</td>
<td>3</td>
</tr>
<tr>
<td>or EMS F257</td>
<td>Arctic Survival</td>
<td></td>
</tr>
<tr>
<td>EMS F170</td>
<td>EMT: Emergency Medical Technician I</td>
<td>6</td>
</tr>
<tr>
<td>Approved electives</td>
<td>1 Approved by program manager.</td>
<td>3-4</td>
</tr>
</tbody>
</table>

Minimum Requirements for Art Bachelor's Degree: 120 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General University Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (p. 154)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>General Education Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general education requirements. (p. 157)</td>
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</tr>
<tr>
<td></td>
<td>B.A. Degree Requirements</td>
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<tr>
<td></td>
<td>Complete the B.A. degree requirements. (p. 164)</td>
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<td>Art Program Requirements</td>
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<tr>
<td>ART F105X</td>
<td>Beginning Drawing</td>
<td>3</td>
</tr>
<tr>
<td>ART F261X</td>
<td>History of World Art</td>
<td>6</td>
</tr>
<tr>
<td>and ART F262X</td>
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<tr>
<td>ART F161</td>
<td>Two-dimensional Digital Design</td>
<td>3</td>
</tr>
<tr>
<td>ART F162</td>
<td>Color and Design</td>
<td></td>
</tr>
<tr>
<td>ART F163</td>
<td>Three-dimensional Design</td>
<td></td>
</tr>
<tr>
<td>Electives</td>
<td></td>
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<tr>
<td>Complete three from the following electives (at least one must be a two-dimensional area, and one must be a three-dimensional area):</td>
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<tr>
<td>Two-dimensional Areas</td>
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<td>ART F205</td>
<td>Intermediate Drawing</td>
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<tr>
<td>ART F207</td>
<td>Beginning Printmaking</td>
<td></td>
</tr>
<tr>
<td>ART F213</td>
<td>Beginning Painting</td>
<td></td>
</tr>
<tr>
<td>ART F271</td>
<td>Beginning Computer Art</td>
<td></td>
</tr>
<tr>
<td>ART F283</td>
<td>Basic Darkroom Photography</td>
<td></td>
</tr>
<tr>
<td>or ART F284</td>
<td>Basic Digital Photography</td>
<td></td>
</tr>
<tr>
<td>Three-dimensional Areas</td>
<td></td>
<td></td>
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<tr>
<td>ART F201</td>
<td>Beginning Ceramics</td>
<td></td>
</tr>
<tr>
<td>ART F209</td>
<td>Beginning Metalsmithing and Jewelry</td>
<td></td>
</tr>
<tr>
<td>ART F211</td>
<td>Beginning Sculpture</td>
<td></td>
</tr>
<tr>
<td>ART F268</td>
<td>Alaska Native Art Studio I</td>
<td></td>
</tr>
<tr>
<td>Complete three upper-division courses from one of these areas:</td>
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<tr>
<td>Ceramics</td>
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<tr>
<td>Computer Art</td>
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<tr>
<td>Drawing</td>
<td></td>
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<tr>
<td>Metalsmithing</td>
<td></td>
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<tr>
<td>Native Studio Art</td>
<td></td>
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<tr>
<td>Painting</td>
<td></td>
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<tr>
<td>Photography</td>
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<tr>
<td>Printmaking</td>
<td></td>
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<tr>
<td>Sculpture</td>
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<tr>
<td>Complete one of the following upper-division art history courses:</td>
<td>3</td>
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</tr>
<tr>
<td>ART F363</td>
<td>History of Modern Art</td>
<td></td>
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<tr>
<td>ART F364</td>
<td>Italian Renaissance Art</td>
<td></td>
</tr>
<tr>
<td>ART F365</td>
<td>Alaska Native Art History</td>
<td></td>
</tr>
<tr>
<td>ART F425</td>
<td>Visual Images of the North</td>
<td></td>
</tr>
<tr>
<td>ART F463</td>
<td>Seminar in Art History</td>
<td></td>
</tr>
</tbody>
</table>

Art

B.A., B.F.A. Degrees

The art program encourages independent, original and creative thinking while recognizing the role and responsibility of the fine arts within the humanities.

The B.F.A. degree is professionally oriented and designed to prepare students for careers in art. Admission requires a portfolio review by the art faculty, generally done in the student’s junior year. Enrollment in the B.F.A. program is recommended only for students who are willing to make a considerable commitment of time and energy necessary to achieve professional competence in their major areas. Career opportunities for B.F.A. graduates include artist, designer, arts administrator, art teacher, gallery and museum administrator, and computer-related fields.

Minimum Requirements for Art Bachelor’s Degrees: B.A.: 120 credits; B.F.A.: 120 credits

Learn more about the bachelor’s degree in art (https://uaf.edu/academics/programs/bachelors/art.php), including an overview of the program, career opportunities and more.

College of Liberal Arts
Department of Art (http://www.uaf.edu/art/)
907-474-7530

Programs

Degrees

• B.A., Art (p. 185)
• B.F.A., Art (p. 186)

Minor

• Minor, Art (p. 186)
• Minor, Art History (p. 186)

B.A., Art

Program Requirements

Students must earn a C-grade or better in each course.
ART F490  Current Problems  3
Upper-division art elective

1 Fulfills the baccalaureate capstone requirement.

Note: Transfer students who are candidates for the B.A. degree in art must complete a minimum of 12 credits in art while in residence.

Note: In addition to the program (major) requirements above, B.A. students will need additional upper-division credit (e.g., from the social science/humanities requirements and the minor) to equal 39 upper-division credits total.

B.F.A., Art

Program Requirements
Students must earn a C- grade or better in each course.

Minimum Requirements for Art B.F.A.: 120 credits

CONCENTRATIONS: CERAMICS, COMPUTER ART, DRAWING, METALSMITHING, NATIVE STUDIO ART, PAINTING, PHOTOGRAPHY, PRINTMAKING, SCULPTURE

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART F105X</td>
<td>Beginning Drawing</td>
<td>3</td>
</tr>
<tr>
<td>ART F261X</td>
<td>History of World Art</td>
<td>3</td>
</tr>
<tr>
<td>and ART F262X</td>
<td>and History of World Art</td>
<td>3</td>
</tr>
<tr>
<td>Complete two from the following:</td>
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<td>6</td>
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<tr>
<td>ART F161</td>
<td>Two-dimensional Digital Design</td>
<td></td>
</tr>
<tr>
<td>ART F162</td>
<td>Color and Design</td>
<td></td>
</tr>
<tr>
<td>ART F163</td>
<td>Three-dimensional Design</td>
<td></td>
</tr>
<tr>
<td>Complete three from the following electives (at least one must be a two-dimensional area and one must be a three-dimensional area):</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>Two-dimensional Areas:</td>
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<tr>
<td>ART F205</td>
<td>Intermediate Drawing</td>
<td></td>
</tr>
<tr>
<td>ART F207</td>
<td>Beginning Printmaking</td>
<td></td>
</tr>
<tr>
<td>ART F213</td>
<td>Beginning Painting</td>
<td></td>
</tr>
<tr>
<td>ART F231</td>
<td>Previsualization and Preproduction</td>
<td></td>
</tr>
<tr>
<td>ART F271</td>
<td>Beginning Computer Art</td>
<td></td>
</tr>
<tr>
<td>ART F283</td>
<td>Basic Darkroom Photography</td>
<td></td>
</tr>
<tr>
<td>or ART F284</td>
<td>Basic Digital Photography</td>
<td></td>
</tr>
<tr>
<td>Three-dimensional Areas:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ART F201</td>
<td>Beginning Ceramics</td>
<td></td>
</tr>
<tr>
<td>ART F209</td>
<td>Beginning Metalsmithing and Jewelry</td>
<td></td>
</tr>
<tr>
<td>ART F211</td>
<td>Beginning Sculpture</td>
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</tr>
<tr>
<td>ART F268</td>
<td>Alaska Native Art Studio I</td>
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</tr>
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</table>

Complete three from the following upper-division art history courses: 9

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>ART F363</td>
<td>History of Modern Art</td>
</tr>
<tr>
<td>ART F364</td>
<td>Italian Renaissance Art</td>
</tr>
<tr>
<td>ART F365</td>
<td>Alaska Native Art History</td>
</tr>
<tr>
<td>ART F425</td>
<td>Visual Images of the North</td>
</tr>
<tr>
<td>ART F463</td>
<td>Seminar in Art History</td>
</tr>
<tr>
<td>ART F490</td>
<td>Current Problems</td>
</tr>
</tbody>
</table>

Upper-division art electives 6

1 Major program must include at least two, and no more than three, studio areas. Minimum requirement for the first area is 15 upper-division credits. Minimum requirement for the second area is 9 upper-division credits.

Note: A minor is not required for this degree.

Note: Transfer students who are candidates for the B.F.A. in art must complete a minimum of 15 credits in art while in residence.

Note: All studio areas in the department are eligible for fulfillment of specialization requirements: ceramics, computer art, metalsmithing, Native art, painting, drawing, photography, printmaking and sculpture.

Minor, Art

Program Requirements
Students must earn a C- grade or better in each course.

Minimum Requirements for Art Minor: 18 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Complete the following:</td>
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<td></td>
</tr>
<tr>
<td>ART F105X</td>
<td>Beginning Drawing</td>
<td>3</td>
</tr>
<tr>
<td>ART F261X</td>
<td>History of World Art</td>
<td>3</td>
</tr>
<tr>
<td>Complete one of the following:</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>ART F161</td>
<td>Two-dimensional Digital Design</td>
<td></td>
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<td>ART F162</td>
<td>Color and Design</td>
<td></td>
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<tr>
<td>ART F163</td>
<td>Three-dimensional Design</td>
<td></td>
</tr>
<tr>
<td>Art Electives</td>
<td></td>
<td>9</td>
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</table>

Note: A minor in art is only available to non-art majors.

Minor, Art History

Students must earn a C- grade or better in each course.
Minimum Requirements for Art History Minor: 15 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ART F261X</td>
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<tr>
<td>ART F262X</td>
<td>History of World Art</td>
<td>3</td>
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<tr>
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<td>9</td>
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<tr>
<td>ART F363</td>
<td>History of Modern Art</td>
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<td></td>
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<tr>
<td>ART F463</td>
<td>Seminar in Art History</td>
<td></td>
</tr>
<tr>
<td>ART F464</td>
<td>History of Photography</td>
<td></td>
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</tbody>
</table>

One art studio course may be substituted per department approval.

Asian Studies

Minor Only

A minor in Asian studies provides interdisciplinary instruction in the varieties of Asian languages and cultures. It enables students to consolidate various course offerings into a meaningful and cohesive program relevant to several major fields of specialization. (Combining a Japanese studies major with an Asian studies minor requires approval from both programs.)

Minimum Requirements for Asian Studies Minor: 15 credits

College of Liberal Arts
Department of Asian Studies (http://www.uaf.edu/asianstudies/)
907-474-6507

Programs

Minor

• Minor, Asian Studies (p. 187)

Minor, Asian Studies

Program Requirements

Minimum Requirements for Asian Studies Minor: 15 credits

<table>
<thead>
<tr>
<th>Code</th>
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Anthropology

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<tr>
<td>ANTH F302</td>
<td>Siberia: Past, Present, Future</td>
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Foreign Languages

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<tr>
<td>CHNS F101X</td>
<td>Elementary Chinese I</td>
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<td>CHNS F102X</td>
<td>Elementary Chinese II</td>
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<tr>
<td>CHNS F201</td>
<td>Intermediate Chinese I</td>
<td></td>
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<tr>
<td>CHNS F202</td>
<td>Intermediate Chinese II</td>
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<tr>
<td>JPN F101X</td>
<td>Elementary Japanese I</td>
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<td>JPN F102X</td>
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<th>Geography</th>
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History

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<td>HIST F121</td>
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<td>HIST F122X</td>
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<td>HIST F330</td>
<td>Modern China</td>
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<td>HIST F331</td>
<td>Modern Japan</td>
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<td>PS F304</td>
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<td>PS F464</td>
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</table>

1 Courses must be distributed among at least three departments and include material on at least two Asian countries. Students are strongly encouraged to include a semester or more of Asian language.

Aviation Technology

Minor

The minor in aviation technology is designed to provide the opportunity to become familiar with the aviation field, with particular emphasis on the use of aviation as a tool and economic process within the Alaska environment.

Minimum Requirements for Aviation Technology Minor: 16 credits

Community and Technical College
907-455-2800
Aviation Technology website (http://www.ctc.uaf.edu/programs/pilot/)

Programs

Minor

• Minor, Aviation Technology (p. 187)

Degree

• A.A.S., Piloting, Professional (p. 147)

Minor, Aviation Technology

Minimum Requirements for Aviation Technology Minor: 16 credits

<table>
<thead>
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<th>Code</th>
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<td>AVTY F100</td>
<td>Private Pilot Ground School</td>
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<table>
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<tr>
<td>AVTY F155</td>
<td>Preventive Maintenance</td>
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</tr>
<tr>
<td>AVTY F231</td>
<td>Arctic Survival</td>
<td>3</td>
</tr>
<tr>
<td>AVTY F235</td>
<td>Elements of Weather</td>
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</table>
Elective
AVTY elective or AFPM advisor-approved elective 3

Biological Sciences

B.A., B.S. Degrees

Biological sciences is an appropriate major for students interested in the science of life. A baccalaureate degree in biology is a foundation for careers in health, environment, science education and research, and forms the basis for advanced study in graduate and professional degree programs.

Biological sciences majors may pursue either a B.A. or a B.S. degree. Because biology is an interdisciplinary science, both programs include course work in the physical sciences and mathematics. The B.A. requires fewer credits in natural science and more credits in the social sciences and humanities than the B.S. degree, which focuses more intensively on biological science. The B.S. degree without a concentration provides the most comprehensive education in biology. The B.S. degree with a concentration permits some degree of specialization in one of four subdisciplines: cell and molecular biology, physiology, biomedical science, or ecology and evolutionary biology.

Students majoring in the biological sciences must complete a capstone research project during their junior or senior year. The goal of the capstone experience is to apply the skills and information gained in course work to an original research project. Students will signal their intent to complete the capstone requirement by registering for BIOL F400. The capstone research project itself may be completed within one of the several designated courses or by working individually with a faculty mentor. If the capstone project is conducted within a designated course, a passing grade on the research project itself is required to satisfy the capstone requirement regardless of the course grade. Biology course credit for mentored research is available as individual study, BIOL F497. More information about the capstone requirement is posted on the Biology and Wildlife Department website. Students are strongly encouraged to speak to a biology advisor well before their senior year about how they plan to satisfy the capstone requirement.

All biological sciences majors are required to take a standardized examination in the senior year for programmatic assessment purposes. The score on the exam does not affect graduation and is free to the student. The exam is taken during the required BIOL F481 course.

Minimum Requirements for Biological Sciences Bachelor’s Degrees: 120 credits

Learn more about the bachelor’s degree in biological sciences (https://uaf.edu/academics/programs/bachelors/biological-sciences.php), including an overview of the program, career opportunities and more.

College of Natural Science and Mathematics
Department of Biology and Wildlife (http://www.bw.uaf.edu)
907-474-7671

Programs

Degrees

• B.A., Biological Sciences (p. 188)
• B.S., Biological Sciences (without concentration) (p. 192)
• B.S., Biological Sciences (with concentration) (p. 190)

Minor

• Minor, Biological Sciences (p. 194)

B.A., Biological Sciences

Program Requirements

Students must earn a C- grade or better in each course.

Minimum Requirements for Biological Sciences B.A.: 120 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
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<td>General University Requirements</td>
<td>Complete the general university requirements. (p. 154)</td>
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<td>General Education Requirements</td>
<td>Complete the general education requirements. (p. 157)</td>
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<tr>
<td>B.A. Degree Requirements</td>
<td>Complete the B.A. degree requirements. (p. 164)</td>
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</tr>
<tr>
<td>Electives</td>
<td>Complete: 1</td>
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<tr>
<td>STAT F200X</td>
<td>Elementary Statistics</td>
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<td>Biological Sciences Program Requirements</td>
<td>Complete the biological sciences program requirements.</td>
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<td>BIOL F115X</td>
<td>Fundamentals of Biology I</td>
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<td>BIOL F116X</td>
<td>Fundamentals of Biology II</td>
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<tr>
<td>BIOL F260</td>
<td>Principles of Genetics</td>
<td>4</td>
</tr>
<tr>
<td>BIOL F481</td>
<td>Principles of Evolution</td>
<td>4</td>
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<td>CHEM F321</td>
<td>Organic Chemistry I</td>
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<td>PHYS F123X</td>
<td>College Physics I</td>
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<td>or CS F103</td>
<td>Introduction to Computer Programming</td>
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<td>Computer Science I</td>
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<td>Biology Breadth Requirements</td>
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<tr>
<td>BIOL F310</td>
<td>Animal Physiology</td>
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<td>or BIOL F111X</td>
<td>Human Anatomy and Physiology I</td>
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<tr>
<td>and BIOL F112X</td>
<td>and Human Anatomy and Physiology II</td>
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<tr>
<td>or BIOL F342</td>
<td>Microbiology</td>
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<td>or BIOL F434</td>
<td>Structure and Function of Vascular Plants</td>
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<td>BIOL F360</td>
<td>Cell and Molecular Biology</td>
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<td>BIOL F371</td>
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<td>Complete three courses from the following: 3</td>
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<td>Capstone</td>
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<tr>
<td>Satisfactory completion of a capstone research project which can be done either working individually with a faculty member or within one of the following courses: 5,6</td>
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<tr>
<td>BIOL F434</td>
<td>Structure and Function of Vascular Plants</td>
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</tr>
<tr>
<td>BIOL F441</td>
<td>Animal Behavior</td>
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</table>
Students should consider the UAF requirement for 39 upper division credits when choosing courses to fulfill humanities, social science, and minor degree credits.

Because biology breadth courses for the B.A. degree serve as prerequisites for many upper-division biology electives, course choices should be made with consideration of the elective biology courses the student plans to complete.

BIOL F397, BIOL F497, URSA F388 or URSA F488 courses may be substituted by petition for a maximum of two required elective courses in biology (3-4 credits of independent study or research per substituted course). The subject area of the independent study or research will determine which biological subject areas the credits satisfy.

Fulfills the baccalaureate capstone requirement.

Students working individually with a faculty member may, for example, take BIOL F497 credits or work with the faculty member without taking course credits.

Capstone courses may be double counted as electives.

Note: A foreign language is encouraged by the department in meeting requirements of the core curriculum.

**Biology Elective Course Lists**

Courses that satisfy upper-division elective credit may require prerequisites.

**LIST A - CELL AND MOLECULAR BIOLOGY**

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<td>Neurobiology</td>
<td>3</td>
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<tr>
<td>BIOL F435</td>
<td>Introduction to Biology of Cancer</td>
<td>3</td>
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<td>BIOL F460</td>
<td>Principles of Virology</td>
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<td>BIOL F462</td>
<td>Infectious Diseases</td>
<td>3</td>
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<tr>
<td>BIOL F465</td>
<td>Immunology</td>
<td>3</td>
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<tr>
<td>BIOL F466</td>
<td>Advanced Cell and Molecular Laboratory</td>
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<tr>
<td>BIOL F491</td>
<td>The Human Microbiome</td>
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<td>CHEM F325</td>
<td>Organic Chemistry II</td>
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<td>CHEM F351</td>
<td>General Biochemistry: Metabolism</td>
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<td>Information Storage and Transfer: Molecules and Pathways</td>
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<td>CHEM F470</td>
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**LIST B - PHYSIOLOGY**

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**LIST C - ECOLOGY AND EVOLUTIONARY BIOLOGY**

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<td>Conservation Genetics</td>
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<td>Freshwater Habitat Dynamics</td>
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<td>BIOL F457</td>
<td>Environmental Microbiology</td>
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<td>Landscape Ecology and Wildlife Habitat</td>
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<td>BIOL F485</td>
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<td>Conceptual Issues in Evolutionary Biology</td>
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<td>Arctic Vegetation Ecology: Geobotany</td>
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<td>BIOL F489</td>
<td>Vegetation Description and Analysis</td>
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<td>WLF F301</td>
<td>Design of Wildlife Studies</td>
<td>3</td>
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<tr>
<td>WLF F421</td>
<td>Ecology and Management of Large Mammals</td>
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**LIST D - ORGANISMAL BIOLOGY**

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<td>Entomology</td>
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<td>BIOL F418</td>
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<td>Ichthyology</td>
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<tr>
<td>BIOL F489</td>
<td>Vegetation Description and Analysis</td>
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</table>
B.S., Biological Sciences with Concentration Program

Minimum Requirements for Biological Sciences B.S.: 120 credits

CONCENTRATIONS: BIOMEDICAL SCIENCE (P. 191); CELL AND MOLECULAR BIOLOGY (P. 191); ECOLOGY AND EVOLUTIONARY BIOLOGY (P. 191); PHYSIOLOGY (P. 191)

B.S. Degree Requirements

Complete the B.S. degree requirements. (p. 170)

As part of the B.S. degree requirements, complete:

- BIOL F111X Fundamentals of Biology I
- BIOL F116X Fundamentals of Biology II
- STAT F200X Elementary Statistics
  or STAT F300 Statistics

Program Requirements

Students must earn a C- grade or better in each course.

Concentration

Complete one from the following concentrations: 1 21-28

- Cell and Molecular Biology
- Physiology
- Ecology and Evolutionary Biology
- Biomedical Science

Capstone 2

BIOL F400 Biological Sciences Capstone Project 0

Satisfactory completion of a capstone research project which can be done either working individually with a faculty member or within one of the following courses: 3 4 0-4

- BIOL F434 Structure and Function of Vascular Plants
- BIOL F440 Behavioral Neuroscience Research Capstone
- BIOL F441 Animal Behavior
- BIOL F466 Advanced Cell and Molecular Laboratory
- BIOL F472 Community Ecology
- BIOL F473 Limnology
- BIOL F491 The Human Microbiome

1 BIOL F397, BIOL F497, URSA F388 or URSA F488 courses may be substituted by petition for a maximum of two required elective courses in biology (3-4 credits of independent study or research per substituted course). The subject area of the independent study or research will determine which biological subject areas the credits satisfy.

2 Fulfills the baccalaureate capstone requirement.

3 Students working individually with a faculty member may, for example, take BIOL F497 credits or work with a faculty member without taking course credits.

4 Capstone courses may be double counted as electives.
**Note:** A foreign language is encouraged by the department to meet the general education requirements.

### Concentrations

#### BIOMEDICAL SCIENCE

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<tr>
<td>or ECON F201X</td>
<td>Principles of Economics I: Microeconomics</td>
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<td>or ECON F202X</td>
<td>Principles of Economics II: Macroeconomics</td>
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<tr>
<td>PSY F101X</td>
<td>Introduction to Psychology</td>
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<tr>
<td>SOC F101X</td>
<td>Introduction to Sociology</td>
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<td></td>
<td>Complete the following as part of the program requirements:</td>
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<td>and BIOL F112X</td>
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<tr>
<td>or BIOL F310</td>
<td>Animal Physiology</td>
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<tr>
<td>CHEM F325</td>
<td>Organic Chemistry II</td>
<td></td>
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<tr>
<td>PHYS F124X</td>
<td>College Physics II</td>
<td></td>
</tr>
<tr>
<td>or PHYS F212X</td>
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### Biology Elective

Complete one additional course from lists A, B, or E 3-4

### PHYSIOLOGY

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<tr>
<td>or ECON F201X</td>
<td>Principles of Economics I: Microeconomics</td>
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<td>PSY F101X</td>
<td>Introduction to Psychology</td>
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<td>SOC F101X</td>
<td>Introduction to Sociology</td>
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<td></td>
<td>Complete the following as part of the program requirements:</td>
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<tr>
<td>BIOL F111X</td>
<td>Human Anatomy and Physiology I</td>
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</tr>
<tr>
<td>and BIOL F112X</td>
<td>and Human Anatomy and Physiology II</td>
<td></td>
</tr>
<tr>
<td>or BIOL F310</td>
<td>Animal Physiology</td>
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<tr>
<td>CHEM F325</td>
<td>Organic Chemistry II</td>
<td></td>
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<tr>
<td>PHYS F124X</td>
<td>College Physics II</td>
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<tr>
<td>or PHYS F212X</td>
<td>General Physics II</td>
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### Biology Elective

Complete one additional course from lists C or D 3-4

### Biology Elective Course Lists

Courses that satisfy upper-division elective credit may require prerequisites.

#### LIST A - CELL AND MOLECULAR BIOLOGY

<table>
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### Biology Elective

Complete one additional course from lists A, B, or E 3-4

#### LIST B - PHYSIOLOGY

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### Biology Elective

Complete one additional course from lists C or D 3-4
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**LIST C - ECOLOGY AND EVOLUTIONARY BIOLOGY**

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**LIST D - ORGANISMAL BIOLOGY**

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<tr>
<td>BIOL F418</td>
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**LIST E - BIOMEDICAL SCIENCE**

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<td>BIOL F440</td>
<td>Behavioral Neuroscience Research Capstone</td>
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**B.S., Biological Sciences without Concentration**

**Program Requirements**

Students must earn a C- grade or better in each course.

**Minimum Requirements for Biological Sciences without Concentration B.S.: 120 credits**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL F455</td>
<td>Environmental Toxicology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL F460</td>
<td>Principles of Virology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL F462</td>
<td>Infectious Diseases</td>
<td>3</td>
</tr>
<tr>
<td>BIOL F465</td>
<td>Immunology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL F466</td>
<td>Advanced Cell and Molecular Laboratory</td>
<td></td>
</tr>
<tr>
<td>BIOL F491</td>
<td>The Human Microbiome</td>
<td>4</td>
</tr>
<tr>
<td>CHEM F450</td>
<td>Information Storage and Transfer: Molecules and Pathways</td>
<td>3</td>
</tr>
<tr>
<td>CHEM F470</td>
<td>Cellular and Molecular Neuroscience</td>
<td>3</td>
</tr>
<tr>
<td>CHEM F474</td>
<td>Neurochemistry</td>
<td>3</td>
</tr>
</tbody>
</table>

**B.S. Degree Requirements**

Complete the B.S. degree requirements. (p. 170)

As part of the B.S. degree requirements, complete:

- MATH F230X Essential Calculus with Applications or MATH F251X Calculus I
- CHEM F105X General Chemistry I and CHEM F106X General Chemistry II
- STAT F200X Elementary Statistics or STAT F300 Statistics
- BIOL F115X Fundamentals of Biology I
- BIOL F116X Fundamentals of Biology II

**Biological Sciences without Concentration Program Requirements**

Complete the biological sciences without concentration program requirements.

- BIOL F260 Principles of Genetics 4
- BIOL F360 Cell and Molecular Biology 3
- BIOL F371 Principles of Ecology 4
- BIOL F481 Principles of Evolution 4
- CHEM F321 Organic Chemistry I 4
- CHEM F325 Organic Chemistry II 3-4
- BIOL F401 Fundamentals of Pharmacology 3
- BIOL F412 Exercise Physiology 3
- BIOL F417 Neurobiology 3
- BIOL F435 Introduction to Biology of Cancer 3
- BIOL F440 Behavioral Neuroscience Research Capstone 3
- BIOL F455 Environmental Toxicology 3
- BIOL F460 Principles of Virology 3
- BIOL F462 Infectious Diseases 3
- BIOL F465 Immunology 3
- BIOL F466 Advanced Cell and Molecular Laboratory 3
- BIOL F491 The Human Microbiome 4
- CHEM F450 Information Storage and Transfer: Molecules and Pathways 3
- CHEM F470 Cellular and Molecular Neuroscience 3
- CHEM F474 Neurochemistry 3

**General University Requirements**

Complete the general university requirements. (p. 154)

**General Education Requirements**

Complete the general education requirements. (p. 157)

As part of the general education requirements, complete:

- MATH F230X Essential Calculus with Applications or MATH F251X Calculus I
- CHEM F105X General Chemistry I and CHEM F106X General Chemistry II
- STAT F200X Elementary Statistics or STAT F300 Statistics
- BIOL F115X Fundamentals of Biology I
- BIOL F116X Fundamentals of Biology II
or CS F201  Computer Science I
Complete one from the following 4 options:  4-8
BIOL F111X  Human Anatomy and Physiology I
and BIOL F112X  and Human Anatomy and Physiology II
BIOL F310  Animal Physiology
BIOL F342  Microbiology
BIOL F434  Structure and Function of Vascular Plants

Electives
Organismal elective
Complete one additional course from the following:  3-4

List D
Biology electives
Complete four additional courses from the following:  12-16
Lists A, B, C, D, or E
Capstone  2

BIOL F400  Biological Sciences Capstone Project  0
Satisfactory completion of a capstone project, which can be done either working individually with a faculty member or within one of the following courses:  3,4
BIOL F434  Structure and Function of Vascular Plants
BIOL F440  Behavioral Neuroscience Research Capstone
BIOL F441  Animal Behavior
BIOL F466  Advanced Cell and Molecular Laboratory
BIOL F472  Community Ecology
BIOL F473  Limnology
BIOL F491  The Human Microbiome

1  BIOL F397, BIOL F497, URSA F388 or URSA F488 courses may be substituted by petition for a maximum of two required elective courses in biology (3-4 credits of independent study or research per substituted course). The subject area of the independent study or research will determine which biological subject areas the credits satisfy.
2  Fulfills the baccalaureate capstone requirement.
3  Students working individually with a faculty member may, for example, take BIOL F497, or may work with a faculty member taking without course credits.
4  Capstone courses may be double counted as electives.

Note: A foreign language is encouraged by the department in meeting requirements of the general education requirements.

Biology Elective Course Lists
Courses that satisfy upper-division elective credit may require prerequisites.

LIST A - CELL AND MOLECULAR BIOLOGY

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL F342</td>
<td>Microbiology</td>
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<td>BIOL F360</td>
<td>Cell and Molecular Biology</td>
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<tr>
<td>BIOL F417</td>
<td>Neurobiology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL F435</td>
<td>Introduction to Biology of Cancer</td>
<td>3</td>
</tr>
<tr>
<td>BIOL F460</td>
<td>Principles of Virology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL F462</td>
<td>Infectious Diseases</td>
<td>3</td>
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<tr>
<td>BIOL F465</td>
<td>Immunology</td>
<td>3</td>
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<tr>
<td>BIOL F466</td>
<td>Advanced Cell and Molecular Laboratory</td>
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<tr>
<td>BIOL F491</td>
<td>The Human Microbiome</td>
<td>4</td>
</tr>
<tr>
<td>CHEM F325</td>
<td>Organic Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>CHEM F450</td>
<td>Information Storage and Transfer: Molecules and Pathways</td>
<td>3</td>
</tr>
<tr>
<td>CHEM F351</td>
<td>General Biochemistry, Metabolism</td>
<td>3</td>
</tr>
<tr>
<td>CHEM F470</td>
<td>Cellular and Molecular Neuroscience</td>
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</tr>
<tr>
<td>CHEM F474</td>
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LIST B - PHYSIOLOGY

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<tr>
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<td>BIOL F312</td>
<td>Medical Physiology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL F335</td>
<td>Principles of Epidemiology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL F342</td>
<td>Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL F412</td>
<td>Exercise Physiology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL F440</td>
<td>Behavioral Neuroscience Research Capstone</td>
<td>3</td>
</tr>
<tr>
<td>BIOL F441</td>
<td>Animal Behavior</td>
<td>3</td>
</tr>
<tr>
<td>BIOL F455</td>
<td>Environmental Toxicology</td>
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<tr>
<td>BIOL F457</td>
<td>Environmental Microbiology</td>
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<td>BIOL F462</td>
<td>Infectious Diseases</td>
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<td>BIOL F465</td>
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LIST C - ECOLOGY AND EVOLUTIONARY BIOLOGY

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<tr>
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<th>Title</th>
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<tr>
<td>BIOL F371</td>
<td>Principles of Ecology</td>
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<tr>
<td>BIOL F415</td>
<td>Systematic and Comparative Biology</td>
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<tr>
<td>BIOL F418</td>
<td>Biogeography</td>
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<td>BIOL F433</td>
<td>Conservation Genetics</td>
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<tr>
<td>BIOL F441</td>
<td>Animal Behavior</td>
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<td>BIOL F446</td>
<td>Freshwater Habitat Dynamics</td>
<td>3</td>
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<tr>
<td>BIOL F457</td>
<td>Environmental Microbiology</td>
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</tr>
<tr>
<td>BIOL F469</td>
<td>Landscape Ecology and Wildlife Habitat</td>
<td>3</td>
</tr>
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<td>BIOL F471</td>
<td>Population Ecology</td>
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<tr>
<td>BIOL F472</td>
<td>Community Ecology</td>
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<tr>
<td>BIOL F473</td>
<td>Limnology</td>
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<tr>
<td>BIOL F476</td>
<td>Ecosystem Ecology</td>
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<td>BIOL F483</td>
<td>Stream Ecology</td>
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<tr>
<td>BIOL F485</td>
<td>Global Change Biology</td>
<td>3</td>
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<tr>
<td>BIOL F486</td>
<td>Vertebrate Paleontology</td>
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<tr>
<td>BIOL F487</td>
<td>Conceptual Issues in Evolutionary Biology</td>
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<tr>
<td>BIOL F488</td>
<td>Arctic Vegetation Ecology Geobotany</td>
<td>3</td>
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<tr>
<td>BIOL F489</td>
<td>Vegetation Description and Analysis</td>
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<tr>
<td>WLF F301</td>
<td>Design of Wildlife Studies</td>
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LIST D - ORGANISMAL BIOLOGY

<table>
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<tr>
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<tr>
<td>BIOL F239</td>
<td>Introduction to Plant Biology</td>
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<tr>
<td>BIOL F331</td>
<td>Systematic Botany</td>
<td>3</td>
</tr>
<tr>
<td>BIOL F406</td>
<td>Entomology</td>
<td>4</td>
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<tr>
<td>BIOL F418</td>
<td>Biogeography</td>
<td>3</td>
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<tr>
<td>BIOL F425</td>
<td>Mammalogy</td>
<td>3</td>
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<tr>
<td>BIOL F426</td>
<td>Ornithology</td>
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<tr>
<td>BIOL F427</td>
<td>Ichthyology</td>
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<tr>
<td>BIOL F486</td>
<td>Vertebrate Paleontology</td>
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LIST E - BIOMEDICAL SCIENCE

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<td>BIOL F312</td>
<td>Medical Physiology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL F335</td>
<td>Principles of Epidemiology</td>
<td>3</td>
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<tr>
<td>BIOL F401</td>
<td>Fundamentals of Pharmacology</td>
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<tr>
<td>BIOL F402</td>
<td>Biomedical and Research Ethics</td>
<td>3</td>
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<tr>
<td>BIOL F412</td>
<td>Exercise Physiology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL F417</td>
<td>Neurobiology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL F435</td>
<td>Introduction to Biology of Cancer</td>
<td>3</td>
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<tr>
<td>BIOL F440</td>
<td>Behavioral Neuroscience Research Capstone</td>
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<td>BIOL F455</td>
<td>Environmental Toxicology</td>
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<tr>
<td>BIOL F460</td>
<td>Principles of Virology</td>
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<td>BIOL F462</td>
<td>Infectious Diseases</td>
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<tr>
<td>BIOL F465</td>
<td>Immunology</td>
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</tr>
<tr>
<td>BIOL F466</td>
<td>Advanced Cell and Molecular Laboratory</td>
<td>3</td>
</tr>
<tr>
<td>BIOL F491</td>
<td>The Human Microbiome</td>
<td>4</td>
</tr>
<tr>
<td>CHEM F450</td>
<td>Information Storage and Transfer: Molecules and Pathways</td>
<td>3</td>
</tr>
<tr>
<td>CHEM F470</td>
<td>Cellular and Molecular Neuroscience</td>
<td>3</td>
</tr>
<tr>
<td>CHEM F474</td>
<td>Neurochemistry</td>
<td>3</td>
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</table>

Minor, Biological Sciences

Program Requirements

Students must earn a C- grade or better in each course.

Minimum Requirements for Biological Sciences Minor: 18 credits

<table>
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<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL F115X</td>
<td>Fundamentals of Biology I</td>
<td>4</td>
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<tr>
<td>BIOL F116X</td>
<td>Fundamentals of Biology II</td>
<td>4</td>
</tr>
<tr>
<td>BIOL F260</td>
<td>Principles of Genetics</td>
<td>4</td>
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</table>

Complete one from the following options: 1

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>BIOL F111X</td>
<td>Human Anatomy and Physiology I</td>
</tr>
<tr>
<td>BIOL F112X</td>
<td>Human Anatomy and Physiology II</td>
</tr>
<tr>
<td>BIOL F310</td>
<td>Animal Physiology</td>
</tr>
</tbody>
</table>

BIOL F342 | Microbiology
BIOL F360 | Cell and Molecular Biology
BIOL F371 | Principles of Ecology
BIOL F434 | Structure and Function of Vascular Plants
BIOL F481 | Principles of Evolution

Complete one additional course in biology at the 200 level or above 3

1 Courses that satisfy upper-division elective credit may require prerequisites in addition to the required biology course.

Business Administration

B.B.A. Degree

The business administration program offers professional education to students interested in economics, finance, leadership, marketing and sport management.

Competent management practices require an education that is both broad and deep. The business administration program prepares graduates to meet complex technical, economic and social problems and enables them to apply imaginative and responsible leadership to the needs of industry and government.

The undergraduate and graduate business administration programs are accredited by the Association to Advance Collegiate Schools of Business.

Minimum Requirements for Business Administration Bachelor’s Degree: 120 credits

Learn more about the bachelor's degree in business administration (https://uaf.edu/academics/programs/bachelors/business-administration.php), including an overview of the program, career opportunities and more.

Learn more about the online bachelor's degree in business administration (https://uaf.edu/academics/programs/bachelors/business-administration-online.php), including an overview of the program, career opportunities and more.

School of Management
Department of Business Administration (http://www.uaf.edu/som/degrees/undergraduate/ba/)
907-474-7461

Programs

Degree

- B.B.A., Business Administration (p. 195)

Minors

- Minor, Finance (p. 196)
- Minor, General Business (p. 196)
- Minor, Management and Organizations (p. 196)
- Minor, Marketing (p. 196)
- Minor, Sport Management (p. 196)
B.B.A., Business Administration

Program Requirements

Students must earn a C- grade or better in each course.

Minimum Requirements for Business Administration B.B.A.: 120 credits

CONCENTRATIONS: FINANCE (P. 195), GENERAL BUSINESS (P. 195), LEADERSHIP (P. 195), MARKETING (P. 195), SPORT MANAGEMENT (P. 195), ECONOMICS (P. 196)

<table>
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<tr>
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<tr>
<td>General University Requirements</td>
<td>Complete the general university requirements. (p. 154)</td>
<td></td>
</tr>
<tr>
<td>General Education Requirements</td>
<td>Complete the general education requirements. (p. 157)</td>
<td></td>
</tr>
<tr>
<td>As part of the general education requirements, complete:</td>
<td></td>
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<tr>
<td>MATH F122X Essential Precalculus with Applications</td>
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</table>

B.B.A. Degree Requirements

1 Complete the B.B.A. degree requirements. (p. 165)

As part of the B.B.A degree requirements, complete:

<table>
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<tr>
<th>Code</th>
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<tbody>
<tr>
<td>BA F323X Business Ethics</td>
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<tr>
<td>AIS F310 Management of Information Systems</td>
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<td>AIS F316 Accounting Information Systems</td>
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<td>BA F307 Introductory Human Resources Management</td>
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<td>BA F460 International Business</td>
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<td>BA F461 International Finance</td>
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<tr>
<td>Additional 9 credits from ACCT, BA or ECON or a second concentration.</td>
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</table>

Concentrations

Complete one or more from the following concentrations: Finance, General Business, Marketing, Sport Management, Leadership, Economics

Electives

Electives may be taken as needed to meet 120 credits.

\[1 \text{ As part of the B.B.A. degree requirements, BA F462 fulfills the baccalaureate capstone requirement.} \]

Students majoring in business administration may not minor in the following: economics, finance, general business, management and organizations, marketing, sport management or the business administration track of the leadership minor.

Note: The B.B.A. degree requires 50 percent of the accounting, business administration and economics credits to be earned at UAF. Twenty-four out of the last 30 credits earned must be taken at UAF.

Note: Students may earn a B.B.A. with more than one concentration in the above areas.

Note: Only one B.B.A. degree may be earned with a major in business administration.

CONCENTRATIONS

FINANCE

<table>
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<tr>
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<tr>
<td>BA F423 Investment Analysis</td>
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<td>BA F424 Real Estate and Alternative Investments</td>
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<td>BA F454 Student Investment Fund</td>
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<td>BA F455 Portfolio Management</td>
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<td>BA F458 Real Estate Investment Fund</td>
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<td>BA F461 International Finance</td>
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GENERAL BUSINESS

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<tbody>
<tr>
<td>BA F462</td>
<td>Fulfills the baccalaureate capstone requirement.</td>
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</tbody>
</table>

At least 6 credits must be BA courses, the rest may be select AIS, ACCT, ECON, HSEM or SPRT classes. 3

At least 6 credits must be upper-division

3 Classes must be different than those used to meet the BBA degree and the major requirements. Courses cannot double count.

LEADERSHIP

<table>
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<tr>
<th>Code</th>
<th>Title</th>
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<tr>
<td>BA/SPRT F280 Sport Leadership</td>
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<tr>
<td>BA/LEAD F470 Leadership Theory and Development</td>
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<tr>
<td>BA/LEAD F472 Leading Change</td>
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<td>HSEM/LEAD F456 Leadership in Dangerous Contexts</td>
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MARKETING

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<tr>
<td>BA F241 Advertising, Sales and Promotion</td>
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<td>BA F436 Consumer Behavior</td>
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<td>BA F443 Social Media Marketing</td>
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<td>BA F445 Marketing Research</td>
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<td>BA/SPRT F482 Sport Marketing</td>
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<td>BA F490 Services Marketing</td>
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<td>BA F491 Current Topics in Marketing</td>
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SPORT MANAGEMENT

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<tr>
<td>BA/SPRT F281X Introduction to Sport Management</td>
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<td>BA/SPRT F481 Entertainment and Sport Event Management</td>
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<td>BA/SPRT F482 Sport Marketing</td>
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ECONOMICS

Admission to this concentration is currently suspended.

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<tbody>
<tr>
<td></td>
<td>Complete three from the following:</td>
<td>2</td>
</tr>
<tr>
<td>ECON F321</td>
<td>Intermediate Microeconomics</td>
<td></td>
</tr>
<tr>
<td>ECON F327</td>
<td>Intermediate Econometrics for Forecasting and Business</td>
<td></td>
</tr>
<tr>
<td>ECON F350</td>
<td>Money and Banking</td>
<td></td>
</tr>
<tr>
<td>ECON F351</td>
<td>Public Finance</td>
<td></td>
</tr>
<tr>
<td>ECON F420</td>
<td>Labor Markets and Public Policy</td>
<td></td>
</tr>
<tr>
<td>ECON F434</td>
<td>Environmental Economics</td>
<td></td>
</tr>
<tr>
<td>ECON F439</td>
<td>Energy Economics</td>
<td></td>
</tr>
</tbody>
</table>

2 These must be different than the 300 or 400-level ECON course used to meet the BBA degree requirement. Courses cannot double count.

Minor, Finance

Program Requirements

Students must earn a C- grade or better in each course.

Minimum Requirements for Finance Minor: 15 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Complete the following:</td>
<td></td>
</tr>
<tr>
<td>ACCT F261X</td>
<td>Principles of Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BA F325</td>
<td>Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>ECON F201X</td>
<td>Principles of Economics I: Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Complete two from the following:</td>
<td>6</td>
</tr>
<tr>
<td>BA F423</td>
<td>Investment Analysis</td>
<td></td>
</tr>
<tr>
<td>BA F424</td>
<td>Real Estate and Alternative Investments</td>
<td></td>
</tr>
<tr>
<td>BA F454</td>
<td>Student Investment Fund</td>
<td></td>
</tr>
<tr>
<td>BA F455</td>
<td>Portfolio Management</td>
<td></td>
</tr>
<tr>
<td>BA F461</td>
<td>International Finance</td>
<td></td>
</tr>
</tbody>
</table>

Minor, General Business

Program Requirements

Students must earn a C- grade or better in each course.

Minor, Management and Organizations

Program Requirements

Students must earn a C- grade or better in each course.

Minimum Requirements for Management and Organizations Minor: 15 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Complete five from the following:</td>
<td>15</td>
</tr>
<tr>
<td>BA F307</td>
<td>Introductory Human Resources Management</td>
<td></td>
</tr>
<tr>
<td>BA F317</td>
<td>Employment Law</td>
<td></td>
</tr>
<tr>
<td>BA F325</td>
<td>Financial Management</td>
<td></td>
</tr>
<tr>
<td>BA F330</td>
<td>The Legal Environment of Business</td>
<td></td>
</tr>
<tr>
<td>BA F343</td>
<td>Principles of Marketing</td>
<td></td>
</tr>
<tr>
<td>BA F360</td>
<td>Operations Management</td>
<td></td>
</tr>
<tr>
<td>BA F390</td>
<td>Organizational Theory and Behavior</td>
<td></td>
</tr>
<tr>
<td>ECON F201X</td>
<td>Principles of Economics I: Microeconomics</td>
<td></td>
</tr>
</tbody>
</table>

Minor, Marketing

Program Requirements

Students must earn a C- grade or better in each course.

Minimum Requirements for Marketing Minor: 15 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Complete five from the following:</td>
<td>15</td>
</tr>
<tr>
<td>BA F241</td>
<td>Advertising, Sales and Promotion</td>
<td></td>
</tr>
<tr>
<td>BA F343</td>
<td>Principles of Marketing</td>
<td></td>
</tr>
<tr>
<td>BA F366</td>
<td>Consumer Behavior</td>
<td></td>
</tr>
<tr>
<td>BA F443</td>
<td>Social Media Marketing</td>
<td></td>
</tr>
<tr>
<td>BA F482</td>
<td>Sport Marketing</td>
<td></td>
</tr>
<tr>
<td>BA F490</td>
<td>Services Marketing</td>
<td></td>
</tr>
<tr>
<td>BA F491</td>
<td>Current Topics in Marketing</td>
<td></td>
</tr>
<tr>
<td>ECON F227</td>
<td>Introductory Statistics for Economics and Business</td>
<td></td>
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</tbody>
</table>

Minor, Sport Management

Program Requirements

Students must earn a C- grade or better in each course.
Minimum Requirements for Sport Management Minor: 15 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete the following:</td>
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</tr>
<tr>
<td>BA/SPRT F280</td>
<td>Sport Leadership</td>
<td>3</td>
</tr>
<tr>
<td>BA/SPRT F281X</td>
<td>Introduction to Sport Management</td>
<td>3</td>
</tr>
<tr>
<td>Complete three from the following:</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>BA/SPRT F481</td>
<td>Entertainment and Sport Event</td>
<td></td>
</tr>
<tr>
<td>Management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BA/SPRT F482</td>
<td>Sport Marketing</td>
<td></td>
</tr>
<tr>
<td>BA/SPRT F483</td>
<td>Sport Sales</td>
<td></td>
</tr>
<tr>
<td>PSY F337</td>
<td>Sport Psychology</td>
<td></td>
</tr>
</tbody>
</table>

Business, Applied

Minors

The applied business and applied accounting program offers a minor in applied business-general business that is designed to provide students the opportunity to acquire foundation-level knowledge and skills in general business. Students will complete course work in accounting principles, finance, customer service and marketing/public relations. Also offered is a minor in applied business in recreation and guiding management that is designed to provide students the opportunity to acquire foundation-level knowledge in tourism, customer service, wilderness leadership education and emergency response.

Minimum Requirements for General Business and Recreation and Guiding Management Minors: 18 credits

Programs

Minors

- Minor, General Business (p. 197)
- Minor, Recreation and Guiding Management (p. 197)

Degree

- A.A.S., Business, Applied (p. 120)

Minor, Applied Business - General Business

Students must earn a C- grade or better in each course.

Minimum Requirements for General Business Minor: 18 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete the following:</td>
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<td></td>
</tr>
<tr>
<td>ABUS F101</td>
<td>Principles of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ABUS F161</td>
<td>Personal and Business Finance</td>
<td>3</td>
</tr>
<tr>
<td>ABUS F175</td>
<td>Customer Service</td>
<td>3</td>
</tr>
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</table>

ABUS F260  | Marketing Practices                  | 3
or ABUS F263 | Public Relations                    |         |
BA F151X    | Introduction to Business            | 3

Complete one of the following:                        | 3
- ABUS F232 | Contemporary Management Issues      |         |
- ABUS F272 | Small-Business Planning             |         |
- ABUS F273 | Managing a Small Business           |         |

Note: Other courses specific to individual education and career goals may be substituted with program approval.

Minor, Applied Business — Recreation and Guiding Management

Students must earn a C- grade or better in each course.

Minimum Requirements for Recreation and Guiding Management Minor: 18 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ABUS F158</td>
<td>Introduction to Tourism</td>
<td>3</td>
</tr>
<tr>
<td>ABUS F175</td>
<td>Customer Service</td>
<td>3</td>
</tr>
<tr>
<td>NRM F161</td>
<td>Wilderness Leadership Education</td>
<td>3</td>
</tr>
<tr>
<td>Complete one of the following:</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>EMS F152</td>
<td>Emergency Trauma Training First</td>
<td></td>
</tr>
<tr>
<td>Responder</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMS F195</td>
<td>Special Topics</td>
<td></td>
</tr>
<tr>
<td>More advanced Emergency First Responder Training</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complete 6 credits from the following electives:</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>RECR electives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NRM F361</td>
<td>Advanced Wilderness Leadership</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ABUS/NRM/RECR-approved practicum</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Other courses specific to individual education and career goals may be substituted with program approval.

Chemistry

B.A., B.S. Degrees

ADMISSION TO THE B.A. PROGRAM IS CURRENTLY SUSPENDED.

Our programs prepare students for employment as research chemists in federal, state, municipal, academic or industrial laboratories, and in premedicine as laboratory technicians, industry supervisors and technical sales personnel. Our programs also provide a technical base for chemistry teachers. Graduates also find positions in the environmental sciences, oceanography and related interdisciplinary fields. Many chemistry graduates elect to pursue advanced M.S., Ph.D., pharmacology or MD degrees.

The chemistry curriculum meets the American Chemical Society standards covering the basics of general, organic, inorganic, physical and analytical chemistry, and biochemistry. Undergraduate research leading
to publications is strongly encouraged, and many of the laboratory-based courses have a research component built into them. The B.S. and B.A. programs may be completed without an optional concentration, or students can opt for an additional focus in biochemistry, environmental chemistry or forensic chemistry. The B.S. programs generally prepare students for a career in chemistry or biochemistry, or for professional school. The B.S. in chemistry is an ACS-approved degree program. The environmental chemistry concentration provides courses that help students study the chemistry of the natural environment by adding geology, biology or atmospheric courses, and it prepares students for graduate studies and/or careers in the environmental industry. The biochemistry concentration provides an enhanced curriculum in biological chemistry for students seeking advanced careers in biochemistry, medicine or health sciences. The B.A. degree provides breadth in the curriculum for study of a minor subject and requires more humanities courses. The B.A. best prepares students for careers in chemistry-related fields like environmental law, forensic science, science education, anthropology, etc. Limited teaching assistantships are often available for upper-division students, which strengthen leadership and communication skills.

The bachelor’s degrees in chemistry and concentrations in biochemistry and environmental chemistry provide excellent research opportunities and background for undergraduate students through connection to corresponding graduate programs. See graduate programs in chemistry (p. 307), biochemistry and molecular biology (p. 303), and environmental chemistry (p. 333).

The Chemistry and Biochemistry Department is housed in the Reichardt Building, where laboratories are equipped with research-grade instrumentation, providing hands-on experience to students for entry into graduate school or industry. Visit the Chemistry Department (http://www.uaf.edu/chem/) for more information.

Minimum Requirements for Chemistry Bachelor’s Degree: 120 credits

Learn more about the bachelor’s degree in chemistry (https://uaf.edu/academics/programs/bachelors/chemistry.php), including an overview of the program, career opportunities and more.

College of Natural Science and Mathematics
Department of Chemistry and Biochemistry (http://www.uaf.edu/chem/) 907-474-5510

Programs

Degrees

• B.A., Chemistry (p. 198) — Admission to this program is currently suspended.
• B.S., Chemistry (p. 199)

Minor

• Minor, Biochemistry (p. 201)
• Minor, Chemistry (p. 201)

B.A., Chemistry

Program Requirements

Admission to this program is currently suspended.

Students must earn a C- grade or better in each course.

Minimum Requirements for Chemistry Bachelor’s Degree: 120 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>General University Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (p. 154)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>General Education Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general education requirements. (p. 157)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>As part of the general education requirements, complete:</td>
<td></td>
</tr>
<tr>
<td>MATH F251X</td>
<td>Calculus I</td>
<td></td>
</tr>
<tr>
<td>PHYS F123X</td>
<td>College Physics I</td>
<td></td>
</tr>
<tr>
<td>and PHYS F124X</td>
<td>College Physics II</td>
<td></td>
</tr>
<tr>
<td>or PHYS F211X</td>
<td>General Physics I</td>
<td></td>
</tr>
<tr>
<td>and PHYS F212X</td>
<td>General Physics II</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>B.A. Degree Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the B.A. degree requirements. (p. 164)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>As part of the B.A. degree requirements, complete:</td>
<td></td>
</tr>
<tr>
<td>MATH F252X</td>
<td>Calculus II</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Chemistry Program Requirements</strong></td>
<td></td>
</tr>
<tr>
<td>CHEM F105X</td>
<td>General Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM F106X</td>
<td>General Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>CHEM F202</td>
<td>Basic Inorganic Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM F212</td>
<td>Chemical Equilibrium and Analysis</td>
<td>4</td>
</tr>
<tr>
<td>CHEM F314</td>
<td>Analytical Instrumental Laboratory</td>
<td>3</td>
</tr>
<tr>
<td>CHEM F321</td>
<td>Organic Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM F325</td>
<td>Organic Chemistry II</td>
<td>3-4</td>
</tr>
<tr>
<td>or CHEM F351</td>
<td>General Biochemistry. Metabolism</td>
<td></td>
</tr>
<tr>
<td>CHEM F331</td>
<td>Physical Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM F481</td>
<td>Seminar 1</td>
<td>1</td>
</tr>
<tr>
<td>CHEM F482</td>
<td>Seminar 2</td>
<td>2</td>
</tr>
</tbody>
</table>

University Requirement 2

Upper-division credits 39

1  Fulfills the baccalaureate capstone requirement.
2  Ensure that you have satisfied the university requirement of 39 upper-division credits, which will typically require either taking more upper-division chemistry courses or a significant number of upper-division courses in other disciplines, likely your minor.

Note: This degree does not encompass the depth required to be an American Chemistry Society-approved chemistry degree. Students taking this degree will not receive a certificate from ACS. Students intending to continue in chemistry or biochemistry careers or graduate studies should select a B.S. degree program.

OPTIONAL CONCENTRATION: FORENSIC CHEMISTRY

Minimum Requirements for Degree: 120 credits
Students must earn a C- grade or better in each course.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General University Requirements</td>
<td>Complete the general university requirements. (p. 154)</td>
<td></td>
</tr>
<tr>
<td>General Education Requirements</td>
<td>Complete the general education requirements. (p. 157)</td>
<td></td>
</tr>
</tbody>
</table>

As part of the general education requirements, complete:

- MATH F251X Calculus I
- PHYS F123X College Physics I
- PHYS F124X College Physics II
- or PHYS F211X General Physics I
- and PHYS F212X General Physics II

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.S. Degree Requirements</td>
<td>Complete the B.S. degree requirements. (p. 170)</td>
<td></td>
</tr>
</tbody>
</table>

As part of the B.S. requirements, complete:

- MATH F252X Calculus II

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemistry Program Requirements</td>
<td>Complete the chemistry program requirements as listed under chemistry B.A. degree, including:</td>
<td></td>
</tr>
<tr>
<td>CHEM F105X</td>
<td>General Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM F106X</td>
<td>General Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>CHEM F202</td>
<td>Basic Inorganic Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM F212</td>
<td>Chemical Equilibrium and Analysis</td>
<td>4</td>
</tr>
<tr>
<td>CHEM F321</td>
<td>Organic Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM F325</td>
<td>Organic Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>CHEM F331</td>
<td>Physical Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM F332</td>
<td>Physical Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>CHEM F351</td>
<td>General Biochemistry: Metabolism</td>
<td>3</td>
</tr>
<tr>
<td>CHEM F434</td>
<td>Chemistry Capstone Laboratory</td>
<td>3</td>
</tr>
<tr>
<td>CHEM F481</td>
<td>Seminar 1</td>
<td>1</td>
</tr>
<tr>
<td>CHEM F482</td>
<td>Seminar 2</td>
<td>2</td>
</tr>
</tbody>
</table>

Complete one of the following: 3-4

- CHEM F288 Introduction to Chemical Research and Undergraduate Chemistry and Biochemistry Research (2 credits each)
- CHEM F488 Undergraduate Chemistry and Biochemistry Research (3 credits) 1

- MATH F253X Calculus III | 4        |

Complete two of the following: 6

- CHEM F314 Analytical Instrumental Laboratory
- CHEM F402 Inorganic Chemistry
- CHEM F450 Information Storage and Transfer: Molecules and Pathways

1 Fulfills the baccalaureate capstone requirement.

Note: This degree does not encompass the depth required to be an American Chemistry Society-approved chemistry degree. Students taking this track will not receive a certificate from ACS. Students intending to continue in chemistry or biochemistry careers or graduate studies should select a B.S. degree program.

**Optional Concentrations:** Biochemistry, Environmental Chemistry

**BIOCHEMISTRY**

Minimum Requirements for Degree: 120 credits

Students must earn a C- grade or better in each course.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General University Requirements</td>
<td>Complete the general university requirements. (p. 154)</td>
<td></td>
</tr>
<tr>
<td>General Education Requirements</td>
<td>Complete the general education requirements. (p. 157)</td>
<td></td>
</tr>
</tbody>
</table>

As part of the general education requirements, complete:

- MATH F251X Calculus I
- PHYS F123X College Physics I
- PHYS F124X College Physics II
- or PHYS F211X General Physics I
- and PHYS F212X General Physics II
or PHYS F211X General Physics I
and PHYS F212X and General Physics II

**B.S. Degree Requirements**

Complete the B.S. degree requirements. (p. 170)

As part of the B.S. degree requirements, complete:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH F252X</td>
<td>Calculus II</td>
<td>4</td>
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</tbody>
</table>

**Chemistry Program Requirements**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BIOL F115X</td>
<td>Fundamentals of Biology I</td>
<td>4</td>
</tr>
<tr>
<td>BIOL F116X</td>
<td>Fundamentals of Biology II</td>
<td>4</td>
</tr>
<tr>
<td>CHEM F105X</td>
<td>General Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM F106X</td>
<td>General Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>CHEM F202</td>
<td>Basic Inorganic Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM F212</td>
<td>Chemical Equilibrium and Analysis</td>
<td>4</td>
</tr>
<tr>
<td>CHEM F321</td>
<td>Organic Chemistry I</td>
<td>4</td>
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<tr>
<td>CHEM F325</td>
<td>Organic Chemistry II</td>
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<td>CHEM F331</td>
<td>Physical Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM F351</td>
<td>General Biochemistry: Metabolism</td>
<td>3</td>
</tr>
<tr>
<td>CHEM F450</td>
<td>Information Storage and Transfer: Molecules and Pathways</td>
<td>3</td>
</tr>
<tr>
<td>CHEM F481</td>
<td>Seminar</td>
<td>1</td>
</tr>
<tr>
<td>CHEM F482</td>
<td>Seminar</td>
<td>2</td>
</tr>
<tr>
<td>CHEM F488</td>
<td>Undergraduate Chemistry and Biochemistry Research</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete four from the following: 1

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM F332</td>
<td>Physical Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>CHEM F434</td>
<td>Chemistry Capstone Laboratory</td>
<td>4</td>
</tr>
<tr>
<td>CHEM F314</td>
<td>Analytical Instrumental Laboratory</td>
<td>4</td>
</tr>
<tr>
<td>CHEM F402</td>
<td>Inorganic Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>CHEM F420</td>
<td>Applications of NMR Spectroscopy</td>
<td>4</td>
</tr>
<tr>
<td>MATH F253X</td>
<td>Calculus III</td>
<td>4</td>
</tr>
</tbody>
</table>

Complete 10 credits from the following: 1

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BIOL F240</td>
<td>Beginnings in Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL F260</td>
<td>Principles of Genetics</td>
<td>3</td>
</tr>
<tr>
<td>BIOL F310</td>
<td>Animal Physiology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL F342</td>
<td>Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL F402</td>
<td>Biomedical and Research Ethics</td>
<td>4</td>
</tr>
<tr>
<td>BIOL F417</td>
<td>Neurobiology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL F462</td>
<td>Infectious Diseases</td>
<td>4</td>
</tr>
<tr>
<td>BIOL F465</td>
<td>Immunology</td>
<td>4</td>
</tr>
<tr>
<td>CHEM F360</td>
<td>Cell and Molecular Biology</td>
<td>4</td>
</tr>
<tr>
<td>CHEM F455</td>
<td>Environmental Toxicology</td>
<td>4</td>
</tr>
<tr>
<td>CHEM F470</td>
<td>Cellular and Molecular Neuroscience</td>
<td>4</td>
</tr>
<tr>
<td>CHEM F474</td>
<td>Neurochemistry</td>
<td>4</td>
</tr>
</tbody>
</table>

1 Courses selected under these areas must meet baccalaureate degree requirements for 39 upper-division credits.

**Note:** This degree is intended for students interested in careers in biochemistry or pre-professional students, providing extra depth in biological sciences. The selection of optional courses will determine if the curriculum conforms to the American Chemistry Society-approved chemistry degree. Students desiring an ACS-approved chemistry degree should consult with their advisor about optional courses that will meet ACS requirements.

---

**ENVIRONMENTAL CHEMISTRY**

**Minimum Requirements for Degree: 120 credits**

Students must earn a C- grade or better in each course.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH F251X</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>PHYS F123X</td>
<td>College Physics I</td>
<td>4</td>
</tr>
<tr>
<td>PHYS F124X</td>
<td>College Physics II</td>
<td>4</td>
</tr>
<tr>
<td>or PHYS F211X</td>
<td>General Physics I</td>
<td>4</td>
</tr>
<tr>
<td>and PHYS F212X</td>
<td>General Physics II</td>
<td>4</td>
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</table>

**B.S. Degree Requirements**

Complete the B.S. degree requirements. (p. 170)

As part of the B.S. degree, complete:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH F252X</td>
<td>Calculus II</td>
<td>4</td>
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**Chemistry Program Requirements**

<table>
<thead>
<tr>
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<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CHEM F105X</td>
<td>General Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM F106X</td>
<td>General Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>CHEM F202</td>
<td>Basic Inorganic Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM F212</td>
<td>Chemical Equilibrium and Analysis</td>
<td>4</td>
</tr>
<tr>
<td>CHEM F321</td>
<td>Organic Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM F325</td>
<td>Organic Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>CHEM F331</td>
<td>Physical Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM F351</td>
<td>General Biochemistry: Metabolism</td>
<td>3</td>
</tr>
<tr>
<td>CHEM F450</td>
<td>Information Storage and Transfer: Molecules and Pathways</td>
<td>3</td>
</tr>
<tr>
<td>CHEM F481</td>
<td>Seminar</td>
<td>1</td>
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<tr>
<td>CHEM F482</td>
<td>Seminar</td>
<td>2</td>
</tr>
<tr>
<td>CHEM F488</td>
<td>Undergraduate Chemistry and Biochemistry Research</td>
<td>3</td>
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Complete four from the following: 1

<table>
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<tr>
<td>CHEM F332</td>
<td>Physical Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>CHEM F434</td>
<td>Chemistry Capstone Laboratory</td>
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<tr>
<td>CHEM F314</td>
<td>Analytical Instrumental Laboratory</td>
<td>4</td>
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<tr>
<td>CHEM F402</td>
<td>Inorganic Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>CHEM F420</td>
<td>Applications of NMR Spectroscopy</td>
<td>4</td>
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<tr>
<td>MATH F253X</td>
<td>Calculus III</td>
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Complete 10 credits from the following: 1

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<tbody>
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<td>Principles of Genetics</td>
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<td>Cellular and Molecular Neuroscience</td>
<td>4</td>
</tr>
<tr>
<td>CHEM F474</td>
<td>Neurochemistry</td>
<td>4</td>
</tr>
</tbody>
</table>

1 Courses selected under these areas must meet baccalaureate degree requirements for 39 upper-division credits.

**Note:** A course in statistics (e.g. STAT F200X, STAT F300, or GEOS F430) is suggested. The selection of optional courses will determine if the
curriculum conforms to the American Chemistry Society-approved chemistry degree. Students desiring an ACS-approved chemistry degree should consult with their advisor about optional courses that will meet ACS requirements.

REQUIREMENTS FOR CHEMISTRY TEACHERS (GRADES 7-12)

<table>
<thead>
<tr>
<th>Code</th>
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<th>Credits</th>
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<tbody>
<tr>
<td></td>
<td>Complete all the requirements of the chemistry B.A. or B.S. degree.</td>
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<tr>
<td></td>
<td>All prospective science teachers must complete the following:</td>
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<tr>
<td>PHIL F481</td>
<td>Philosophy of Science</td>
<td>3</td>
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</table>

Note: We strongly recommend that prospective secondary science teachers seek advising from the Alaska College of Education early in their undergraduate degree program so that they can be appropriately advised of the State of Alaska requirements for teacher licensure.

Minor, Biochemistry
Program Requirements

Students must earn a C- grade or better in each course.

Minimum Requirements for Biochemistry Minor: 26 credits

<table>
<thead>
<tr>
<th>Code</th>
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<tbody>
<tr>
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<td>Complete the following:</td>
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<td>CHEM F105X</td>
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</tr>
<tr>
<td>CHEM F106X</td>
<td>General Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>CHEM F202</td>
<td>Basic Inorganic Chemistry</td>
<td>3-4</td>
</tr>
<tr>
<td>CHEM F321</td>
<td>Organic Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM F325</td>
<td>Organic Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>CHEM F331</td>
<td>Physical Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM F351</td>
<td>General Biochemistry: Metabolism</td>
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</table>

Minor, Chemistry
Program Requirements

Students must earn a C- grade or better in each course.

Minimum Requirements for Chemistry Minor: 27 credits

<table>
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<tr>
<th>Code</th>
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<tbody>
<tr>
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<td>Basic Inorganic Chemistry</td>
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<tr>
<td>CHEM F321</td>
<td>Organic Chemistry I</td>
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<td>CHEM F325</td>
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</tr>
<tr>
<td>CHEM F331</td>
<td>Physical Chemistry I</td>
<td>4</td>
</tr>
</tbody>
</table>

Child Development and Family Studies

B.A. Degree

This program provides the necessary preparation for early childhood educators who wish to advance their professional knowledge and career opportunities with specialized study in administration, curriculum and teaching, family support, or infants and toddlers.

The child development and family studies program meets professional preparation standards developed by the National Association for the Education of Young Children. These six core standards and field experience expectations guide the CDFS B.A. program content and outline a set of common expectations for professional knowledge, skills and dispositions within the field of early care and education in conjunction with family studies.

The program supports students who desire a strong foundation in the field of early childhood by integrating the early childhood education A.A.S. content requirements with that of the child development and family studies B.A. Students are required to complete the program major and one of the specialized concentration areas: administration within the early childhood field, curriculum and teaching, family support, or infant and toddler. Students entering the child development and family studies B.A. program with an A.A. or A.A.S. degree in early childhood education from a regionally accredited college or university will receive 23 transfer credits toward the program major. Any additional courses will need to be evaluated on an individual basis.

Flexible course delivery fosters successful completion for early childhood professionals living in both rural and urban areas of Alaska. All program and concentration area courses must be completed with a C grade or better, with the exclusion of all clinical practice course work, which must be completed with a B grade or better. Completion of the CDFS B.A. will meet requirements for both a major and minor.

Minimum Requirements for Child Development and Family Studies Bachelor's Degree: 120 credits

Learn more about the bachelor’s degree in child development and family studies (https://uaf.edu/academics/programs/bachelors/child-development-family-studies.php), including an overview of the program, career opportunities and more.

College of Rural and Community Development
Department of Social and Human Development (http://www.uaf.edu/rural/)

Programs Degree

• B.A., Child Development and Family Studies (p. 201)

B.A., Child Development and Family Studies

Program Requirements

Students must earn a C grade or better in each course.
Minimum Requirements for Child Development and Family Studies Bachelor's Degree: 120 credits

**CONCENTRATIONS:** ADMINISTRATION WITHIN THE EARLY CHILDHOOD FIELD (P. 202), CURRICULUM AND TEACHING (P. 202), FAMILY SUPPORT (P. 202), AND INFANT AND TODDLER (P. 202)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td></td>
<td>General University Requirements</td>
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<tr>
<td></td>
<td>Complete the general university requirements. (p. 154)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>General Education Requirements</td>
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<td>Complete the general education requirements. (p. 157)</td>
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<td>B.A. Degree Requirements</td>
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<td>Complete the B.A. degree requirements. (p. 164)</td>
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<tr>
<td></td>
<td>Child Development and Family Studies Program Requirements</td>
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<tr>
<td></td>
<td><strong>ECE F101</strong> Introduction to Early Childhood Profession</td>
<td>3</td>
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<tr>
<td></td>
<td><strong>ECE F104X</strong> Child Development I: Prenatal, Infants and Toddlers</td>
<td>3</td>
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<tr>
<td></td>
<td><strong>ECE F107X</strong> Child Development II: The Preschool and Primary Years</td>
<td>3</td>
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<tr>
<td></td>
<td><strong>ECE F110</strong> Safe, Healthy Learning Environments</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>ECE F130</strong> Culture, Learning and the Young Child</td>
<td>2</td>
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<tr>
<td></td>
<td><strong>ECE F140</strong> Positive Social and Emotional Development</td>
<td>3</td>
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<tr>
<td></td>
<td><strong>ECE F210X</strong> Child Guidance</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>ECE F229</strong> Foundations in Nutrition and Physical Wellness</td>
<td>3</td>
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<tr>
<td></td>
<td><strong>ECE F305</strong> Social Emotional Development: Reflection and Practice</td>
<td>3</td>
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<tr>
<td></td>
<td><strong>ECE F342</strong> Family Relationships</td>
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<td></td>
<td><strong>ECE F350</strong> Play: Foundation for Development</td>
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<td></td>
<td><strong>ECE F445</strong> Adolescence Through the Lifespan</td>
<td>3</td>
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<td></td>
<td><strong>ECE F480</strong> Child Development and Family Studies Portfolio 1</td>
<td>1</td>
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<td><strong>Concentrations</strong></td>
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<td></td>
<td>Complete one of the following concentrations:</td>
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<tr>
<td></td>
<td>Administration within the Early Childhood Field</td>
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</tr>
<tr>
<td></td>
<td>Curriculum and Teaching</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Family Support</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Infant and Toddler</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>1</strong> Fulfills the baccalaureate capstone requirement.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>2</strong> Students completing any CFDS concentration will need an additional 3 upper-division (300-400-level) credits.</td>
<td></td>
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**Curriculum and Teaching**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td></td>
<td><strong>ECE F240</strong> Inclusion of Children with Special Needs (or department-approved course on special needs)</td>
<td>3</td>
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<tr>
<td></td>
<td><strong>ECE F310</strong> Constructivist Curriculum</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>ECE F340</strong> Financial Management of Early Childhood Programs</td>
<td>3</td>
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<td><strong>ECE F341</strong> Personnel Management of Early Childhood Programs</td>
<td>3</td>
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<td></td>
<td><strong>ECE F345</strong> Screening, Assessment and Data Collection Tools</td>
<td>3</td>
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<tr>
<td></td>
<td><strong>ECE F410</strong> Supporting Family Relationships through Mentoring</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>ECE F450</strong> Leadership and Advocacy in the Early Childhood Field</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>ECE F471</strong> Clinical Practice: Organizational Action Research 1</td>
<td>3</td>
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</table>

1 Student must earn a B grade or higher in each course.

**Family Support**

<table>
<thead>
<tr>
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<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td></td>
<td><strong>ECE F242</strong> Child and Family Ecology</td>
<td>3</td>
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<tr>
<td></td>
<td><strong>ECE F301</strong> or ECE F302 Parents as Partners in Education</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>ECE F420</strong> Developing Literacy in the Early Years</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>ECE F430</strong> Fine Arts for the Early Years</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>ECE F440</strong> Exploring Math and Science</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>ECE F472</strong> Clinical Practice: Classroom Research 1</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>ECE F473</strong> Clinical Practice: Classroom Management 1</td>
<td>3</td>
</tr>
</tbody>
</table>

1 Student must earn a B grade or higher in each course.

**Infant and Toddler**

<table>
<thead>
<tr>
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<th>Title</th>
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<tbody>
<tr>
<td></td>
<td><strong>ECE F214</strong> Infants and Toddlers</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>ECE F302</strong> Building Home Program Relationships: Prenatal to 3 Years</td>
<td>3</td>
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</tbody>
</table>

1 Student must earn a B grade or higher in each course.
CONCENTRATIONS

Administration Within the Early Childhood Field

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>ECE F240</td>
<td>Inclusion of Children with Special Needs (or department-approved course on special needs)</td>
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</tr>
<tr>
<td>ECE F310</td>
<td>Constructivist Curriculum</td>
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</tr>
<tr>
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<tr>
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<tr>
<td>ECE F345</td>
<td>Screening, Assessment and Data Collection Tools</td>
<td>3</td>
</tr>
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<td>ECE F410</td>
<td>Supporting Family Relationships through Mentoring</td>
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<td>ECE F471</td>
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Curriculum and Teaching

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<td>ECE F310</td>
<td>Constructivist Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>ECE F360</td>
<td>Assessment in Early Childhood or ECE F301 Parents as Partners in Education</td>
<td>3</td>
</tr>
<tr>
<td>ECE F420</td>
<td>Developing Literacy in the Early Years</td>
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Family Support

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE F242</td>
<td>Child and Family Ecology</td>
<td>3</td>
</tr>
<tr>
<td>ECE F301 or ECE F302</td>
<td>Parents as Partners in Education Building Home Program Relationships: Prenatal to 3 Years</td>
<td>3</td>
</tr>
<tr>
<td>ECE F306</td>
<td>Building Bridges to Support Family Mental Health</td>
<td>3</td>
</tr>
<tr>
<td>ECE F405</td>
<td>Seminar in Culture and Child-rearing Practices</td>
<td>3</td>
</tr>
<tr>
<td>ECE F410</td>
<td>Supporting Family Relationships through Mentoring</td>
<td>3</td>
</tr>
<tr>
<td>ECE F442</td>
<td>Family Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>ECE F471</td>
<td>Clinical Practice: Organizational Action Research 1</td>
<td>3</td>
</tr>
<tr>
<td>SWK F360</td>
<td>Child Abuse and Neglect</td>
<td>3</td>
</tr>
</tbody>
</table>

1 Student must earn a B grade or higher in each course.

For students entering the program with an A.A., A.S. or A.A.S. degree in early childhood education from a regionally accredited college or university.

NOTE: 23 credits will be accepted towards the program major. These credits will be applied to the following specific program requirements: ECE F101, ECE F104X, ECE F107X, ECE F110, ECE F130, ECE F140, ECE F210X and ECE F229.

Minimum Requirements for Degree: 120 credits

Students must earn a C grade or better in each course.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE F304</td>
<td>Attachment and Social Development</td>
<td>3</td>
</tr>
<tr>
<td>ECE F320</td>
<td>Environment and Curriculum for Infants and Toddlers</td>
<td>3</td>
</tr>
<tr>
<td>ECE F405</td>
<td>Seminar in Culture and Child-rearing Practices</td>
<td>3</td>
</tr>
<tr>
<td>ECE F421</td>
<td>From Babbling to Talking to Early Literacy</td>
<td>3</td>
</tr>
<tr>
<td>ECE F472</td>
<td>Clinical Practice: Classroom Research 1</td>
<td>3</td>
</tr>
<tr>
<td>ECE F473</td>
<td>Clinical Practice: Classroom Management 1</td>
<td>3</td>
</tr>
</tbody>
</table>

1 Student must earn a B grade or higher in each course.

ECE F305  Social Emotional Development: Reflection and Practice  3
ECE F342  Family Relationships  3
ECE F350  Play: Foundation for Development  3
ECE F445  Adolescence Through the Lifespan  3
ECE F480  Child Development and Family Studies Portfolio 1  3

Concentrations 1
Complete one of the following concentrations: 24
Administration within the Early Childhood Field
Curriculum and Teaching
Family Support
Infant and Toddler

1 Students completing any CFDS concentration will need an additional 3 upper-division (300-400-level) credits.
1 Student must earn a B grade or higher in each course.

**Infant and Toddler**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE F214</td>
<td>Infants and Toddlers</td>
<td>3</td>
</tr>
<tr>
<td>ECE F302</td>
<td>Building Home Program Relationships: Prenatal to 3 Years</td>
<td>3</td>
</tr>
<tr>
<td>ECE F304</td>
<td>Attachment and Social Development</td>
<td>3</td>
</tr>
<tr>
<td>ECE F320</td>
<td>Environment and Curriculum for Infants and Toddlers</td>
<td>3</td>
</tr>
<tr>
<td>ECE F405</td>
<td>Seminar in Culture and Child-rearing Practices</td>
<td>3</td>
</tr>
<tr>
<td>ECE F421</td>
<td>From Babbling to Talking to Early Literacy</td>
<td>3</td>
</tr>
<tr>
<td>ECE F472</td>
<td>Clinical Practice: Classroom Research ¹</td>
<td>3</td>
</tr>
<tr>
<td>ECE F473</td>
<td>Clinical Practice: Classroom Management ¹</td>
<td>3</td>
</tr>
</tbody>
</table>

¹ Student must earn a B grade or higher in each course.

**Civil Engineering**

**B.S. Degree**

Civil engineers plan, design and supervise the construction of public and private structures such as space-launch facilities, offshore structures, bridges, buildings, tunnels, highways, transit systems, dams, airports, irrigation projects, and water treatment and distribution facilities.

Civil engineers use sophisticated technology and employ computer-aided engineering during design, construction, project scheduling and cost control project phases. They are creative problem solvers involved in community development and the challenges of pollution, deteriorating infrastructure, traffic congestion, energy needs, floods, earthquakes and urban planning.

The civil engineering program at UAF has been accredited since 1940 and is currently accredited by the Engineering Accreditation Commission of ABET. All engineering programs in the department give special attention to problems of Northern regions.

The program educational objectives of the B.S. in civil engineering program are:

1. Graduates earnestly pursue professional careers in civil engineering and related fields.
2. Graduates innovatively meet engineering challenges, including those of cold climates and remote locations, working independently and in teams.
3. Graduates actively serve the professional community, pursue licensure and lifelong learning, and demonstrate high ethical standards.

In addition to general civil engineering courses, the department offers specialties in transportation, geotechnical, structures, water resources, hydrology and environmental studies. These courses emphasize principles of analysis, planning and engineering design in northern regions.

Minimum Requirements for Civil Engineering Bachelor’s Degree: 134 credits

Learn more about the bachelor’s degree in civil engineering (https://uaf.edu/academics/programs/bachelors/civil-engineering.php), including an overview of the program, career opportunities and more.

College of Engineering and Mines
Department of Civil and Environmental Engineering (http://cem.uaf.edu/cee/)

**907-474-7241**

**Programs**

**Degree**

- B.S., Civil Engineering (p. 204)

**B.S., Civil Engineering**

**Program Requirements**

Students must earn a C- grade or better in each course.

**Minimum Requirements for Civil Engineering B.S. Degree: 134 credits**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td></td>
<td><strong>General University Requirements</strong></td>
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<tr>
<td></td>
<td>Complete the general university requirements. (p. 154)</td>
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<td></td>
<td><strong>General Education Requirements</strong></td>
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<td>Complete the general education requirements. (p. 157)</td>
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<td>As part of the general education requirements, complete:</td>
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<tr>
<td></td>
<td>CHEM F105X General Chemistry I</td>
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<tr>
<td></td>
<td>CHEM F106X General Chemistry II</td>
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<td></td>
<td>MATH F251X Calculus I</td>
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<tr>
<td></td>
<td><strong>B.S. Degree Requirements</strong></td>
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<tr>
<td></td>
<td>Complete the B.S. degree requirements. (p. 170)</td>
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<tr>
<td></td>
<td>As part of the B.S. degree requirements, complete:</td>
<td></td>
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<tr>
<td></td>
<td>MATH F252X Calculus II</td>
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<tr>
<td></td>
<td>PHYS F211X General Physics I</td>
<td></td>
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<tr>
<td></td>
<td>PHYS F212X General Physics II</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Civil Engineering Program Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CE F112 Elementary Surveying</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>CE F302 Fundamentals of Transportation Engineering</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>CE F326 Introduction to Geotechnical Engineering</td>
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<tr>
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<td>CE F331 Structural Analysis</td>
<td>3</td>
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<tr>
<td></td>
<td>CE F334 Properties of Materials</td>
<td>3</td>
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<td>CE F341 Environmental Engineering</td>
<td>4</td>
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<tr>
<td></td>
<td>CE F344 Water Resources Engineering</td>
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<tr>
<td></td>
<td>CE F432 Steel Design</td>
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<tr>
<td></td>
<td>CE F437 Design of Engineered Systems I ¹</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>CE F438 Design of Engineered Systems II ¹</td>
<td>3</td>
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<tr>
<td></td>
<td>CE F470 Civil Engineering Internship</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>or CE F471 Field Practicum</td>
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<tr>
<td></td>
<td>ES F101 Introduction to Engineering</td>
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<tr>
<td></td>
<td>ES F201 Computer Techniques</td>
<td>3</td>
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<tr>
<td></td>
<td>ES F209 Statics</td>
<td>3</td>
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<tr>
<td></td>
<td>ES F210 Dynamics</td>
<td>3</td>
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</table>
**ES F301** Engineering Analysis 3
**ES F331** Mechanics of Materials 3
**ES F341** Fluid Mechanics 4
**ESM F422** Engineering Decisions 3
**ESM F450** Economic Analysis and Operations 3
**GE F261** General Geology for Engineers 3
**MATH F253X** Calculus III 4
**MATH F302** Differential Equations 3
**Technical Electives** 2
Field of environmental engineering, construction or transportation 3
CE, ENVE, ESM courses or approved technical courses, 6
**ES F307** Elements of Electrical Engineering 3
or **ES F346** Introduction to Thermodynamics 3

**Fundamentals of Engineering (FE) Examination**
Complete the Fundamentals of Engineering (FE) examination administered by the State of Alaska.

1. Fulfils the baccalaureate capstone requirement.
2. Up to two graduate-level courses may be used towards graduation. Graduate-level courses must be approved by student's advisor, and the student must be within two semesters of graduation and have at least a 3.0 GPA to take graduate-level courses.

**Note:** The ability to use computers for normal class work is expected in all engineering classes above the F100 level.

## Communication

### B.A. Degree

The communication program teaches students to communicate effectively and ethically in a rapidly changing world characterized by diversity in gender, culture and belief. It offers a comprehensive background in the discipline in preparation for employment or further education. Students majoring in other disciplines find communication electives valuable additions to their programs.

The program is both theoretical and pragmatic, designed to prepare students for the professional workplace or for advanced study.

Communication courses are available online and in the classroom.

The minor in dispute resolution gives students a theoretical background for and practice of alternative dispute resolution. The curriculum supports the developing restorative justice emphasis of the B.A. in justice, and is applicable to business administration, social work, psychology and counseling contexts.

Minimum Requirements for Communication Bachelor's Degree: 120 credits

Learn more about the bachelor's degree in communication [here](https://uaf.edu/academics/programs/bachelors/communication.php), including an overview of the program, career opportunities and more.

College of Liberal Arts
Department of Communication and Journalism [here](http://www.uaf.edu/cojo/)
907-474-6591

### Programs

#### Degree

- B.A., Communication (p. 205)

#### Minors

- Minor, Communication (p. 206)
- Minor, Alternative Dispute Resolution (p. 206)

### B.A., Communication

#### Program Requirements

Students must earn a C- grade or better in each course.

### Minimum Requirements for Communication Bachelors Degree: 120 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COJO F101X</td>
<td>Media and Culture</td>
<td>3</td>
</tr>
<tr>
<td>COJO F202</td>
<td>News Writing for the Media</td>
<td>3</td>
</tr>
<tr>
<td>COJO F330</td>
<td>Intercultural Communication</td>
<td>3</td>
</tr>
<tr>
<td>COJO F380</td>
<td>Women, Minorities and the Media</td>
<td>3</td>
</tr>
<tr>
<td>COJO F401</td>
<td>Communication Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>COJO F425</td>
<td>Communication Theory</td>
<td>3</td>
</tr>
<tr>
<td>COJO F482</td>
<td>Capstone Seminar in Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete four from the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COJO F220</td>
<td>Professional Interviewing</td>
<td></td>
</tr>
<tr>
<td>COJO F300X</td>
<td>Communicating Ethics</td>
<td>2</td>
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<tr>
<td>COJO F320</td>
<td>Communication and Language</td>
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<tr>
<td>COJO F321</td>
<td>Nonverbal Communication</td>
<td></td>
</tr>
<tr>
<td>COJO F322</td>
<td>Communication in Interpersonal Relationships</td>
<td></td>
</tr>
<tr>
<td>COJO F331</td>
<td>Advanced Group Communication</td>
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</tr>
<tr>
<td>COJO F335</td>
<td>Organizational Communication</td>
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<tr>
<td>COJO F352</td>
<td>Family Communication</td>
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<tr>
<td>COJO F353</td>
<td>Conflict, Mediation and Communication</td>
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</tr>
<tr>
<td>COJO F400</td>
<td>Professional Internship</td>
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<tr>
<td>COJO F431</td>
<td>Public Relations Campaigns</td>
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<tr>
<td>COJO F432</td>
<td>Professional Public Speaking</td>
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</tr>
<tr>
<td>COJO F441</td>
<td>Persuasion</td>
<td></td>
</tr>
<tr>
<td>COJO F462</td>
<td>Communication in Health Contexts</td>
<td></td>
</tr>
<tr>
<td>COJO F475</td>
<td>Applied Communication in Training and Development</td>
<td></td>
</tr>
</tbody>
</table>

Learn more about the bachelor's degree in communication [here](https://uaf.edu/academics/programs/bachelors/communication.php), including an overview of the program, career opportunities and more.

College of Liberal Arts
Department of Communication and Journalism [here](http://www.uaf.edu/cojo/)
907-474-6591
With approval of advisor, an appropriate-level special topics or independent studies course in communication may be used to meet this requirement.

2. If taken to meet the degree-specific requirement for ethics, then the student must take an additional F300- or F400-level communication course to complete the major.

3. Fulfills the baccalaureate capstone requirement.

Minor, Alternative Dispute Resolution

Program Requirements

Students must earn a C- grade or better in each course.

Minimum Requirements for Alternative Dispute Resolution Minor: 15 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COJO F201</td>
<td>Dispute Resolution and Restorative Practices</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Complete four from the following:</td>
<td>12</td>
</tr>
<tr>
<td>COJO F302</td>
<td>Dispute Systems Design</td>
<td></td>
</tr>
<tr>
<td>COJO F353</td>
<td>Conflict, Mediation and Communication</td>
<td></td>
</tr>
<tr>
<td>COJO F451</td>
<td>Cross-cultural Conflict Analysis and Intervention</td>
<td></td>
</tr>
<tr>
<td>COJO F461</td>
<td>Law and Science of Arbitration</td>
<td></td>
</tr>
<tr>
<td>COJO F465</td>
<td>Clinic in Mediation, Conferencing and Circle Practices</td>
<td></td>
</tr>
</tbody>
</table>

Note: F400-level courses require junior standing or instructor permission

Minor, Communication

Program Requirements

Students must earn a C- grade or better in each course.

Minimum Requirements for Communication Minor: 15 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Complete the following:</td>
<td></td>
</tr>
<tr>
<td>COJO F101X</td>
<td>Media and Culture</td>
<td>3</td>
</tr>
<tr>
<td>COJO F330</td>
<td>Intercultural Communication</td>
<td>3</td>
</tr>
<tr>
<td>or COJO F380</td>
<td>Women, Minorities and the Media</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Communication electives at the F300 level or above</td>
<td>9</td>
</tr>
</tbody>
</table>

Computer Engineering

B.S. Degree

The mission of the Electrical and Computer Engineering Department is to offer the highest quality, contemporary education in electrical and computer engineering at the undergraduate and graduate levels and to perform research appropriate to the technical needs of Alaska, the nation and the world.

Computer engineering is a relatively new discipline. It lies somewhere in the middle between computer science, which covers theory, algorithms, software, networking, graphics and computer architecture, and electrical engineering, which covers microelectronics, electrical circuits and devices, networks, communications systems, computer architecture, hardware design and systems analysis. Computer engineers design, analyze, produce, operate, program and maintain computer and digital systems. They apply theories and principles of science and mathematics to the design of hardware, software, networks and processes to solve technical problems.

Over the past decade, computers have evolved into complex systems that may consist of single machines or many interconnected computers linked by a data network. In one form or another, computers now control most telephone and communications systems, process control and manufacturing automation systems, management information systems, household appliances, automobiles, transportation systems and medical instrumentation. Computers also form the core of the Internet. To work in the constantly evolving discipline of computer systems engineering, the computer engineer must acquire competence in both digital computer hardware and the fundamentals of software engineering.

Careers in computer engineering are as wide and varied as computer systems themselves. Systems range from embedded computer systems found in consumer products or medical devices; control systems for automobiles, aircraft and trains; to more wide-ranging applications in telecommunications, financial transactions and information systems.

The faculty of the Electrical and Computer Engineering Department provide a positive learning environment that enables students to pursue their goals in an innovative program that is rigorous and challenging, open and supportive. The B.S. program develops practical skills by emphasizing hands-on experience in the design, implementation, and validation of electrical systems in an environment that fosters and encourages innovation and creativity. This approach builds the foundation for the program’s educational objectives:

1. Breadth: Graduates will use their broad education emphasizing computer engineering as the foundation for productive careers in the public or private sectors, graduate education, and lifelong learning.
2. Depth: Graduates will apply their understanding of the fundamental knowledge prerequisite for the practice of and/or advanced study in computer engineering, including its scientific principles, rigorous analysis and creative design.
3. Professional skills: Graduates will apply skills in clear communication, responsible teamwork, professional attitudes and ethics needed to succeed in the complex modern work environment.

These objectives serve the department, college and university missions by ensuring that all graduates of the program have received a high quality, contemporary education that prepares them for a rewarding career in computer engineering.

Candidates for the B.S. degree are required to take the state of Alaska Fundamentals of Engineering Examination in their general field.

For more information about the computer engineering program's mission, goals and educational objectives, visit the College of Engineering and Mines accreditation website (http://cem.uaf.edu/ece/abet/).

Minimum Requirements for Computer Engineering B.S. Degree: 134 credits

Learn more about the bachelor’s degree in computer engineering (https://uaf.edu/academics/programs/bachelors/computer-engineering.php), including an overview of the program, career opportunities and more.

College of Engineering and Mines
B.S., Computer Engineering

Program Requirements

Students must earn a C- grade or better in each course.

Minimum Requirements for Computer Engineering B.S.: 134 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
</table>
| General University Requirements
| Complete the general university requirements. (p. 154) |
| General Education Requirements
| Complete the general education requirements. (p. 157) |
| As part of the general education requirements, complete: |
| CHEM F105X and CHEM F106X | General Chemistry I and General Chemistry II |
| or PHYS F213X | Elementary Modern Physics |
| MATH F251X | Calculus I |
| B.S. Degree Requirements
| Complete the B.S. degree requirements. (p. 170) |
| As part of the B.S. degree requirements, complete: |
| MATH F252X | Calculus II |
| PHYS F211X and PHYS F212X | General Physics I and General Physics II |
| Computer Engineering Program Requirements
| CS F201 | Computer Science I | 3 |
| CS F202 | Computer Science II | 3 |
| CS F301 | Assembly Language Programming | 3 |
| CS F311 | Data Structures and Algorithms | 3 |
| CS F321 | Operating Systems | 3 |
| CS F331 | Programming Languages | 3 |
| EE F102 | Introduction to Electrical and Computer Engineering | 3 |
| EE F203 | Electric Circuits | 4 |
| EE F204 | Electrical Engineering Fundamentals II | 4 |
| EE F333 | Electronic Devices | 4 |
| EE F311 | Engineering Electromagnetics I | 3 |
| EE F331 | High-frequency Lab | 1 |
| EE F343 | Digital Systems Analysis and Design | 4 |
| EE F353 | Circuit Theory | 3 |
| EE F354 | Engineering Signal Analysis | 3 |
| EE F443 | Computer Engineering Analysis and Design | 4 |
| EE F444 | Embedded Systems Design | 4 |
| EE F463 | Communication Networks | 3 |
| ES F101 | Introduction to Engineering | 3 |

Electives

Approved Electives

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<tbody>
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<td>ESM F450</td>
<td>Economic Analysis and Operations</td>
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</tr>
<tr>
<td>MATH F253X</td>
<td>Calculus III</td>
<td>4</td>
</tr>
<tr>
<td>MATH F302</td>
<td>Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>MATH F307</td>
<td>Discrete Mathematics</td>
<td>3</td>
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</table>

Recommended Electives:

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<tbody>
<tr>
<td>CS F361</td>
<td>Systems Security and Administration</td>
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<tr>
<td>CS F411</td>
<td>Analysis of Algorithms</td>
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<tr>
<td>CS F421</td>
<td>Distributed Operating Systems</td>
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<td>CS F471</td>
<td>Senior Capstone I</td>
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<tr>
<td>CS F472</td>
<td>Senior Capstone II</td>
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<tr>
<td>CS F484</td>
<td>Computer Graphics Fundamentals</td>
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<tr>
<td>CS F485</td>
<td>Computer Graphics Rendering</td>
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<td>EE F334</td>
<td>Electronic Circuit Design</td>
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<td>EE F451</td>
<td>Digital Signal Processing</td>
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<td>EE F461</td>
<td>Communication Systems</td>
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<td>EE F464</td>
<td>Communication Networks Design</td>
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<td>EE F471</td>
<td>Automatic Control</td>
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Approved Engineering Science Electives

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<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ES F208</td>
<td>Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>ES F331</td>
<td>Mechanics of Materials</td>
<td></td>
</tr>
<tr>
<td>ES F341</td>
<td>Fluid Mechanics</td>
<td></td>
</tr>
<tr>
<td>ES F346</td>
<td>Introduction to Thermodynamics</td>
<td></td>
</tr>
<tr>
<td>ME F334</td>
<td>Elements of Material Science/Engineering</td>
<td></td>
</tr>
</tbody>
</table>

Fundamentals of Engineering (FE) Examination

Complete the Fundamentals of Engineering (FE) examination administered by the State of Alaska.

1 Fulfills the baccalaureate capstone requirement.

Computer Information Technology Specialist

Minor Only

The information technology specialist minor is designed to provide students the opportunity to acquire foundation-level knowledge and skills in computer and information technology support.

This minor is a great choice for Bachelor of Arts degree students who need to satisfy their minor requirement or Associate of Arts students who want to explore information technology as an area of interest.

Community and Technical College
Department of Informational Technology (http://www.ctc.uaf.edu/its/)
907-455-2800

Programs

Minor

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor, Computer Information Technology Specialist</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Minor, Computer Information Technology Specialist

Students must earn a C- grade or better in each course.

Minimum Requirements for Computer Information Technology Specialist Minor: 15 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CITS F204</td>
<td>Introduction to Computer Networks</td>
<td>3</td>
</tr>
<tr>
<td>CITS F212</td>
<td>Server Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>CITS F261</td>
<td>Computer and Network Security</td>
<td>3</td>
</tr>
<tr>
<td>Two CITS electives</td>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>

Computer Science

B.S., B.S./M.S. Degrees

Computer science is the study of information handling and its application to the problems of the world. Computing is widely used in support of science, engineering, business, law, medicine, education and the social sciences, and offers abundant employment opportunities.

The B.S. and M.S. degrees follow the recommendations of the Association for Computing Machinery and the Institute for Electrical and Electronic Engineers. The B.S. degree is accredited by the Computing Accreditation Commission of ABET.

The computer science undergraduate program introduces the fundamentals of computer programming, hardware and theory. It emphasizes the application of general principles to real-world problems. Mathematics and engineering play critical roles in the core. A solid background in fundamentals enables graduates to understand the uses of today’s computers and to participate in future developments.

Minimum Requirements for Computer Sciences Degrees: B.S.: 120 credits; B.S./M.S.: 141 credits

Learn more about the bachelor’s degree in computer science (https://uaf.edu/academics/programs/bachelors/computer-science.php), including an overview of the program, career opportunities and more.

Learn more about the bachelor’s/master’s degree in computer science (https://uaf.edu/academics/programs/bachelors/computer-science-bs-m.s.php), including an overview of the program, career opportunities and more.

College of Engineering and Mines
Department of Computer Science (http://www.cs.uaf.edu)
907-474-2777

Programs

Degree

• B.S., Computer Science (p. 208)
• B.S./M.S., Computer Science (p. 209)

Minor

• Minor, Computer Science (p. 209)

B.S., Computer Science

Program Requirements

Students must earn a C- grade or better in each course.

Minimum Requirements for Computer Science B.S.: 120 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General University Requirements</td>
<td>Complete the general university requirements. (p. 154)</td>
<td></td>
</tr>
<tr>
<td>General Education Requirements</td>
<td>Complete the general education requirements. (p. 157)</td>
<td></td>
</tr>
<tr>
<td>Any approved ethics course</td>
<td>Include one of the following:</td>
<td></td>
</tr>
<tr>
<td>MATH F251X</td>
<td>Calculus I</td>
<td></td>
</tr>
<tr>
<td>MATH F252X</td>
<td>Calculus II</td>
<td></td>
</tr>
<tr>
<td>MATH F253X</td>
<td>Calculus III</td>
<td></td>
</tr>
<tr>
<td>MATH F307</td>
<td>Discrete Mathematics</td>
<td></td>
</tr>
<tr>
<td>PHYS F211X</td>
<td>General Physics I</td>
<td></td>
</tr>
<tr>
<td>PHYS F212X</td>
<td>General Physics II</td>
<td></td>
</tr>
<tr>
<td>STAT F300</td>
<td>Statistics</td>
<td></td>
</tr>
</tbody>
</table>

B.S. Degree Requirements

Complete the B.S. degree requirements. (p. 170)

As part of the B.S. degree requirements, complete:

MATH F251X | Calculus I                      |         |
MATH F252X | Calculus II                     |         |
MATH F253X | Calculus III                    |         |
MATH F307 | Discrete Mathematics            |         |
PHYS F211X | General Physics I               |         |
PHYS F212X | General Physics II              |         |
STAT F300 | Statistics                      |         |

Any approved ethics course

Learn more about the bachelor’s degree in computer science (https://uaf.edu/academics/programs/bachelors/computer-science.php), including an overview of the program, career opportunities and more.

Learn more about the bachelor’s/master’s degree in computer science (https://uaf.edu/academics/programs/bachelors/computer-science-bs-m.s.php), including an overview of the program, career opportunities and more.

College of Engineering and Mines
Department of Computer Science (http://www.cs.uaf.edu)
907-474-2777
Electives in computer science at the F300 or F400 level or approved electives, such as:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EE F443</td>
<td>Computer Engineering Analysis and Design</td>
<td>9</td>
</tr>
</tbody>
</table>

1 Fulfills the baccalaureate capstone requirement.

**B.S./M.S., Computer Science**

**Admission Requirements**

Complete the following admission requirements:

1. CS major (junior preferred) or senior standing.
2. GPA 3.25 or above based on a minimum of 24 credits. Students must maintain a cumulative GPA of 3.0 to remain in the program.
3. Submit a study goal statement.
4. Submit a UAF graduate application for admission.

**Program Requirements**

Students must earn a C- grade or better in each course.

**Minimum Requirements for Computer Science B.S./M.S.: 141 credits**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH F251X</td>
<td>Calculus I</td>
<td></td>
</tr>
</tbody>
</table>

**B.S. Degree Requirements**

Complete the B.S. degree requirements. (p. 170)

As part of the B.S. degree requirements, complete:

- MATH F252X Calculus II
- PHYS F211X General Physics I
- PHYS F212X General Physics II

Any approved ethics course

**B.S. Computer Science Program Requirements**

Complete the following:

- CS F201 Computer Science I 3
- CS F202 Computer Science II 3
- CS F301 Assembly Language Programming 3
- CS F311 Data Structures and Algorithms 3
- CS F321 Operating Systems 3
- CS F331 Programming Languages 3
- CS F371 Computer Ethics and Technical Communication 3
- CS F372 Software Construction 3
- CS F411 Analysis of Algorithms 3
- CS F441 System Architecture 3
- or EE F443 Computer Engineering Analysis and Design 3
- CS F471 Senior Capstone I 3
- CS F472 Senior Capstone II 3
- EE F341 Digital and Computer Analysis and Design 4
- MATH F253X Calculus III 4
- MATH elective at the F300/F400 level 3
- MATH F307 Discrete Mathematics 3
- STAT F300 Statistics 3

**M.S. Computer Science Program Requirements**

- CS F600 Professional Software Development 4
- CS F601 Algorithms, Architecture and Languages 4
- CS F690 Graduate Seminar and Project 3
- CS F691 Graduate Seminar and Project 3
- CS upper-division/graduate level electives. 3
- CS graduate level electives 6

**Exam**

Pass a written comprehensive exam in computer science theory and practice.

1 Fulfills the baccalaureate capstone requirement.

**Note:** For the master's degree, a student must earn an A or B grade in F400-level courses. A grade of C will be accepted in F600-level courses provided a B grade point average is maintained.

**Note:** This degree program must be completed in seven years or the student will be disqualified from the program. If a student is disqualified, a B.S. in computer science will be awarded if:

1. completed in 10 years, and
2. the student meets the B.S. degree requirements for computer science.

**Minor, Computer Science**

**Program Requirements**

Students must earn a C- grade or better in each course.

**Minimum Requirements for Computer Science Minor: 15 credits**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS F201</td>
<td>Computer Science I</td>
<td>3</td>
</tr>
<tr>
<td>CS F202</td>
<td>Computer Science II</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete three from the following electives:

- F300 or F400 level from CS 3
- EE F341 Digital and Computer Analysis and Design 3
- MATH F426 Numerical Analysis 3
- MATH F460 Mathematical Modeling 3

Electives approved by a computer science advisor

**Note:** Courses completed to satisfy this minor can be used to simultaneously satisfy other major or general distribution requirements.
Digital Journalism

B.A. Degree

The digital journalism program equips students with the broad skill set valued in the nation’s newsrooms and other communication fields.

In addition to the solid academic foundation delivered in the classroom, students receive practical experience working in media on and off campus. On campus, these include KUAC, a public television and radio station; KSUA, the student-owned FM radio station; and the Polaris News, the student-run online news site. Students complete their required professional media internships at a variety of radio and television stations, newspapers and other media-related businesses and organizations in and out of Alaska.

The department runs several laboratory facilities, including a digital newsroom and photography lab, dedicated audio and video bays, an advanced video editing/digital printing lab, two wet darkrooms and a photography studio.

Minimum Requirements for Digital Journalism Bachelor’s Degree: 120 credits

Learn more about the bachelor’s degree in digital journalism (https://uaf.edu/academics/programs/bachelors/digital-journalism.php), including an overview of the program, career opportunities and more.

College of Liberal Arts
Department of Communication and Journalism (http://www.uaf.edu/cojo/)
907-474-7761

Programs

Degree

• B.A., Digital Journalism (p. 210)

Minor

• Minor, Digital Journalism (p. 211)

B.A., Digital Journalism

Program Requirements

Students must earn a C- grade or better in each course.

Minimum Requirements for Digital Journalism B.A.: 120 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>General University Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (p. 154)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>General Education Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general education requirements. (p. 157)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>B.A. Degree Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the B.A. degree requirements. (p. 164)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>As part of the B.A. degree requirements, complete:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>HIST F132X History of the U.S.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Digital Journalism Program Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>COJO F101X Media and Culture</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>COJO F202 News Writing for the Media</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>COJO F204/ART F284 Basic Digital Photography</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>COJO F251 Introduction to Video Production</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>COJO F310 Reporting</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>COJO/WGS F380 Women, Minorities and the Media</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>COJO F400 Professional Internship</td>
<td>1-3</td>
</tr>
<tr>
<td></td>
<td>COJO F413 Mass Media Law and Regulation</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>COJO F431 Public Relations Campaigns</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>COJO F454 Newscast</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>COJO F490 Online Publication: ‘Extreme Alaska’</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Complete one of the following:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COJO F215 Radio Production</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COJO F223 Editing for Journalists</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COJO/FLPA F480 Documentary Filmmaking</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete one course from the following list of approved journalism electives:</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>COJO F215 Radio Production</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COJO F220 Professional Interviewing</td>
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<tr>
<td></td>
<td>COJO F240 Foreign Corresponding</td>
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<tr>
<td></td>
<td>COJO F250 Website Design</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COJO/FLPA F280 Video Storytelling</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COJO F300X Communicating Ethics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COJO F311 Magazine Article Writing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COJO F323 Editing for Journalists</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COJO F390 Social Media Toolkit</td>
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</tr>
<tr>
<td></td>
<td>COJO F402/ART F483 Advanced Photography</td>
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</tr>
<tr>
<td></td>
<td>COJO F404 Photojournalism</td>
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<tr>
<td></td>
<td>COJO F405/ART F465 Advanced Photography Seminar</td>
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<tr>
<td></td>
<td>COJO F407/ART F487 Digital Darkroom</td>
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<tr>
<td></td>
<td>COJO F411 Writing for a Living</td>
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<tr>
<td></td>
<td>COJO F444 Investigative Reporting</td>
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<tr>
<td></td>
<td>COJO F452 Radio and Television News Writing</td>
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</tr>
<tr>
<td></td>
<td>COJO F453 Television News Reporting</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COJO F454 Newscast</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COJO F456 Science Writing for the General Public</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COJO F480 Documentary Filmmaking</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COJO/ART F484 Multimedia Theory and Practice</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COJO F493 Special Topics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COJO F497 Independent Study</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COJO F498 Undergraduate Research</td>
<td></td>
</tr>
</tbody>
</table>
|          | Complete credits outside of journalism | 80 | 1

1 To ensure the journalist a broad liberal arts education, 80 credits must be taken from outside of journalism-specific areas, 65 of which should be from any of these departments: ACNS, ALST, ANL, ANS, ANTH, ART, ATM, BIOL, CHEM, ECON, ENGL, ENVE, ESK, FISH, FL, FLPA, FREN, GEOG, GEOS, GER, HIST, HONR, HUM, JPN, JUST, LING, LS, MATH, MSL, MUS, NRM, PHIL, PHYS, PS, PSY, RUSS, SOC, SPAN, STAT and WGS.

2 Fulfills the baccalaureate capstone requirement.
Minor, Digital Journalism

Program Requirements

Students must earn a C- grade or better in each course.

Minimum Requirements for Digital Journalism Minor: 15 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COJO F101X</td>
<td>Media and Culture</td>
<td>3</td>
</tr>
<tr>
<td>COJO F202</td>
<td>News Writing for the Media</td>
<td>3</td>
</tr>
</tbody>
</table>

Approved Communication and Journalism (COJO) electives

Minimum Requirements for Early Childhood Education Minor: 18 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE F101</td>
<td>Introduction to Early Childhood Profession</td>
<td>3</td>
</tr>
<tr>
<td>ECE F104X</td>
<td>Child Development I: Prenatal, Infants and Toddlers</td>
<td>3</td>
</tr>
<tr>
<td>or ECE F107X</td>
<td>Child Development II: The Preschool and Primary Years</td>
<td></td>
</tr>
</tbody>
</table>

Select 12 ECE credits

1 Including a minimum of 6 upper-division ECE credits and excluding special topics (ECE F-93) and current issue (ECE F249) courses.

Early Childhood Education

Overview

Minor

The minor in early childhood education provides an opportunity for you to develop a foundation of knowledge and skills through course work that includes an introduction to the early childhood profession and development of the child in their prenatal, infant and toddler years or in their preschool and primary years. Working with an early childhood program advisor, you will select the classes that are best for your interests.

This minor is a great choice for Bachelor of Arts degree students who need to satisfy their minor requirement, or for Associate of Arts students who want to explore early childhood education as an area of interest.

Minimum Requirements for Early Childhood Education Minor: 18 credits

Community and Technical College

Early Childhood Education (https://www.ctc.uaf.edu/programs/early-childhood-education/)

907-455-2800

Programs

Minor

- Minor, Early Childhood Education (p. 211)

Degree

- A.A.S., Early Childhood Education (p. 129)

Certificate

- Certificate, Early Childhood Education (p. 130)

Earth Science

B.A. Degree

ADMISSION TO THIS PROGRAM IS CURRENTLY SUSPENDED.

This program provides broad training in various aspects of earth systems science. Three concentrations are available:

- earth systems science
- geological hazards and mitigation
- secondary education

The concentrations allow students to focus on different interests and career paths during their junior and senior years but offer considerable flexibility during the freshman and sophomore years.

The earth science concentration offers students a sound background in a broad spectrum of geoscience disciplines, with an emphasis on the interaction between earth systems. The geological hazards and mitigation concentration is designed for students who wish to pursue careers in communicating science, hazards analysis or emergency management-related natural disasters. The secondary education concentration is designed for students who plan to teach earth science in a secondary school in Alaska. Requirements for certified teachers have been built into this concentration in consultation with the School of Education. Students choosing this concentration should consult with both the Department of Geosciences and the School of Education for advising.

Minimum Requirements for Earth Science Bachelor’s Degree: 120-130 credits

Learn more about the bachelor’s degree in earth science (https://uaf.edu/academics/programs/bachelors/earth-science.php), including an overview of the program, career opportunities and more.

College of Natural Science and Mathematics

Department of Geosciences (http://www.uaf.edu/geology/)

907-474-7565
Programs
Degree

• B.A., Earth Science (p. 212) — Admission to this program is currently suspended.

B.A., Earth Science

Program Requirements
Admission to this program is currently suspended.

Minimum Requirements for Earth Science

B.A.: 120-130 credits

CONCENTRATIONS: EARTH SYSTEMS SCIENCE (P. 212), GEOLOGICAL HAZARDS AND MITIGATION (P. 212), SECONDARY EDUCATION (P. 213)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General University Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (p. 154)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>General Education Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general education requirements. (p. 157)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>As part of the general education requirements, complete:</td>
<td></td>
</tr>
<tr>
<td>CHEM F103X and CHEM F104X</td>
<td>Introduction to General Chemistry and Introduction to Organic Chemistry and Biochemistry</td>
<td></td>
</tr>
<tr>
<td>CHEM F105X and CHEM F106X</td>
<td>General Chemistry I and General Chemistry II</td>
<td></td>
</tr>
<tr>
<td>PHYS F123X and PHYS F124X</td>
<td>College Physics I and College Physics II</td>
<td></td>
</tr>
<tr>
<td></td>
<td>B.A. Degree Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the B.A. degree requirements. (p. 164)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>As part of the B.A. degree requirements, complete:</td>
<td></td>
</tr>
<tr>
<td>NRM F303X</td>
<td>Environmental Ethics and Actions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Earth Science Program Requirements</td>
<td></td>
</tr>
<tr>
<td>GEOS F101X</td>
<td>The Dynamic Earth</td>
<td>4</td>
</tr>
<tr>
<td>GEOS F112X</td>
<td>The History of Earth and Life</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Concentrations</td>
<td>34-52</td>
</tr>
<tr>
<td></td>
<td>Complete one of the following concentrations:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Earth Systems Science</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Geological Hazards and Mitigation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Secondary Education</td>
<td></td>
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<tr>
<td></td>
<td>CONCENTRATIONS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Earth Systems Science</td>
<td></td>
</tr>
<tr>
<td>Code</td>
<td>Title</td>
<td>Credits</td>
</tr>
<tr>
<td>---------</td>
<td>----------------------------------------------------</td>
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<tr>
<td>GEOS F304</td>
<td>Geomorphology</td>
<td>3</td>
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<tr>
<td>GEOS F315</td>
<td>Paleobiology and Paleontology</td>
<td>4</td>
</tr>
<tr>
<td>GEOG F483</td>
<td>Research Design, Writing and Presentation Methods</td>
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<tr>
<td></td>
<td>Complete one course from each of the following areas:</td>
<td>9-12</td>
</tr>
<tr>
<td></td>
<td>Earth Systems</td>
<td></td>
</tr>
<tr>
<td>GEOG F101X</td>
<td>Expedition Earth: Introduction to Geography</td>
<td></td>
</tr>
<tr>
<td>MSL F111X</td>
<td>The Oceans</td>
<td></td>
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<tr>
<td>NRM F101</td>
<td>Natural Resources Conservation and Policy</td>
<td></td>
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<tr>
<td>PHYS F165X</td>
<td>Introduction to Astronomy</td>
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<td></td>
<td>Earth Materials</td>
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<tr>
<td>GEOS F213</td>
<td>Mineralogy</td>
<td></td>
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<tr>
<td>GEOS F262</td>
<td>Rocks and Minerals</td>
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<tr>
<td></td>
<td>Geospatial Sciences</td>
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<tr>
<td>GEOS F338</td>
<td>Introduction to Geographic Information Systems</td>
<td></td>
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<tr>
<td>GEOS F339</td>
<td>Change Detection in Arctic Systems</td>
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<td>Complete one course from any three of the following areas:</td>
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<tr>
<td></td>
<td>Climatic Impacts</td>
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<tr>
<td>ATM F101X</td>
<td>Weather and Climate of Alaska</td>
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<td>GEOS F460</td>
<td>The Dynamic Alaska Coastline</td>
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<td></td>
<td>Natural Resources</td>
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<tr>
<td>GEOS F302</td>
<td>Geography of Alaska</td>
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<tr>
<td>GEOS F332</td>
<td>Ore Deposits and Structure</td>
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<td>Geoscience</td>
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<td>GEOS F309</td>
<td>Tectonics</td>
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<tr>
<td>GEOS F322</td>
<td>Stratigraphy and Sedimentation</td>
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<td></td>
<td>Geobiology</td>
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<tr>
<td>GEOS F485</td>
<td>Mass Extinctions, Neocatastrophism and the History of Life</td>
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<tr>
<td>GEOS F486</td>
<td>Vertebrate Paleontology</td>
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<tr>
<td></td>
<td>9 additional credits at the F300 level or above</td>
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<td>Fulfills the baccalaureate capstone requirement.</td>
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<td>2</td>
<td>These credits should have an emphasis in geology, geography, biology, natural resources management or other Earth science-related field as approved by the undergraduate advisor.</td>
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<tr>
<td></td>
<td>Geological Hazards and Mitigation</td>
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<td>Code</td>
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<td>Credits</td>
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<tr>
<td>SOC F101X</td>
<td>Introduction to Sociology</td>
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<td>As part of the B.A. requirements, complete:</td>
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<td>COJO F300X</td>
<td>Communicating Ethics</td>
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<td>STAT F200X</td>
<td>Elementary Statistics</td>
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<td>Program Requirements</td>
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<tr>
<td>ED F486</td>
<td>Media Literacy</td>
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<tr>
<td>ENGL F314</td>
<td>Technical Writing</td>
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<td>GEOG F483</td>
<td>Research Design, Writing and Presentation Methods</td>
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<td>GEOS F304</td>
<td>Geomorphology</td>
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<td>GEOS F380</td>
<td>Geological Hazards</td>
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<td>GEOS F406</td>
<td>Volcanology</td>
<td>3</td>
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<tr>
<td>HSEM F301</td>
<td>Principles of Emergency Management and Homeland Security</td>
<td></td>
</tr>
<tr>
<td>PHYS F165X</td>
<td>Introduction to Astronomy</td>
<td>4</td>
</tr>
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<td></td>
<td>Complete one course from each of the following areas:</td>
<td>9-12</td>
</tr>
</tbody>
</table>
Secondary Education

Complete one course from each of the following areas:

- PHYS F165X
- GEOG F483
- MSL F111X
- GEOS F315
- GEOS F262
- ATM F101X
- GEOG F460

Program Requirements

Complete two courses from one of the following specialized areas:

- **Mitigation**
  - HSEM F412 Emergency Planning and Preparedness
  - HSEM F423 Disaster Response Operations and Management
  - HSEM F434 All-hazards Risk Analysis
- **Communications**
  - COJO F335 Organizational Communication
  - COJO F353 Conflict, Mediation and Communication
  - COJO F441 Persuasion

Complete one course from each of the following areas:

- **Earth Materials**
  - GEOS F213 Mineralogy
  - GEOS F262 Rocks and Minerals
- **Geospatial Sciences**
  - GEOG F338 Introduction to Geographic Information Systems
  - GEOG F339 Change Detection in Arctic Systems
- **Climatic Impacts**
  - ATM F101X Weather and Climate of Alaska
  - GEOG F460 The Dynamic Alaska Coastline

As part of the general education requirements, complete:

- **Mitigation**
  - HSEM F412 Emergency Planning and Preparedness
- **Communications**
  - COJO F335 Organizational Communication

**Note**: Fulfills the baccalaureate capstone requirement.

Secondary Education

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>GEOG F101X</td>
<td>Expedition Earth: Introduction to Geography</td>
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<tr>
<td>PSY F101X</td>
<td>Introduction to Psychology</td>
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</table>

Program Requirements

- ATM F101X Weather and Climate of Alaska 4
- GEOS F262 Rocks and Minerals 3
- GEOS F315 Paleobiology and Paleontology 4
- MSL F111X The Oceans 4
- GEOG F483 Research Design, Writing and Presentation Methods 3
- PHYS F165X Introduction to Astronomy 4

Complete one course from each of the following areas: 12-14

- **Landform Analysis**
  - GEOG F111X Earth and Environment: Elements of Physical Geography
- **Geospatial Sciences**
  - GEOG F338 Introduction to Geographic Information Systems
  - GEOG F339 Change Detection in Arctic Systems

**Note**: Fulfills the baccalaureate capstone requirement.

**Education**

**B.A. Degree and Postbaccalaureate Licensure**

The University of Alaska Fairbanks complies fully with the institutional reporting requirements mandated in Title II of the Higher Education Act Amendments of 1998. Please contact the School of Education for a copy of the report.

The School of Education prepares students from across Alaska, as well as from other states and nations, to work in urban and rural Alaska and to work with multicultural and minority – especially Alaska Native – students. To fulfill our commitment to enhancing educational opportunities for the state’s rural and Native populations, faculty actively and knowledgeably utilize educational technology to deliver all School of Education programs to students in most areas of the state.

The School of Education offers bachelor’s degrees in elementary education and secondary education; and postbaccalaureate programs are offered in elementary education, secondary education, counseling and special education.

The School of Education is approved by the Alaska Department of Education and Early Development to recommend its students for Alaska licensure as elementary and secondary teachers, school counselors and special education teachers. Courses are available on-site and by distance delivery through the Kuskokwim, Bristol Bay, Interior Alaska, Chukchi and Northwest campuses, as well as on the Fairbanks campus. Faculty research in cross-cultural studies, curriculum and instruction, language and literacy, and small rural schools supports the mission of the School of Education.

Priority for enrollment in field-based courses is given to rural students formally admitted to degree and licensure programs. All inquiries should be addressed to one of the rural campuses or to the School of Education's Certification and Advising Office.

Candidates for all School of Education programs are required to have a laptop computer and iPad. Laptops may be of any type but must have capacities that enable candidates to meet School of Education requirements. Laptop and iPad requirements and purchase information have capacities that enable candidates to meet School of Education requirements. Laptops may be of any type but must have capacities that enable candidates to meet School of Education requirements. Laptop and iPad requirements and purchase information can be viewed by accessing the “Technology Requirement” link at the website of the School of Education (http://www.uaf.edu/soe/). If you have questions about how a laptop or iPad purchase will fit in with your current financial aid package, please contact the UAF Financial Aid Office.

**Licensure Information**

UAF education programs are approved by the Alaska State Board of Education and accredited by the National Council for the Accreditation of
Teacher Education. For information about these programs, contact one of the UAF School of Education academic advisors.

Certification is awarded by the Alaska Department of Education and Early Development in Juneau. Therefore, students must meet all requirements specified by EED at the time of their application for the teaching certificate. In addition to completing an approved teacher training program, the State of Alaska requires that all initial applicants provide evidence of passing scores on one of various state identified skills tests; the UAF School of Education requires Praxis I or Praxis Core Academic Skills for Educators (ASE) for this purpose. For additional information, see the Alaska State Department of Education and Early Development website.

Minimum Requirements for Education Bachelor’s Degree: 121-128 credits
Education Postbaccalaureate Secondary Licensure (Grades 7-12): 31 credits
Music Education: 33 credits (See the B.M. in Music Education (p. 264)).
Art K-12 Licensure: 34 credits

Learn more about the postbaccalaureate certificate in education (https://uaf.edu/academics/programs/post-bachelor-certification/postbaccalaureate-certificate.php), including an overview of the program, career opportunities and more.

School of Education (http://www.uaf.edu/soe/)
907-474-7341

Programs
Degrees
- B.A. Degree, Elementary Education (K-8) (p. 214)
- B.A. Degree, Secondary Education (7-12) (p. 216)

Minors
- Minor, General Education (p. 218)
- Minor, Elementary Education (p. 218)
- Minor, Secondary Education (p. 218)

Licensure
- K-12 Art Licensure (p. 217)
- Secondary Postbaccalaureate Licensure Program (p. 219)

Certificate
- Local Knowledge Educator (p. 143)

B.A., Elementary Education (K-8)

B.A. Degree

Students in the Bachelor of Arts in elementary education degree program are assessed relative to national and state standards, including National Council for Accreditation of Teacher Education standards, the Alaska Teacher Standards, the Alaska Student Content and Performance Standards, and the Alaska Standards for Culturally Responsive Schools. Course work provides students on the Fairbanks campus and in remote sites with the experience necessary to be eligible for an elementary teacher license. The integrated major/minor degree requirements are designed to prepare students to meet standards that recognize, respect and build upon Alaska’s cultural, linguistic and geographic factors.

Completion of the B.A. in education will meet the requirements for a major and minor.

The interdisciplinary degree requirements provide breadth in the content areas necessary for successful teaching at an elementary level. They provide depth in the opportunities to connect theory and practice in real classroom, school, and community contexts. Students completing this degree benefit from collaborative efforts with academic departments across campus and from School of Education partnerships with a wide range of Alaska’s rural and urban schools and districts.

The degree has four central components:

1. subject area course work in the designated UAF general education requirements;
2. additional subject area course work in those areas important for successful teaching at an elementary level;
3. an integrated set of education courses and fieldwork in schools and the community to provide the foundation for a successful professional internship year; and
4. a capstone year-long school internship with a mentor teacher, with concurrent enrollment in professional course work that focuses on the integration and application of theory, research and practice in real school environments. Students follow the calendar of the school or district in which they complete their internship. Candidates serving internships are charged a $400 fee per semester.

Degree and program requirements include multiple types of ongoing assessments throughout the programs. There is a strong emphasis on performance assessment and portfolio development and evaluation relative to national and state standards.

Minimum Requirements for Education Bachelor's Degree: 121-128 credits

Learn more about the bachelor’s degree in elementary education (K-8) (https://uaf.edu/academics/programs/bachelors/elementary-education.php), including an overview of the program, career opportunities and more.

School of Education (http://www.uaf.edu/soe/)
907-474-7341

Admission Requirements

B.A. in elementary education students should enroll in the School of Education’s recommended sequence of core and major course requirements during their first two years. By following the sequence recommended in Transition One on the Criteria for Advancement through Bachelor of Arts in Elementary Education Degree (https://drive.google.com/file/d/1PS-WfnVQsm_6cjNqDRmZB9pgdNPizT6Ji/view?usp=sharing), students will be knowledgeable about their status relative to their progress toward meeting the criteria for admission to the professional internship year. To make certain that students will be able to receive the support necessary to prepare for the internship year, all B.A. in elementary education students are required to submit Praxis I or Praxis ASE scores (passing scores are not required until applying to the internship year) to the School of Education prior to enrolling in EDSE F316, and Praxis II (test 5018) test scores must be submitted with the intern year admission packet. Prior to enrollment in professional-year courses and prior to receiving an internship placement in a classroom, all students must submit the materials listed below and meet admission requirements as described in Transition Two. Declaring a
B.A. major in elementary education does not guarantee admission to the professional internship year.

Internships begin in August or September on the date when teachers return to school (this varies across districts). Since internship placements are arranged with principals and mentor teachers in the spring, all materials necessary for determining admission to the School of Education must be submitted by Feb. 1. Faculty in the School of Education consider multiple criteria in making valid and reliable judgments about each applicant’s knowledge, skills and professional characteristics prior to approval for the yearlong internship in a classroom with elementary school-age children.

Students must submit the following information to the School of Education by Feb. 1:

1. Copies of transcripts from all institutions attended. Evidence of plan of completion of all B.A. degree in elementary education degree courses by Aug. 1 (except for those required in the professional internship year), with a minimum of a 2.75 overall GPA, a 2.0 in each major academic area, and a C or better in all required courses. Students with less than a 2.75 overall GPA may be considered for conditional admission in special circumstances.

2. Alaska Passing scores from the Praxis I or Praxis Core ASE exams in reading, writing and math, and Praxis II Elementary Content Knowledge exam (test 5018). In extenuating circumstances, applicants may be allowed to begin the internship year without yet having an Alaska qualifying Praxis II score. Students cannot complete program requirement without receiving an Alaska qualifying Praxis II score. See course description for ED F468.

3. Two letters of reference that address qualifications and potential as a teacher.

4. A current and complete resume/curriculum vitae.

5. Two one-page essays on topics determined by the School of Education.

6. Completed Elementary Teacher Education Academic Analysis and Life/Work Form to provide information on breadth and depth of prior course work and/or documented life experiences relative to ten Alaska Student Content Standard areas.

7. A one-to-two-page autobiographical sketch (appropriate for presenting to prospective principals and mentor teachers).

8. Extemporaneous writing sample. Contact the School of Education advising office for date, time and location information.


10. Evidence of ability to work collaboratively and respectfully in cross-cultural contexts.

11. Completed Alaska Student Teacher Authorization Packet, including fingerprint cards and criminal background check. Forms are available from the School of Education.

12. Complete an interview, when requested.

Note: Students are admitted for a specific academic year and must reapply if they do not enroll in the year in which they were reviewed.

Program Requirements

Students must earn a C grade or better in each course.

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Minimum Requirements for Elementary Education (K-8) B.A.: 121 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td><strong>General University Requirements</strong></td>
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<tr>
<td>Complete the general university requirements. (p. 154)</td>
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<tr>
<td><strong>General Education Requirements</strong></td>
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<tr>
<td>Complete the general education requirements. (p. 157)</td>
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<tr>
<td>As part of the general education requirements, complete:</td>
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<tr>
<td>ART/MUS/FLPA F200X or ANS/FLPA F161X or ANS F202X or ANS/MUS/ACNS F223X</td>
<td>Explorations in Art</td>
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<tr>
<td>BIOL F100X or BIOL F103X or BIOL F104X</td>
<td>Human Biology</td>
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<tr>
<td>CHEM F100X or CHEM F103X or PHYS F102X or PHYS F115X</td>
<td>Chemistry in Complex Systems</td>
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<td>ENGL F270X</td>
<td>Introduction to Creative Writing</td>
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<td>GEOG F101X</td>
<td>Expedition Earth: Introduction to Geography</td>
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<td>HIST F100X or HIST F102X</td>
<td>Modern World History, Western Civilization Since 1500</td>
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<tr>
<td>MATH F122X or MATH F151X</td>
<td>College Algebra for Calculus</td>
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<td>H or SS Elective: Complete one of the following: 1</td>
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<tr>
<td>ANL F255X</td>
<td>Introduction to Alaska Native Languages</td>
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<td>ANTH F100X</td>
<td>Individual, Society and Culture</td>
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<td>HIST F132X</td>
<td>History of the U.S.</td>
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<td>SOC F101X</td>
<td>Introduction to Sociology</td>
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<td><strong>B.A. Degree and Elementary Education (K-8) Program Requirements</strong></td>
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<tr>
<td>Complete the B.A. degree requirements. (p. 164)</td>
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<tr>
<td><strong>Mathematics Requirements</strong></td>
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<tr>
<td>MATH F211</td>
<td>Mathematics for Elementary School Teachers</td>
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<td>MATH F212</td>
<td>Mathematics for Elementary School Teachers II</td>
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<tr>
<td>ATM F101X</td>
<td>Weather and Climate of Alaska</td>
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<td>GEOG F111X</td>
<td>Earth and Environment: Elements of Physical Geography</td>
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<td>GEOS F101X</td>
<td>The Dynamic Earth</td>
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<tr>
<td>GEOS F120X</td>
<td>Glaciers, Earthquakes and Volcanoes: Past, Present and Future</td>
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</tbody>
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Complete one of the following:  
- ANS F242X Indigenous Cultures of Alaska  
- ANTH F242 Native Cultures of Alaska  
- HIST F115 Alaska, Land and Its People  
- HIST F461 History of Alaska

Humanities Requirements
- ED/LING F100 Language, Education, Linguistics  
- ED F486 Media Literacy  
- ED F487 Nature of Language

Education Requirements
- ED F110 Becoming a Teacher in the 21st Century  
- ED F201 Introduction to Education  
- ED F204 Literature for Children  
- ED F329 Teaching with Technology  
- ED F330 Assessment of Learning  
- ED F344 Foundations of Literacy Development  
- EDSE F316 Introduction to Special Education for Elementary Classroom Teachers  
- EDSE F320 Adapting and Accommodating Instructions for Students with Disabilities

Complete one of the following:  
- ED/ANS F420 Alaska Native Education  
- ED/ANS F461 Native Ways of Knowing

Professional Internship Year with Integrated Course Work
First Semester
- ED F411 Reading, Writing, Language Arts: Methods and Curriculum Development  
- ED F412 Integrated Social Studies and Language Arts: Methods and Curriculum Development  
- ED F466 Internship and Collaborative Student Teaching  
- ED F467 Classroom Management Communication and Collaboration I  
- ED F478 Mathematics Methods and Curriculum Development  
- ED F479 Science Methods and Curriculum Development

Second Semester
- ED F414 Art, Music and Drama in Elementary Classrooms  
- ED F417 Physical Activity and Health Education for Elementary Teachers  
- ED F468 Internship and Student Teaching  
- ED F469 Classroom Management Communication and Collaboration II  
- ED F476 Assessment of Literacy Development

1. Students should consult UAF SOE advisor.  
2. Fulfills the baccalaureate capstone requirement.

B.A., Secondary Education (7-12)  
B.A. Degree

The requirements for a secondary school teaching certificate include completion of both a teaching major in an academic subject area appropriate to the secondary school and the professional education sequence. The degree is awarded as a B.A. with a double major. Upon declaration of a major in secondary education, students are assigned an advisor in the Education Department to plan the completion of the teaching major and the education sequence of courses.

The teaching major must be in an academic subject area approved for a State of Alaska secondary school teaching certificate and available as a B.A. degree: art, biology, chemistry, earth science, English, French, German, history, mathematics, political science or Spanish.

Learn more about the bachelor's degree in secondary education (https://uaf.edu/academics/programs/bachelors/secondary-education.php), including an overview of the program, career opportunities and more.

Admission Requirements

Submit your undergraduate application electronically (https://uaf.edu/admissions/apply/) to the UAF Office of Admissions. A professional student teaching internship application has to be turned in to the secondary program before student teaching (last year before graduation).

Professional Student Teaching Internship:

In the last year before graduation, student teaching internships begin in August or January on the date when teachers return to school (this varies across districts). Since internship placements are arranged with principals and mentor teachers in the spring, all materials necessary for determining admission to the internship should be submitted by March 1.

Faculty in the School of Education consider multiple criteria in making valid and reliable judgments about each applicant's knowledge, skills, and professional characteristics prior to approval for the year-long internship in a classroom with secondary children. A criminal background check is necessary to work in schools. Declaring a B.A. major in secondary education does not guarantee admission to the professional internship year.

Students must submit the following information before the student teaching internship year to the School of Education by March 1:

1. Copies of transcripts from all institutions attended. Evidence of plan of completion of all B.A. degree in secondary education degree courses and completion of the majority of the content major requirements by Aug. 1st (except for those required in the professional internship year), with a minimum of a 2.75 overall GPA.
2. Three current letters of reference that address qualifications and potential as a teacher.
3. A personal statement of 500 words addressing motivation to enter the teaching profession, self-assessed qualifications to teach, and experiences which have prepared the candidate for teaching.
4. Passing scores on an Alaska Department of Education and Early Development (http://education.alaska.gov/TeacherCertification/praxis.html)-approved basic competency exam (BCE)
5. Passing scores on the Praxis II test for each content area the applicant expects to teach. The scores must meet the score set by the State of Alaska (https://education.alaska.gov/TeacherCertification/). World language applicants may need an oral proficiency test as required by EED.

Other Information:

Secondary faculty as part of the admission process will interview applicants.

**Program Requirements**
Students must earn a C grade or better in each course.

**Minimum Requirements for Secondary Education (7-12) Degree: 121 credits**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tr>
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<td><strong>B.A. Degree and Major Requirements</strong></td>
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<td><strong>Secondary Education (7-12) Requirements</strong></td>
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<tr>
<td>EDSC F110</td>
<td>Becoming a Middle/High School Teacher</td>
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<td>EDSC F407</td>
<td>Developing Literacy in the Content Areas</td>
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<tr>
<td>EDSC F458</td>
<td>Classroom Organization and Management</td>
<td>3</td>
</tr>
<tr>
<td>EDSC F205</td>
<td>Introduction to Secondary Education or EDSC F415 Foundations of Modern Educational Practice</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete one of the following:</td>
<td>3</td>
</tr>
<tr>
<td>EDSE F316</td>
<td>Introduction to Special Education for Elementary Classroom Teachers</td>
<td></td>
</tr>
<tr>
<td>EDSC F414</td>
<td>Learning, Development and Special Needs Instruction</td>
<td></td>
</tr>
<tr>
<td>EDSE F422</td>
<td>Curriculum, Management and Strategies II: High Incidence</td>
<td></td>
</tr>
<tr>
<td>EDSE F482</td>
<td>Inclusive Classrooms for All Children</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Professional Internship Year with Integrated Coursework</strong></td>
<td></td>
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<td>Complete one of the following:</td>
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<tr>
<td>EDSC F432</td>
<td>English/Language Arts Secondary Instruction and Assessment</td>
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</tr>
<tr>
<td>EDSC F433</td>
<td>Mathematics Secondary Instruction and Assessment</td>
<td></td>
</tr>
<tr>
<td>EDSC F434</td>
<td>Science Secondary Instruction and Assessment</td>
<td></td>
</tr>
<tr>
<td>EDSC F435</td>
<td>Social Studies Secondary Instruction and Assessment</td>
<td></td>
</tr>
<tr>
<td>EDSC F436</td>
<td>Art Secondary Instruction and Assessment</td>
<td></td>
</tr>
<tr>
<td>EDSC F437</td>
<td>World Language Secondary Instruction and Assessment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the following:</td>
<td></td>
</tr>
<tr>
<td>EDSC F442</td>
<td>Technology Applications in Education I</td>
<td>1</td>
</tr>
</tbody>
</table>

**Content Area**

Complete requirements for a major in content area: art, biology, chemistry, Earth science, English, foreign language (French, German or Spanish), history, mathematics or political science.

**Capstone Requirement**

Complete baccalaureate capstone requirement as determined by the program.

1. Candidates must take the section or course that corresponds with their major teaching content area.
2. Fulfills the baccalaureate capstone requirement.

**K-12 Art Licensure Program**

Offered only in Fairbanks and Anchorage, this is an intensive, classroom-based K-12 art licensure program (34 credits) that prepares postbaccalaureate candidates for K-12 teaching positions. The program is specifically designed to prepare candidates to teach in multicultural settings in Alaska. The content will specifically identify and discuss current issues of art education and applying Alaska Content/Performance Standards and Frameworks as well as National Standards for Art Education.

At the end of the program, if students have successfully met all of the program requirements, they will be eligible to apply for an Alaska initial teaching license and will receive certificates of completion from UAF.

Candidates who enter the K-12 art licensure program are required to have use of/own a laptop computer before they begin their internship in the fall semester of their professional year.

**Admission Requirements**

**Admission Process and Requirements**

Applicants will follow the admission process and requirements listed in the catalog for the Secondary Postbaccalaureate Licensure Program (p. 219), with the exception that applicants must have a bachelor’s degree in art from an accredited university or college.

**Program Requirements**

Students must earn a C grade or better in each course.

**Minimum Requirements for K-12 Art Licensure: 34 credits**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED F449</td>
<td>Elementary Art Methods</td>
<td>3</td>
</tr>
<tr>
<td>ED F452/ART F458</td>
<td>Elementary Internship</td>
<td>3</td>
</tr>
<tr>
<td>ED F453/ART F459</td>
<td>Secondary Internship</td>
<td>6</td>
</tr>
<tr>
<td>EDSC F414</td>
<td>Learning, Development and Special Needs Instruction</td>
<td>3</td>
</tr>
</tbody>
</table>
or EDSE F422 Curriculum, Management and Strategies II: High Incidence
or EDSE F482 Inclusive Classrooms for All Children
or EDSE F316 Introduction to Special Education for Elementary Classroom Teachers

EDSC F415 Foundations of Modern Educational Practice
or EDSC F205 Introduction to Secondary Education

EDSC F436 Art Secondary Instruction and Assessment

EDSC F442 Technology Applications in Education I
EDSC F443 Technology Application in Education II
EDSC F457 Multicultural Education and School-community Relations

EDSC F458 Classroom Organization and Management

PSY F240 Psychology of Development
or PSY F245 Child Development

### Minor, Elementary Education

**Program Requirements**

The elementary education minor is designed for students who intend to pursue a license in elementary education. Students who complete ED F110, ED F201, ED F330, ED F344 and EDSE F316 with grades of C or better will be allowed to substitute this sequence for ED F624, ED F625 and ED F626 in the postbaccalaureate elementary (K-8) licensure program at UAF.

Students must earn a C- or better in each course.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED F110</td>
<td>Becoming a Teacher in the 21st Century</td>
<td>1</td>
</tr>
<tr>
<td>ED F201</td>
<td>Introduction to Education</td>
<td>3</td>
</tr>
<tr>
<td>ED F206</td>
<td>Core Practices in Place and Arts-Based Teaching</td>
<td>3</td>
</tr>
<tr>
<td>ED F330</td>
<td>Assessment of Learning</td>
<td>3</td>
</tr>
<tr>
<td>ED F344</td>
<td>Foundations of Literacy Development</td>
<td>3</td>
</tr>
<tr>
<td>ED F420</td>
<td>Alaska Native Education</td>
<td>3</td>
</tr>
<tr>
<td>or ED F461</td>
<td>Native Ways of Knowing</td>
<td>3</td>
</tr>
<tr>
<td>EDSE F316</td>
<td>Introduction to Special Education for Elementary Classroom Teachers</td>
<td>3</td>
</tr>
</tbody>
</table>

**Minimum Requirements for Elementary Education Minor: 19 credits**

Complete the following:

1. Practicum may be required in each education course.

### Minor, Secondary Education

**Program Requirements**

The secondary education minor is designed for students who are interested in pursuing careers as middle school and/or high school (grades 7-12) teachers.

Students must earn a C grade or better in each course.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED F110</td>
<td>Becoming a Middle/High School Teacher</td>
<td>1</td>
</tr>
<tr>
<td>ED F205</td>
<td>Introduction to Secondary Education</td>
<td>3</td>
</tr>
<tr>
<td>or EDSC F415</td>
<td>Foundations of Modern Educational Practice</td>
<td>3</td>
</tr>
<tr>
<td>EDSC F407</td>
<td>Developing Literacy in the Content Areas</td>
<td>3</td>
</tr>
<tr>
<td>EDSC F458</td>
<td>Classroom Organization and Management</td>
<td>3</td>
</tr>
<tr>
<td>PSY F240</td>
<td>Psychology of Development</td>
<td>3</td>
</tr>
<tr>
<td>or ED/PSY F245</td>
<td>Child Development</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete one of the following:

1. Practicum may be required in each education course.

### Minor, General Education

**Program Requirements**

The general education minor is designed for any student interested in education issues who does not intend to pursue a license in elementary or secondary education.

Students must earn a C grade or better in each course.  

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED F110</td>
<td>Becoming a Teacher in the 21st Century</td>
<td>1</td>
</tr>
<tr>
<td>ED F201</td>
<td>Introduction to Education</td>
<td>3</td>
</tr>
<tr>
<td>ED/ANS F420</td>
<td>Alaska Native Education</td>
<td>3</td>
</tr>
<tr>
<td>or ED F461</td>
<td>Native Ways of Knowing</td>
<td>3</td>
</tr>
<tr>
<td>PSY F240</td>
<td>Psychology of Development</td>
<td>3</td>
</tr>
<tr>
<td>or ED/PSY F245</td>
<td>Child Development</td>
<td>3</td>
</tr>
</tbody>
</table>

Approved education electives  

1. Practicum may be required in each education course.

2. Contact the School of Education's Certification and Advising Office for a list of approved elective courses.
Secondary Postbaccalaureate Licensure Program

Program delivery is offered in Fairbanks and in areas served by the College of Rural and Community Development campuses and their service areas with the exception of the Aleutian-Pribilof Center.

This is an intensive, classroom-based secondary licensure program (31 credits) that prepares postbaccalaureate candidates for secondary (grades 7-12) teaching positions. The program is specifically designed to prepare candidates to teach in multicultural settings in Alaska. Content that addresses multicultural issues in general, and Alaska rural issues in particular, is contained specifically in EDSC F457, and is a fundamental component of the course work within the program. When funding is available, all secondary Fairbanks candidates participate in a rural practicum.

Student outcomes for the program are based on the Standards for Alaska's Teachers website (https://education.alaska.gov/standards/).

Students must apply to graduate with a certificate of completion through the Office of the Registrar’s Graduation Services. At the end of the program, if students have successfully met all of the program requirements, they will be eligible to apply for an Alaska initial teaching license.

Candidates who enter the secondary postbaccalaureate licensure program are required to have use of/own a laptop computer before they begin their internships in the fall semester of their professional year. Candidates are expected to be proficient in Windows Office software including, but not limited to, word processing, spreadsheets and presentation software.

Program Options

FAST-TRACK OPTION
The fast-track option is an intensive three-semester program that allows candidates (one-year unpaid interns) to complete the secondary licensure program as full-time students in 12 months. Candidates take classes “summer-fall-spring.” The academic year-long internship is completed during the fall and spring semesters.

TWO-YEAR OPTION
The two-year option allows candidates (two-year unpaid interns) to complete the secondary postbaccalaureate licensure program as part-time students over a period of 18-24 months. The last semester of the program requires full-time placement at a public school site.

TEACHING-WHILE-TRAINING OPTION
The teaching-while-training option is for candidates (teacher interns) who have secured a teaching position with an Alaska school district. Generally, this option is available only to those candidates in areas of teacher shortage. Candidates complete the secondary postbaccalaureate licensure program over a period of 24 months.

PROFESSIONAL FIELD EXPERIENCES
The secondary postbaccalaureate licensure program includes a comprehensive internship experience in an educational setting. Internship placements are arranged and supervised by university faculty in partnership with the principal and staff from the public school. University course work and classroom practice are closely linked and communication about performance in both the course work and classroom practice is shared among the partners. Internships follow the K-12 school year calendar and not the university academic year calendar.

Performance in the internship must meet stated competencies and individual outcomes. Performance evaluations determine the candidate’s progress toward meeting the State of Alaska Standards for Alaska’s Teacher and the International Society for Technology in Education’s National Education Technology Standards and Performance Indicators for All Teachers and performance guidelines of Specialty Performance Organizations.

It is expected that candidates will demonstrate appropriate professional characteristics with respect to their actions, attitudes and performance. Teacher candidates are required to adhere to the characteristics of professionalism as published in the Secondary Postbaccalaureate Licensure Handbook and to abide by the State of Alaska Code of Ethics of the Education Profession. Unacceptable academic performance, an unprofessional attitude, unsatisfactory field reports, violation of professional ethics or other factors may result in removal from the field experience and denial of the Institutional Recommendation for teacher certification.

Internship placements are made in partnership with participating school districts, which may request additional information and/or preparation from candidates according to the district’s established policies and practices. Because cooperating districts also determine the number of placements available for candidates, placement may become competitive if the number of applicants exceeds the number of spaces. Districts also reserve the right to refuse or terminate placements when candidates do not meet a minimum standard of performance. Thus, while the university will make every effort to identify appropriate field experiences, admission to the secondary postbaccalaureate licensure program does not guarantee an internship placement.

Admission Requirements

Admission Process and Requirements
Admission to the secondary postbaccalaureate licensure program includes meeting requirements of the UAF undergraduate admission process and of the School of Education.

Submit the following information electronically (https://uaf.edu/admissions/apply/) to the UAF Office of Admissions:

1. UAF undergraduate application and application fee.
2. Official transcript of bachelor’s degree from an accredited institution, minimum GPA of 2.75. Applicants who have attended more than one university should include transcripts from all universities.
3. A personal statement of 500 words explaining your motivation for becoming a teacher. Describe how your academic qualifications and work experiences have prepared you for a career in teaching. Elaborate on your personal strengths, including your ability to work collaboratively with others. Describe your experiences with adolescents in instructional and supervisory capacities. Explain why you believe you can help young people of all cultures be successful in school.
4. A vitae/resume.
5. Three current letters of reference that address qualifications and potential as a teacher.

Submit the following information to the School of Education:
Postbaccalaureate Licensure: 31 credits

Minimum Requirements for Secondary Program Requirements

professionals in the schools.

Candidates preparing to teach.

The secondary postbaccalaureate program is a selective teacher education program. Multiple measures are used to assess personal characteristics, communication skills and qualifications of the candidates preparing to teach.

APPLICATION REVIEW PROCESS

Applications for admission are due March 1 (summer or fall admission) and Oct. 15 (spring admission). Reviews for admission will be ongoing thereafter.

The secondary postbaccalaureate program is a selective teacher education program. Multiple measures are used to assess personal characteristics, communication skills and qualifications of the candidates preparing to teach.

UPON ACCEPTANCE TO THE PROGRAM

The School of Education has a systematic procedure for monitoring the progress of education students from admission through completion of their professional education program to determine if they should continue the program, be advanced to the secondary teaching internship and eventually be recommended for a teaching license. In assessing candidate progress in knowledge, skills and disposition, faculty will review grades, observations, faculty recommendations, demonstrated academic competence and recommendations from the appropriate professionals in the schools.

Program Requirements

Minimum Requirements for Secondary Postbaccalaureate Licensure: 31 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDSC F407</td>
<td>Developing Literacy in the Content Areas</td>
<td>3</td>
</tr>
<tr>
<td>EDSC F415</td>
<td>Foundations of Modern Educational Practice</td>
<td>3</td>
</tr>
</tbody>
</table>

EDSC F442 Technology Applications in Education I 1
EDSC F443 Technology Application in Education II 2
EDSC F457 Multicultural Education and School-community Relations 4
EDSC F458 Classroom Organization and Management 3
EDSC F471 Secondary Teaching: School Internship I and Seminar 3
EDSC F472 Secondary Teaching: School Internship II and Seminar 6-9

Complete one from the following: 3
EDSE F316 Introduction to Special Education for Elementary Classroom Teachers
EDSC F414 Learning, Development and Special Needs Instruction
EDSE F422 Curriculum, Management and Strategies II: High Incidence
EDSE F482 Inclusive Classrooms for All Children

Complete one from the following: 1
EDSC F432 English/Language Arts Secondary Instruction and Assessment
EDSC F433 Mathematics Secondary Instruction and Assessment
EDSC F434 Science Secondary Instruction and Assessment
EDSC F435 Social Studies Secondary Instruction and Assessment
EDSC F436 Art Secondary Instruction and Assessment
EDSC F437 World Language Secondary Instruction and Assessment

1 Candidates must take the section or course that corresponds with their major teaching content areas.

Electrical Engineering

B.S. Degree

The mission of the UAF Electrical and Computer Engineering Department is to offer the highest-quality contemporary education at the undergraduate and graduate levels and to perform research appropriate to the technical needs of the state of Alaska, the nation and the world.

Electrical and computer engineering encompasses telecommunications, electrical power generation, transmission and distribution, control systems, and computer applications and design. Electrical engineers can typically expect gainful employment in one or more of these areas after graduation.

Communication engineers design, build and operate communication devices and systems, including satellites, antennas, wireless devices and computer networks. Electric power engineers design and oversee the construction, installation and maintenance of electrical systems that provide light, heat and power. Power engineers are also instrumental in the development of systems using modern power electronic devices to control power generation and distribution and build electric drives.

People trained in computer engineering automate businesses, factories,
pipelines and refineries. They design control systems and computers that guide trains, planes and space vehicles. Electrical engineers design the integrated circuits and automatic control systems used in many areas of science and engineering. Process controls in the mining and petroleum industries are also largely the responsibility of the electrical and computer engineer.

Undergraduate research and design project opportunities are available at UAF in the areas of communications, radar, sonar and lidar remote sensing, instrumentation and microwave circuit design, electric power and energy systems, digital and computer engineering and nanotechnology. The Student Rocket Project brings electrical and computer engineering and mechanical engineering students together to build and launch rockets at the Poker Flat Research Range, the only university-affiliated rocket range in the country. This program offers real engineering experience as well as fellowships, paid internships and scholarships.

The curriculum is designed to ensure that fundamentals and specialized skills are acquired by the student. The program prepares engineers to enter practice upon graduation and provides the theoretical background for students entering graduate studies. Candidates for the B.S. degree are required to take the State of Alaska Fundamentals of Engineering Examination in their general field.

The faculty of the Electrical and Computer Engineering Department provide a positive learning environment that enables students to pursue their goals in an innovative program that is rigorous and challenging, open and supportive. The BSEE program develops practical skills by emphasizing hands-on experience in the design, implementation, and validation of electrical systems in an environment that fosters and encourages innovation and creativity. This approach builds the foundation for the following program educational objectives.

1. Breadth: Graduates will utilize their broad education emphasizing electrical engineering to serve as the foundation for productive careers in the public or private sectors, graduate education, and lifelong learning.

2. Depth: Graduates will apply their understanding of the fundamental knowledge prerequisite for the practice of and/or advanced study in electrical engineering, including its scientific principles, rigorous analysis, and creative design. The BSEE program offers depth concentration areas in communications, computer engineering, and power and control.

3. Professional skills: Graduates will apply skills for clear communication, responsible teamwork, professional attitudes and ethics needed to succeed in the complex modern work environment.

These objectives serve the department, college and university missions by ensuring that all graduates of the BSEE program have received a high-quality, contemporary education that prepares them for rewarding careers in electrical engineering.

Minimum Requirements for Electrical Engineering Bachelor's Degree: 135 credits

Learn more about the bachelor's degree in electrical engineering (https://uaf.edu/academics/programs/bachelors/electrical-engineering.php), including an overview of the program, career opportunities and more.

College of Engineering and Mines
Department of Electrical and Computer Engineering (http://cem.uaf.edu/ece/)

Programs
Degree
• B.S., Electrical Engineering (p. 221)

B.S., Electrical Engineering
Program Requirements
Students must earn a C- grade or better in each course.

Minimum Requirements for Electrical Engineering B.S.: 135 credits

CONCENTRATIONS: COMMUNICATIONS (P. 222), COMPUTER ENGINEERING (P. 222), POWER AND CONTROL (P. 222)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tr>
<td>General University Requirements</td>
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<td>Complete the general university requirements.</td>
<td>(p. 154)</td>
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<td>General Education Requirements</td>
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<td>Complete the general education requirements.</td>
<td>(p. 157)</td>
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<td>As part of the general education requirements,</td>
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<tr>
<td>complete:</td>
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<tr>
<td></td>
<td>CHEM F105X General Chemistry I</td>
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</tr>
<tr>
<td></td>
<td>and CHEM F106X and General Chemistry II</td>
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<tr>
<td></td>
<td>or PHYS F213X Elementary Modern Physics</td>
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<td></td>
<td>MATH F251X Calculus I</td>
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<td>B.S. Degree Requirements</td>
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</tr>
<tr>
<td>Complete the B.S. degree requirements.</td>
<td>(p. 170)</td>
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</tr>
<tr>
<td>As part of the B.S. degree requirements, complete:</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>MATH F252X Calculus II</td>
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<td>PHYS F211X General Physics I</td>
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<td></td>
<td>PHYS F212X General Physics II</td>
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<tr>
<td>Electrical Engineering Program Requirements</td>
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<td>EE F102</td>
<td>Introduction to Electrical and Computer</td>
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<td>Engineering</td>
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<td>EE F203</td>
<td>Electric Circuits</td>
<td>4</td>
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<tr>
<td>EE F204</td>
<td>Electrical Engineering Fundamentals II</td>
<td>4</td>
</tr>
<tr>
<td>EE F303</td>
<td>Electrical Machinery</td>
<td>4</td>
</tr>
<tr>
<td>EE F311</td>
<td>Engineering Electromagnetics I</td>
<td>3</td>
</tr>
<tr>
<td>EE F331</td>
<td>High-frequency Lab</td>
<td>1</td>
</tr>
<tr>
<td>EE F333</td>
<td>Electronic Devices</td>
<td>4</td>
</tr>
<tr>
<td>EE F334</td>
<td>Electronic Circuit Design</td>
<td>4</td>
</tr>
<tr>
<td>EE F343</td>
<td>Digital Systems Analysis and Design</td>
<td>4</td>
</tr>
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<td>EE F353</td>
<td>Circuit Theory</td>
<td>3</td>
</tr>
<tr>
<td>EE F354</td>
<td>Engineering Signal Analysis</td>
<td>3</td>
</tr>
<tr>
<td>EE F471</td>
<td>Automatic Control</td>
<td>3</td>
</tr>
<tr>
<td>ES F101</td>
<td>Introduction to Engineering</td>
<td>3</td>
</tr>
<tr>
<td>ES F201</td>
<td>Computer Techniques</td>
<td>3</td>
</tr>
<tr>
<td>ES F208</td>
<td>Mechanics</td>
<td>4</td>
</tr>
<tr>
<td>ESM F450</td>
<td>Economic Analysis and Operations</td>
<td>3</td>
</tr>
<tr>
<td>MATH F253X</td>
<td>Calculus III</td>
<td>4</td>
</tr>
<tr>
<td>MATH F302</td>
<td>Differential Equations</td>
<td>3</td>
</tr>
</tbody>
</table>
Approved EE elective 3-4
Approved EE design elective 3-4
Complete one of the following approved engineering science electives:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ES F331</td>
<td>Mechanics of Materials</td>
</tr>
<tr>
<td>ES F341</td>
<td>Fluid Mechanics</td>
</tr>
<tr>
<td>ES F346</td>
<td>Introduction to Thermodynamics</td>
</tr>
<tr>
<td>ME F334</td>
<td>Elements of Material Science/Engineering</td>
</tr>
</tbody>
</table>

Approved mathematics elective 1

Capstone Requirement
Complete the baccalaureate capstone requirement as determined by the program.

Fundamentals of Engineering (FE) Examination
Complete the Fundamentals of Engineering (FE) examination administered by the State of Alaska

Concentrations
Complete one of the following concentrations: 11-12

<table>
<thead>
<tr>
<th>Communications</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Engineering</td>
<td></td>
</tr>
<tr>
<td>Power and Control</td>
<td></td>
</tr>
</tbody>
</table>

1 Mathematics elective to be chosen from the following advanced topics: linear algebra and matrices, probability and statistics, partial differential equations, numerical analysis, advanced calculus or complex variables.

2 EE F408, EE F444 or EE F464 may fulfill the baccalaureate capstone requirement. These courses may also fulfill approved electrical engineering electives.

English

B.A. Degree

The B.A. in English at UAF provides training in rhetorical dexterity, critical acumen and creative ingenuity — habits of mind that develop alongside intellectual inquiries concerning the production and reception of literary and nonliterary texts. As effective creators and thoughtful consumers of print and digital information, students learn how to identify critical methods, analyze language in varying historical, cultural and institutional contexts, and employ research in writing and speaking for a professional audience in the humanities.

The department has a particular strength in creative writing; students will have the opportunity to attend lectures and workshops with respected visiting writers and scholars as well as resident faculty. Mindful of how language shapes problems, communities and environments, students are prepared for a variety of graduate programs and careers in diverse fields such as education, law and business.

Minimum Requirements for English Bachelor’s Degree: 120 credits

Learn more about the bachelor's degree in English (https://uaf.edu/academics/programs/bachelors/english.php), including an overview of the program, career opportunities and more.

Programs

Degree

- B.A., English (p. 223)

Minor

- Minor, English (p. 224)
- Minor, Creative Writing (p. 224)
- Minor, Ancient, Medieval and Early Modern Studies (p. 223)
B.A., English
Program Requirements
Students must earn a C- grade or better in each course.

Minimum Requirements for English B.A.: 120 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td></td>
<td>General University Requirements</td>
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</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (p. 154)</td>
<td></td>
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<tr>
<td></td>
<td>General Education Requirements</td>
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<td></td>
<td>Complete the general education requirements. (p. 157)</td>
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<tr>
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<td>B.A. Degree Requirements</td>
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<tr>
<td></td>
<td>Complete the B.A. degree requirements. (p. 164)</td>
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<tr>
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<td>English Program Requirements</td>
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<tr>
<td>ENGL F310</td>
<td>Literary Criticism</td>
<td>3</td>
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<tr>
<td>ENGL F400</td>
<td>Capstone Portfolio</td>
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<tr>
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<td>Complete three of the following:</td>
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<tr>
<td>ENGL F301</td>
<td>Literature of the Ancient World</td>
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</tr>
<tr>
<td>ENGL F302</td>
<td>Medieval and Early Modern European Literature</td>
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</tr>
<tr>
<td>ENGL F306</td>
<td>Survey of American Literature: Beginnings to the Civil War</td>
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</tr>
<tr>
<td>ENGL F307</td>
<td>Survey of American Literature: Civil War to the Present</td>
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<tr>
<td>ENGL F308</td>
<td>Survey of British Literature: Beowulf to the Romantic Period</td>
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<tr>
<td>ENGL F309</td>
<td>Survey of British Literature: Romantic Period to the Present</td>
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<tr>
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<td>Complete one of the following:</td>
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<tr>
<td>ENGL F422</td>
<td>Shakespeare: History Plays and Tragedies</td>
<td></td>
</tr>
<tr>
<td>ENGL F425</td>
<td>Shakespeare: Comedies and Nondramatic Poetry</td>
<td></td>
</tr>
<tr>
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<td>Complete one of the following:</td>
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</tr>
<tr>
<td>ENGL F317</td>
<td>Traditional English Grammar</td>
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</tr>
<tr>
<td>ENGL F318</td>
<td>Modern English Grammar</td>
<td></td>
</tr>
<tr>
<td>ENGL F462</td>
<td>Applied English Linguistics</td>
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</tr>
<tr>
<td>ENGL F472</td>
<td>History of the English Language</td>
<td></td>
</tr>
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<td>Complete one of the following:</td>
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</tr>
<tr>
<td>ENGL F333</td>
<td>Women's Literature</td>
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</tr>
<tr>
<td>ENGL F340</td>
<td>Contemporary Native American Literature</td>
<td></td>
</tr>
<tr>
<td>ENGL F341</td>
<td>Contemporary Alaska Native Literature</td>
<td></td>
</tr>
<tr>
<td>ENGL F347</td>
<td>Voices of Native American Peoples</td>
<td></td>
</tr>
<tr>
<td>ENGL F349</td>
<td>Narrative Art of Alaska Native Peoples (in English translation)</td>
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<tr>
<td>ENGL F360</td>
<td>Multiethnic Literatures of the United States</td>
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<tr>
<td>ENGL F380</td>
<td>Topics in Colonial and Postcolonial Literature</td>
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</tr>
<tr>
<td>ENGL F433</td>
<td>Women, Gender and Sexuality in Language, Literature and Culture</td>
<td></td>
</tr>
<tr>
<td>ENGL F449</td>
<td>Northern and Environmental Literature</td>
<td></td>
</tr>
</tbody>
</table>

Minor, Ancient, Medieval and Early Modern Studies

Minor
The minor in ancient, medieval and early modern studies will provide students with a background in the Western tradition in disciplines that emphasizes key artistic, literary, philosophical, political, religious and social movements in these time periods. Students will a better understanding of the workings and struggles, advancements and achievements, and conflicts and prejudices of these civilizations and cultures. The curriculum requires that students take classes in at least three fields of study and thereby ensures that students will engage in a well-rounded examination of these time periods.

Minimum Requirements for Ancient, Medieval and Early Modern Studies Minor: 18 credits

College of Liberal Arts
Department of English (http://www.uaf.edu/english/)
907-474-7193

Program Requirements
Students must earn a C- grade or better in each course.

Minimum Requirements for Ancient, Medieval and Early Modern Studies Minor: 18 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HUM F201X</td>
<td>Unity in the Arts</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Complete five from the following:</td>
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</tr>
<tr>
<td></td>
<td>Only two electives from the list can be from any one discipline.</td>
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</tbody>
</table>
Minor, Creative Writing

Students must earn a C- grade or better in each course.

Minimum Requirements for Creative Writing Minor: 15 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL F270X</td>
<td>Introduction to Creative Writing</td>
<td>3</td>
</tr>
<tr>
<td>ENGL F375</td>
<td>Intermediate Creative Writing: Fiction</td>
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</tr>
<tr>
<td>ENGL F376</td>
<td>Intermediate Creative Writing: Poetry</td>
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<tr>
<td>ENGL F377</td>
<td>Intermediate Creative Writing: Nonfiction</td>
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</tr>
<tr>
<td>ENGL F470</td>
<td>Topics in Creative Writing</td>
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</tr>
<tr>
<td>ENGL F471</td>
<td>Undergraduate Writers’ Workshop</td>
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</tr>
<tr>
<td>ENGL F488</td>
<td>Dramatic Writing</td>
<td></td>
</tr>
</tbody>
</table>

Minimum Requirements for English Minor: 18 credits

<table>
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<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENGL electives at the F300 level or above</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>ENGL electives at the F400 level</td>
<td>9</td>
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</tr>
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</table>

Environmental Politics

Minor Only

Students in the minor program in environmental politics explore the local, national and international contexts within which key decisions about the environment are made. Courses examine philosophical and theoretical perspectives on the environment; ways in which different countries address issues of resource development and environmental regulations; international environmental laws, treaties, and institutions; relationships between environmental protection and national security; relationships between politics and environmental science; and the effects of environmental concerns on the international political economy.

The minor may be used in conjunction with any B.A. degree program, including political science, or as an optional addition to any B.S. degree program. For further information, contact the Department of Political Science.

College of Liberal Arts
Department of Political Science (http://www.uaf.edu/polisci/)
907-474-7609

Programs

Minor

- Minor, Environmental Politics (p. 224)

Minor, Environmental Politics

Program Requirements

Students must earn a C- grade or better in each course.

Minimum Requirements for Environmental Politics Minor: 15 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PS F101X</td>
<td>Introduction to American Government and Politics</td>
<td>3</td>
</tr>
<tr>
<td>PS F447</td>
<td>U.S. Environmental Politics</td>
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</tr>
<tr>
<td>PS F454</td>
<td>International Law and the Environment</td>
<td></td>
</tr>
<tr>
<td>PS F455</td>
<td>Political Economy of the Global Environment</td>
<td></td>
</tr>
<tr>
<td>PS F456</td>
<td>Science, Technology and Politics</td>
<td></td>
</tr>
<tr>
<td>PS F458</td>
<td>Comparative Environmental Politics</td>
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</tr>
</tbody>
</table>
Eskimo B.A. Degree

Eskimo languages are spoken by far northern people from the northeastern tip of Siberia, across Alaska and Canada, to East Greenland. The Eskimo languages include the four Yupik languages of Alaska and Siberia as well as Inuit, the Alaska sector of which is called Inupiaq. In terms of population and numbers of speakers, Central Alaska Yup’ik is by far the largest Alaska Native language; Inupiaq is the second largest. Eskimo languages are the linguistic heritage of more than half of Alaska’s Native population.

Students who obtain a B.A. in Central Yup’ik or Inupiaq Eskimo may be employed as Native language instructors or language specialists for school districts or Native organizations. No other university in the United States offers a B.A. in Eskimo.

Students in linguistics or anthropology may want to complete a minor in Eskimo to add a distinctly Alaska emphasis to their education.

Minimum Requirements for Inupiaq and Yup’ik Eskimo Bachelor’s Degrees: 120 credits

College of Liberal Arts
Alaska Native Languages Program (http://www.uaf.edu/anlc/)
907-474-7874

Programs

Degrees

• B.A., Inupiaq Eskimo (p. 225)
• B.A., Yup’ik Eskimo (p. 225)

Minor

• Minor, Eskimo (p. 226)

B.A., Inupiaq Eskimo

Program Requirements

Students must earn a C- grade or better in each course.

Minimum Requirements for Inupiaq Eskimo B.A.: 120 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>ANL F315</td>
<td>Alaska Native Languages: Eskimo-Aleut</td>
<td>3</td>
</tr>
<tr>
<td>INU F111X</td>
<td>Elementary Inupiaq I</td>
<td>5</td>
</tr>
<tr>
<td>INU F112X</td>
<td>Elementary Inupiaq II</td>
<td>5</td>
</tr>
<tr>
<td>INU F211</td>
<td>Intermediate Inupiaq I</td>
<td>3</td>
</tr>
<tr>
<td>INU F212</td>
<td>Intermediate Inupiaq II</td>
<td>3</td>
</tr>
<tr>
<td>INU F417</td>
<td>Advanced Inupiaq</td>
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<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>ANL F287</td>
<td>Teaching Methods for Alaska Native Languages</td>
</tr>
<tr>
<td>ANL F316</td>
<td>Alaska Native Languages: Indian Languages</td>
</tr>
<tr>
<td>ANS/ENGL F349</td>
<td>Narrative Art of Alaska Native Peoples (in English translation)</td>
</tr>
<tr>
<td>ANTH F242</td>
<td>Native Cultures of Alaska</td>
</tr>
<tr>
<td>HIST F110X</td>
<td>History of Alaska Natives from Contact to the Present</td>
</tr>
<tr>
<td>INU F417</td>
<td>Advanced Inupiaq</td>
</tr>
<tr>
<td>LING/ED F303</td>
<td>Language Acquisition</td>
</tr>
<tr>
<td>LING F318</td>
<td>Introduction to Phonetics and Phonology</td>
</tr>
<tr>
<td>LING F320</td>
<td>Introduction to Morphology</td>
</tr>
<tr>
<td>LING F410</td>
<td>Theory and Methods of Second Language Teaching</td>
</tr>
<tr>
<td>LING F430</td>
<td>Historical Linguistics</td>
</tr>
<tr>
<td>LING F450</td>
<td>Language Policy and Planning</td>
</tr>
<tr>
<td>MUS F223X</td>
<td>Alaska Native Music</td>
</tr>
<tr>
<td>PS F263</td>
<td>Alaska Native Politics</td>
</tr>
</tbody>
</table>

Yup’ik course or approved course

1 Fulfills the baccalaureate capstone requirement.

B.A., Yup’ik Eskimo

Program Requirements

Students must earn a C- grade or better in each course.

Minimum Requirements for Yup’ik Eskimo Bachelors Degree: 120 credits

<table>
<thead>
<tr>
<th>Code</th>
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<tbody>
<tr>
<td>ANL F315</td>
<td>Alaska Native Languages: Eskimo-Aleut</td>
</tr>
<tr>
<td>LING F101X</td>
<td>Nature of Language</td>
</tr>
<tr>
<td>LING F318</td>
<td>Introduction to Phonetics and Phonology</td>
</tr>
<tr>
<td>LING F320</td>
<td>Introduction to Morphology</td>
</tr>
<tr>
<td>LING F410</td>
<td>Theory and Methods of Second Language Teaching</td>
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<tr>
<td>LING F430</td>
<td>Historical Linguistics</td>
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<td>LING F450</td>
<td>Language Policy and Planning</td>
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<td>MUS F223X</td>
<td>Alaska Native Music</td>
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<td>PS F263</td>
<td>Alaska Native Politics</td>
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Complete two from the following:

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<tr>
<td>ANL F287</td>
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</tr>
<tr>
<td>ANL F316</td>
<td>Alaska Native Languages: Indian Languages</td>
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</table>

1 Fulfills the baccalaureate capstone requirement.
Minimum Requirements for Ethnobotany

Minor: 15 credits

<table>
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<tr>
<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>EBOT F100</td>
<td>introduction to Ethnobotany</td>
<td>3</td>
</tr>
<tr>
<td>EBOT F200</td>
<td>Seminar in Ethnobotany</td>
<td>1</td>
</tr>
<tr>
<td>EBOT F210</td>
<td>Ethical Wildcrafting</td>
<td>1</td>
</tr>
<tr>
<td>EBOT F220</td>
<td>Ethnobotanical Techniques</td>
<td>2</td>
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<tr>
<td>EBOT F230</td>
<td>Ethnobotanical Chemistry</td>
<td>3-4</td>
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<tr>
<td>or EBOT F250</td>
<td>Applied Ethnobotany Fall</td>
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<tr>
<td>and EBOT F251</td>
<td>Applied Ethnobotany Spring</td>
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</table>

Complete 4-5 credits of advisor-approved elective courses at 200 level or higher, selected from related subject areas, including (but not limited to): ANL, ANS, ANTH, BIOL and RD.

Film and Performing Arts

B.A. Degree

The Theatre and Film Department teaches courses in media and performing arts, technology, theory and criticism. The department recognizes the importance of the role of the fine and performing arts within the humanities program of a liberal arts education. Courses in film and performing arts help develop students’ original, creative and critical thinking while developing mastery in technical or dramatic skills.

A degree in film and performing arts gives students a critical understanding of the history, theory and technologies of cinema, new media arts and theatre arts while giving them opportunities, tools and resources for careers in media and performing arts industries, to pursue graduate study, or become media or theatre artists. Students take a shared group of classes in performance, production design and filmmaking, and then choose either a film or theatre concentration.

Film concentration: Through an interdisciplinary approach to film and media studies, the program produces media-literate professionals who can play a leading role in an increasingly information-centered world where every profession will require skilled media creators. Film students have opportunities to produce their own creative, time-based content for a variety of multimedia applications. Emphasis is placed on the cultures, lifestyles and environments of Alaska and the North and the unique opportunities they afford for skilled media creators and artists.

Theatre concentration: Students become well-rounded and prepared artists who can contribute their design, technical and performance skills to stage and screen work. The theatre concentration emphasizes stage and screen practicum work, so students learn through hands-on experience on stage and screen sets. These experiences provide unique opportunities for creative expression and workforce development.

Classes and productions are open to film and performing arts majors, theatre or film minors, and students in other fields.

Minimum Requirements for Film and Performing Arts Bachelor’s Degree: 120 credits

Learn more about the bachelor’s degree in film and performing arts (https://uaf.edu/academics/programs/bachelors/film-performing-arts.php), including an overview of the program, career opportunities and more.
College of Liberal Arts  
Department of Theatre and Film (http://www.uaf.edu/theatrefilm/)  
907-474-6590

Programs

Degree

• B.A., Film and Performing Arts (p. 227)

Minor

• Minor, Film (p. 228)
• Minor, Theatre (p. 228)

B.A., Film and Performing Arts

Program Requirements

Students must earn a C- grade or better in each course.

Minimum Requirements for Film and Performing Arts B.A.: 120 credits

CONCENTRATIONS: FILM (P. 227), THEATRE (P. 227)

<table>
<thead>
<tr>
<th>Code</th>
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</tr>
<tr>
<td></td>
<td>B.A. Degree Requirements</td>
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</tr>
<tr>
<td></td>
<td>Complete the B.A. degree requirements. (p. 164)</td>
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</tr>
<tr>
<td></td>
<td>Film and Performing Arts Program Requirements</td>
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</tr>
<tr>
<td>FLPA F121X</td>
<td>Fundamentals of Acting</td>
<td>3</td>
</tr>
<tr>
<td>FLPA F271</td>
<td>Film Set Production I</td>
<td>3</td>
</tr>
<tr>
<td>FLPA F247</td>
<td>Introduction to Production Design</td>
<td>3</td>
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<tr>
<td></td>
<td>Concentrations</td>
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<tr>
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<td>Complete one of the following concentrations:</td>
<td>30</td>
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<tr>
<td></td>
<td>Film</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Theatre</td>
<td></td>
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</tbody>
</table>
|            | To graduate, all students must complete 39 upper-division credits. Some of these will be covered by the upper-division required courses for the film and performing arts B.A., but not all of them. Film and performing arts students will need to take upper-division electives (in film and performing arts or other disciplines) to complete the upper-division requirement.

CONCENTRATIONS

FILM

<table>
<thead>
<tr>
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<th>Credits</th>
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<tbody>
<tr>
<td>FLPA COJO/ENGL F217X</td>
<td>Introduction to the Study of Film</td>
<td>3</td>
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<tr>
<td>FLPA ART F231</td>
<td>Previsualization and Preproduction</td>
<td>3</td>
</tr>
<tr>
<td>FLPA F258</td>
<td>Lights, Camera, Audio!</td>
<td>3</td>
</tr>
<tr>
<td>FLPA F260/ COJO F290</td>
<td>Digital Video Editing: Adobe Suite</td>
<td>3</td>
</tr>
<tr>
<td>FLPA F289</td>
<td>Reel Workshop/Review I</td>
<td>0</td>
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<tr>
<td>and FLPA F389 and FLPA F489</td>
<td>and Reel Workshop/Review II</td>
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<tr>
<td>FLPA F331</td>
<td>Directing Film/Video</td>
<td>3</td>
</tr>
<tr>
<td>FLPA F403</td>
<td>Practicum in Film Production: FRAME</td>
<td>3</td>
</tr>
<tr>
<td>FLPA F431</td>
<td>Film Set Production II</td>
<td>3</td>
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<tr>
<td></td>
<td>Complete three from the following:</td>
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<tr>
<td>FLPA F310</td>
<td>Acting for the Camera</td>
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<tr>
<td>FLPA F320</td>
<td>Acting II: Voice and Speech</td>
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<tr>
<td>FLPA F321</td>
<td>Acting III: Movement</td>
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<tr>
<td>FLPA F334</td>
<td>Movies and Films: Watching and Analyzing</td>
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<tr>
<td>FLPA F371</td>
<td>Digital Imaging</td>
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<tr>
<td>FLPA ANS F381</td>
<td>Indigenous World in Film</td>
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<tr>
<td>FLPA F418</td>
<td>Internship in Film Production</td>
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</tr>
<tr>
<td>FLPA F423</td>
<td>Acting IV: Scene Study</td>
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</tr>
<tr>
<td>FLPA F458</td>
<td>SFX Up Your Video</td>
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<tr>
<td>FLPA F460</td>
<td>Cross-cultural Filmmaking</td>
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</tr>
<tr>
<td>FLPA F472</td>
<td>3D Animation</td>
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<tr>
<td>FLPA F480</td>
<td>Documentary Filmmaking</td>
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</tr>
<tr>
<td>FLPA F481</td>
<td>Advanced Topics in Film or Stage Production</td>
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</tr>
<tr>
<td>FLPA ENGL F488</td>
<td>Dramatic Writing</td>
<td></td>
</tr>
<tr>
<td>FLPA F498</td>
<td>Undergraduate Research</td>
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<tr>
<td>FLPA F499</td>
<td>Thesis Project</td>
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<tr>
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<tr>
<td></td>
<td>1 Fulfills the baccalaureate capstone requirement.</td>
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THEATRE

<table>
<thead>
<tr>
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<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>FLPA F190</td>
<td>Audition or Portfolio Review Participation</td>
<td>0</td>
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<tr>
<td>and FLPA F191</td>
<td>and Audition or Portfolio Review Participation</td>
<td></td>
</tr>
<tr>
<td>FLPA F215X</td>
<td>Dramatic Literature and History</td>
<td>3</td>
</tr>
<tr>
<td>FLPA F241</td>
<td>Basic Stagecraft</td>
<td>4</td>
</tr>
<tr>
<td>FLPA F290</td>
<td>Audition or Portfolio Review Participation II</td>
<td>0</td>
</tr>
<tr>
<td>and FLPA F291</td>
<td>and Audition or Portfolio Review Participation II</td>
<td></td>
</tr>
<tr>
<td>FLPA F310</td>
<td>Acting for the Camera</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Complete 8 credits from the following, at least 3 of which must be FLPA F402:</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>FLPA F401 Theatre Practicum: Performance</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FLPA F402 Theatre Practicum: Technical</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete four from the following:</td>
<td>12</td>
</tr>
<tr>
<td>FLPA F320</td>
<td>Acting II: Voice and Speech</td>
<td></td>
</tr>
<tr>
<td>FLPA F321</td>
<td>Acting III: Movement</td>
<td></td>
</tr>
<tr>
<td>FLPA F332</td>
<td>Stage Directing</td>
<td></td>
</tr>
<tr>
<td>FLPA F347</td>
<td>Lighting Design</td>
<td></td>
</tr>
<tr>
<td>FLPA ANS F361</td>
<td>Advanced Alaska Native Performance</td>
<td></td>
</tr>
<tr>
<td>FLPA F423</td>
<td>Acting IV: Scene Study</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 Fulfills the baccalaureate capstone requirement.</td>
<td></td>
</tr>
<tr>
<td>FLPA F481</td>
<td>Advanced Topics in Film or Stage Production</td>
<td></td>
</tr>
</tbody>
</table>
Minor, Film

Program Requirements

Minimum Requirements for Film Minor: 18 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLPA F217X</td>
<td>Introduction to the Study of Film</td>
<td>3</td>
</tr>
<tr>
<td>FLPA F258</td>
<td>Lights, Camera, Audio!</td>
<td>3</td>
</tr>
<tr>
<td>FLPA F271</td>
<td>Film Set Production I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Department-approved FLPA electives</td>
<td>9</td>
</tr>
</tbody>
</table>

1 Fulfills the baccalaureate capstone requirement.

Note: FLPA film concentration majors cannot minor in film but may minor in theatre. FLPA theatre concentration majors cannot minor in theatre but may minor in film.

Minor, Theatre

Program Requirements

Minimum Requirements for Theatre Minor: 18 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLPA F121X</td>
<td>Fundamentals of Acting</td>
<td>3</td>
</tr>
<tr>
<td>FLPA F215X</td>
<td>Dramatic Literature and History</td>
<td>3</td>
</tr>
<tr>
<td>FLPA F241</td>
<td>Basic Stagecraft</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Department-approved FLPA electives</td>
<td>8</td>
</tr>
</tbody>
</table>

Minors, Fire Science

Minor

The fire science program, which presently emphasizes only municipal fire control, provides classroom education, hands-on training and practical vocational experience through local fire and rescue organizations.

Instructors provide a high level of technical expertise on a variety of emergency and fire science services. The primary goal of this program is to make our students the most attractive candidates for job openings and promotions within fire and other emergency services fields.

Community and Technical College
Fire Science (http://www.ctc.uaf.edu/programs/emergency/)
907-455-2800

Programs

Minor

• Minor, Fire Science (p. 228)
Learn more about the bachelor’s degree in fisheries (https://uaf.edu/academics/programs/bachelors/fisheries.php), including an overview of the program, career opportunities and more.

Learn more about the bachelor’s degree in fisheries and marine sciences (https://uaf.edu/academics/programs/bachelors/fisheries-marine-sciences.php), including an overview of the program, career opportunities and more.

College of Fisheries and Ocean Sciences
Fisheries Program (http://www.uaf.edu/cfos/academics/)
907-474-7289

Programs

Degrees

• B.A., Fisheries (p. 229)
• B.S., Fisheries and Marine Sciences (p. 229)

Minor

• Minor, Fisheries (p. 230)

B.A., Fisheries

Program Requirements

Students must earn a C- grade or better in each course.

Minimum Requirements for Fisheries B.A.: 120 credits

CONCENTRATIONS: FISHERIES BUSINESS AND SOCIAL SCIENCE (P. 229), RURAL AND COMMUNITY DEVELOPMENT (P. 229)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL F314</td>
<td>Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>or ENGL F414</td>
<td>Research Writing</td>
<td></td>
</tr>
<tr>
<td>FISH F102</td>
<td>Fact or Fishin': Case Studies in Fisheries and Marine Sciences</td>
<td>1</td>
</tr>
<tr>
<td>FISH F103</td>
<td>The Harvest of the Sea</td>
<td>2</td>
</tr>
<tr>
<td>FISH F110</td>
<td>Fish and Fisheries in a Changing World</td>
<td>3</td>
</tr>
<tr>
<td>FISH F261</td>
<td>Introduction to Fisheries Utilization</td>
<td>3</td>
</tr>
<tr>
<td>FISH F288</td>
<td>Fish and Fisheries of Alaska</td>
<td>3</td>
</tr>
<tr>
<td>FISH F411</td>
<td>Human Dimensions of Environmental Systems</td>
<td>3</td>
</tr>
<tr>
<td>FISH F487</td>
<td>Fisheries Management</td>
<td>3</td>
</tr>
<tr>
<td>FISH F490</td>
<td>Experiential Learning: Fisheries and Marine Sciences Internship</td>
<td>1</td>
</tr>
<tr>
<td>STAT F200X</td>
<td>Elementary Statistics</td>
<td>3</td>
</tr>
</tbody>
</table>

Concentrations

Complete one of the following concentrations:

1. To graduate, all students must complete 39 upper-division credits.
2. Fulfills the baccalaureate capstone requirement.

CONCENTRATIONS

FISHERIES BUSINESS AND SOCIAL SCIENCE

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT F261X</td>
<td>Principles of Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>FISH F340</td>
<td>Seafood Business</td>
<td>3</td>
</tr>
</tbody>
</table>

Five upper-division classes (300-400 level; 15 credits) from social science fields including: Alaska Native Studies, Anthropology, Arctic and Northern Studies, Cross-Cultural Studies, Economics, Environmental Studies, Geography, History, Natural Resources Management, Sociology, Philosophy, Political Science, Psychology, Rural Development

RURAL AND COMMUNITY DEVELOPMENT

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RD F245</td>
<td>Fisheries and Marine Wildlife Development in Rural Alaska</td>
<td>3</td>
</tr>
<tr>
<td>RD F255</td>
<td>Rural Alaska Land Issues</td>
<td>3</td>
</tr>
<tr>
<td>RD F265</td>
<td>Perspectives on Subsistence in Alaska</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RD F300</td>
<td>Rural Development in a Global Perspective</td>
<td>3</td>
</tr>
<tr>
<td>RD F325</td>
<td>Rural Development Principles and Practices</td>
<td>3</td>
</tr>
</tbody>
</table>

Four upper-division (300-400 level; 12 credits) Rural Development electives

B.S., Fisheries and Marine Sciences

Program Requirements

Students must earn a C- grade or better in each course.

Minimum Requirements for Fisheries and Marine Sciences Degree: 120 credits

CONCENTRATIONS: FISHERIES SCIENCE (P. 230), MARINE SCIENCES (P. 230)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL F115X</td>
<td>Fundamentals of Biology I</td>
<td></td>
</tr>
<tr>
<td>BIOL F116X</td>
<td>Fundamentals of Biology II</td>
<td></td>
</tr>
<tr>
<td>ECON F201X</td>
<td>Principles of Economics I: Microeconomics</td>
<td></td>
</tr>
<tr>
<td>or ECON F235X</td>
<td>Introduction to Natural Resource Economics</td>
<td></td>
</tr>
<tr>
<td>MATH F230X</td>
<td>Essential Calculus with Applications</td>
<td></td>
</tr>
</tbody>
</table>

Concentrations

Complete one of the following concentrations:

1. To graduate, all students must complete 39 upper-division credits.
2. Fulfills the baccalaureate capstone requirement.
B.S. Degree Requirements
Complete the B.S. degree requirements. (p. 170)
As part of the B.S. degree requirements, complete:

- CHEM F105X General Chemistry I
- CHEM F106X General Chemistry II
- STAT F200X Elementary Statistics

Fisheries and Marine Sciences Program Requirements

- BIOL F260 Principles of Genetics
- BIOL F371 Principles of Ecology
- FISH F102 Fact or Fishin': Case Studies in Fisheries and Marine Sciences
- FISH F103 The Harvest of the Sea
- FISH F110 Fish and Fisheries in a Changing World
- FISH F111 Field Methods in Marine Ecology and Fisheries
- FISH F315 Freshwater Fisheries Techniques
- FISH F414 Marine Biology and Ecology Field Course
- FISH F425 Fish Ecology
- FISH F426 Behavioral Ecology of Fishes
- FISH F428 Physiological Ecology of Fishes
- FISH F433 Pacific Salmon Life Histories
- FISH F427 Ichthyology
- FISH F487 Fisheries Management
- MSL F211 Introduction to Marine Science I
- MSL F212 Introduction to Marine Science II
- MSL F213L Marine Science Laboratory
- PHYS F123X College Physics I
- PHYS F115X Physical Sciences
- PHYS F211X General Physics I
- STAT F401 Regression and Analysis of Variance
- STAT F402 Scientific Sampling
- STAT F200X Elementary Statistics
- MATH F251X Calculus I

Complete 9 credits of electives from fisheries, biology, marine sciences and limnology or natural resource management (of which at least 5 credits must be upper-division).

Complete 4 credits of electives from chemistry, geology or physics.

Concentrations
Complete one from the following concentrations:

Fisheries Science
Marine Sciences

Note: Fisheries and marine science majors are encouraged to reinforce their qualifications by earning a minor in a program related to fisheries and marine sciences. Some examples are biology, fisheries (ocean sciences concentration only), marine science (fisheries science concentration only), business management, chemistry, economics, mathematics, natural resources management (animal science), Northern studies, statistics or wildlife.

Concentrations

**FISHERIES SCIENCE**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FISH F261</td>
<td>Introduction to Fisheries Utilization</td>
<td>3</td>
</tr>
<tr>
<td>FISH F288</td>
<td>Fish and Fisheries of Alaska</td>
<td>3</td>
</tr>
<tr>
<td>FISH F411</td>
<td>Human Dimensions of Environmental Systems</td>
<td>3</td>
</tr>
<tr>
<td>or GEOG F312</td>
<td>People, Places and Environment: Principles of Human Geography</td>
<td></td>
</tr>
<tr>
<td>or SOC F440</td>
<td>Environmental Sociology</td>
<td></td>
</tr>
<tr>
<td>FISH F425</td>
<td>Fish Ecology</td>
<td>3</td>
</tr>
<tr>
<td>or FISH F426</td>
<td>Behavioral Ecology of Fishes</td>
<td></td>
</tr>
<tr>
<td>or FISH F428</td>
<td>Physiological Ecology of Fishes</td>
<td></td>
</tr>
<tr>
<td>or FISH F433</td>
<td>Pacific Salmon Life Histories</td>
<td></td>
</tr>
<tr>
<td>FISH F427</td>
<td>Ichthyology</td>
<td>4</td>
</tr>
<tr>
<td>FISH F487</td>
<td>Fisheries Management</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete 4 credits of electives from chemistry, geology or physics.

1. Students who take GEOG F312 or SOC F440 should be aware that these two courses require additional prerequisites that are not part of the fisheries science concentration.
2. FISH F487 will serve as the capstone course for fisheries science concentration while MSL F481 or MSL F499 will serve as the capstone course for the marine sciences concentration.

MINER SCIENCE

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSL F481</td>
<td>The Oceans and Global Change 1</td>
<td>3</td>
</tr>
<tr>
<td>or MSL F499</td>
<td>Senior Thesis</td>
<td></td>
</tr>
</tbody>
</table>

Complete 20 credits from the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSL F220</td>
<td>Scientific Diving</td>
<td></td>
</tr>
<tr>
<td>MSL F317</td>
<td>Introduction to Marine Mammal Biology</td>
<td></td>
</tr>
<tr>
<td>MSL F412</td>
<td>Early Life Histories of Marine Invertebrates</td>
<td></td>
</tr>
<tr>
<td>MSL F419</td>
<td>Concepts in Physical Oceanography</td>
<td></td>
</tr>
<tr>
<td>MSL F421</td>
<td>Nearshore Ecology Field Course</td>
<td></td>
</tr>
<tr>
<td>MSL F431</td>
<td>Polar Marine Science</td>
<td></td>
</tr>
<tr>
<td>MSL F449</td>
<td>Biological Oceanography</td>
<td></td>
</tr>
<tr>
<td>MSL F461</td>
<td>Chemical Oceanography</td>
<td></td>
</tr>
<tr>
<td>MSL F463</td>
<td>Chemical Coastal Processes</td>
<td></td>
</tr>
<tr>
<td>MSL F492</td>
<td>Seminar</td>
<td></td>
</tr>
</tbody>
</table>

Additional electives to complete minimum credits required.

Minor, Fisheries
Program Requirements
Students must earn a C- grade or better in each course.

Minimum Requirements for Fisheries Minor: 15 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FISH F110</td>
<td>Fish and Fisheries in a Changing World</td>
<td>3</td>
</tr>
</tbody>
</table>
Foreign Languages

B.A. Degree

Language is the embodiment of culture and an expression of a people's way of thinking, feeling and viewing the world. We have an increasing need to communicate directly with other peoples to achieve mutual understanding. To learn a new language opens new avenues of thought, new modes of expression and new models of understanding. The study of foreign languages and literatures liberates the student from the confines of one culture.

Foreign language majors are encouraged to spend one or both semesters of their junior year in an exchange program appropriate to their language focus.

Minimum Requirements for Foreign Languages Bachelor's Degree: 120 credits

Learn more about the bachelor's degree in foreign languages (https://uaf.edu/academics/programs/bachelors/foreign-languages.php), including an overview of the program, career opportunities and more.

College of Liberal Arts
Department of Foreign Languages and Literatures (http://www.uaf.edu/language/)
907-474-7396

Programs

Degree

• B.A., Foreign Languages (p. 231)

Minor

• Minor, Foreign Languages (p. 231)

B.A., Foreign Languages

Program Requirements

Students must earn a C- grade or better in each course.

Minimum Requirements for Foreign Languages B.A.: 120 credits

CONCENTRATIONS: TWO LANGUAGES (P. 231), SINGLE LANGUAGE (FRENCH, GERMAN, SPANISH) (P. 231)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General University Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (p. 154)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>General Education Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general education requirements. (p. 157)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>B.A. Degree Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the B.A. degree requirements. (p. 164)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foreign Languages Program Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the baccalaureate capstone requirement as determined by the program. ¹</td>
<td></td>
</tr>
</tbody>
</table>

¹ The baccalaureate capstone requirement for foreign languages may be fulfilled by FREN F431, SPAN F431, JPN F475, GER F431 or GER F432.

Note: In addition to a first and second language, students should complete a well-defined minor related to their career goals. When choosing a minor it is highly recommended that students see an advisor as early as possible.

Note: Recommended background courses: LING F101X and LING F216X.

Note: F100-level language courses (which are preparatory to, but not part of the foreign language degree) may be counted toward the fulfillment of general education requirements.

CONCENTRATIONS

Two Languages

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>F200 level or above in the first language: French, German, Japanese, or Spanish. ¹</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>F200 level or above in the second language: French, German, Japanese, or Spanish. ¹</td>
<td>15</td>
<td></td>
</tr>
</tbody>
</table>

¹ These must include two F400-level courses in the target language taken in residence at UAF.

French, German or Spanish

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target language at the F200 level or above ¹</td>
<td>30</td>
<td></td>
</tr>
</tbody>
</table>

¹ These may include target language courses and/or courses taken in the target language on an approved study abroad program and up to 6 credits of advisor-approved electives from education or linguistics, but must include two F400-level courses in the target language taken in residence at UAF.

Japanese

See requirements under Japanese Studies major (p. 251).

Minor, Foreign Languages

Program Requirements

Students must earn a C- grade or better in each course.

Minimum Requirements for Foreign Languages Minor: 15 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreign language credits at the F100 level or above</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Foreign language credits at the F200 level or above</td>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>
General Science

B.S. Degree

ADMISSION TO THIS PROGRAM IS CURRENTLY SUSPENDED.

The B.S. degree program in general science provides a broad background in the natural sciences. The program allows specialization in at least two disciplines within the natural sciences as well as an additional area of associated interest. This degree offers more breadth in the natural sciences than other degree programs and may be classified as an interdisciplinary degree.

Minimum Requirements for Degree: 130 credits

College of Natural Science and Mathematics
Department of Physics (http://www.uaf.edu/physics/)
907-474-6108

Programs

Degree

• B.S., General Science (p. 232) - Admission to this program is currently suspended

B.S., General Science

Program Requirements

Admission to this program is currently suspended.

Students must earn a C- grade or better in each course.

Minimum Requirements for Degree: 130 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
</table>

General University Requirements

Complete the general university requirements. (p. 154)

General Education Requirements

Complete the general education requirements. (p. 157)

B.S. Degree Requirements

Complete the B.S. degree requirements. (p. 170)

General Science Program Requirements

Biol F115X Fundamentals of Biology I 4
Biol F116X Fundamentals of Biology II 4
Chem F105X General Chemistry I 4
Chem F106X General Chemistry II 4
Geos F101X The Dynamic Earth 4
Geos F112X The History of Earth and Life 4
Math F151X College Algebra for Calculus 4
Math F152X Trigonometry 3
Math F251X Calculus I 4
Phys F123X College Physics I 4
Phys F124X College Physics II 4

Complete one of the following by the start of the junior year: Two majors

One major and two minors

Complete one of the following: biological sciences, chemistry, geosciences, physics or mathematics.

Complete two minors, one of which must be in the natural sciences or mathematics, while the other may be selected from the following disciplines: anthropology, English, French, German, Spanish, Russian, history, political science or economics.

Complete the baccalaureate capstone requirement as determined by the program.

1. PHYS F211X, PHYS F212X and PHYS F213X may substitute for PHYS F123X and PHYS F124X. CHEM F212 may substitute for CHEM F105X and CHEM F106X.
2. Students do not need to take MATH F151X and MATH F152X if students complete MATH F251X with a C or better. Complete a B.S. degree mathematics elective for 3 credits if MATH F151X and MATH F152X are not taken.
3. General science students, after meeting with their general science advisor, should contact the head of the major/minor department as early as possible to determine course requirements in that discipline. These courses will be determined by the department head of the discipline and will reflect each student’s needs as well as the intent of the general science program.
4. Complete one major from the following: biological sciences, chemistry, geosciences or physics. The major requires the completion of at least 20 credits in addition to the foundation courses in the discipline.
5. The major requires the completion of at least 20 credits in addition to the foundation courses in the discipline.
6. The minor must include 12 or more credits in addition to the foundation courses in that discipline.

Requirements for General Science Teachers (grades 7-12)

1. Complete all the requirements of the general science B.S.
2. If the student opts for one major and two minors, all must represent science or mathematics disciplines.
3. All prospective science teachers must complete the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phil F481</td>
<td>Philosophy of Science</td>
<td>3</td>
</tr>
</tbody>
</table>

Note: We strongly recommend that prospective secondary science teachers seek advising from the Alaska College of Education early in their undergraduate degree program so they can be appropriately advised of the State of Alaska requirements for teacher licensure. Students will apply for admission to the Alaska College of Education's post-baccalaureate teacher preparation program, a one-year intensive program, during their senior year.
Geography

ADMISSION TO THESE PROGRAMS IS CURRENTLY SUSPENDED.

B.A., B.S. Degrees

Geography is a broad, holistic study of the interactions among various natural/environmental, political, cultural and economic systems, and how those interactions create the world we see today at both local and global scales. Geography takes a synthesizing and inherently interdisciplinary approach to develop an integrated understanding of climate change, resource development, energy use and conservation, geopolitics, sustainable development, assessment of natural and human-caused environmental hazards, land-use change, regional conflicts, and economic and political developments all over the world. Geography also provides the framework for the integration of existing and emerging technologies such as GIS, remote sensing and geo-visualization into a broad range of academic and professional fields.

The geography B.A. and B.S. degrees are built upon a group of required courses that gives students a firm grounding in the fundamental components of the discipline, including global geographic perspectives, geography of the earth’s natural systems, geography of human systems, geospatial sciences (GIS, remote sensing, geo-visualization), and the synthesis of these core perspectives through an integrating capstone experience.

Our students find work in such fields as geospatial sciences (GIS/remote sensing/cartography), regional planning, international relations, state and federal resource management, transportation planning, environmental impact assessment, tourism, and teaching. Many of our students go on to graduate study in geography, natural resources, environmental science or planning. The geography B.A. degree gives students a broad understanding of the interactions among the physical environments, economics, political events, and cultures of various regions of the world, and equips students with the ability to interpret contemporary geopolitical and environmental issues. The B.A. prepares students for careers in management, policy, teaching, field-based research, regional planning, and a variety of private sector careers. The B.A. also provides an excellent foundation for graduate studies in a wide range of academic disciplines.

B.A. students are encouraged to coordinate minors, electives and internships to develop further expertise within a chosen region or topic, to take advantage of the considerable topical and regional expertise found throughout the UAF community, and also to underscore the important role other disciplines play within the field of geography.

Three specialized concentrations are available to students pursuing the B.S. degree:

- environmental studies
- landscape analysis and climate change studies
- geospatial sciences

The environmental studies concentration provides the foundation for understanding interactions between natural and human systems, analysis of environmental issues from an interdisciplinary geographic perspective, a diverse technical and scientific approach to environmental issues, and the ability to design balanced solutions to environmental problems.

The landscape analysis and climate change studies concentration integrates and synthesizes courses in geography, climate, geologic and biological sciences, as well as geospatial sciences. Students gain a sound and interdisciplinary understanding of how environmental change influences landscape patterns and human activity and welfare on both spatial and temporal scales. Senior capstone and internship courses offer integrating capstone experiences, enabling students to apply what they have learned in real-world settings.

The geospatial sciences concentration emphasizes skills and practices in geographic information systems, remote sensing, geovisualization and analysis of spatial patterns. Courses in GIS, remote sensing, GPS, map design, spatial statistics and computer programming are integrated with the geography foundation curriculum and courses in the natural sciences.

Minimum Requirements for Geography Bachelor’s Degrees: 120 credits

Learn more about the bachelor’s degree in geography (https://uaf.edu/academics/programs/bachelors/geography.php), including an overview of the program, career opportunities and more.

College of Natural Science and Mathematics
Department of Geosciences (http://www.uaf.edu/geology/academics/geography/)
907-474-7565

Programs

Degrees

• B.A., Geography (p. 233) — Admission to this program is currently suspended.
• B.S., Geography (p. 234) — Admission to this program is currently suspended.

Minor
• Minor, Geography (p. 236)
• Minor, Geographic Information Systems (p. 236)

B.A., Geography

Program Requirements

Admission to this program is currently suspended.

Students must earn a C- grade or better in each course.

Minimum Requirements for Geography Bachelor’s Degree: 120 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General University Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (p. 154)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>General Education Requirements</td>
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<td></td>
<td>Complete the general education requirements. (p. 157)</td>
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<tr>
<td></td>
<td>B.A. Degree Requirements</td>
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</tr>
<tr>
<td></td>
<td>Complete the B.A. degree requirements. (p. 164)</td>
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</tr>
<tr>
<td></td>
<td>As part of the B.A. degree requirements, complete:</td>
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</tr>
<tr>
<td>NRM F303X</td>
<td>Environmental Ethics and Actions</td>
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### Geography Program Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG F101X</td>
<td>Expedition Earth: Introduction to Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEOG F111X</td>
<td>Earth and Environment: Elements of Physical Geography</td>
<td>4</td>
</tr>
<tr>
<td>GEOG F312</td>
<td>People, Places and Environment: Principles of Human Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEOG/NRM F338</td>
<td>Introduction to Geographic Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>GEOG F490</td>
<td>Geography Seminar</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Regional Geography
Complete two from the following:

- GEOG F302: Geography of Alaska
- GEOG F303: Geography of United States and Canada
- GEOG F305: Geography of Europe
- GEOG F306: Geography of Russia
- GEOG F311: Geography of Asia
- GEOG F429: Geography of the Arctic and Circumpolar North

#### Physical Geography
Complete one of the following:

- GEOG F339: Change Detection in Arctic Systems
- GEOG F418: Biogeography
- GEOG F460: The Dynamic Alaska Coastline
- GEOS F304: Geomorphology
- GEOS F480: Climate Change Processes: Past, Present, Future

#### Human Geography
Complete one of the following:

- GEOG F405: Political Geography
- GEOG/GEOS/NRM F423: Geopolitics of Energy
- NRM F403: Environmental Decision-Making

#### Techniques
Complete one of the following:

- GEOG F310: Digital Cartography and Geovisualization
- GEOG/NRM F435: GIS Analysis
- GEOG/GEOS F483: Research Design, Writing and Presentation Methods
- GEOS F422: Geoscience Applications of Remote Sensing
- GEOS F458: Applications of GPS and GIS in Geophysics
- NRM F366: Survey Research in Natural Resources Management
- NRM F369: GIS and Remote Sensing for Natural Resources

#### Geography Electives
Complete three additional GEOG courses. If not taken as part of the other degree requirements, one of the following courses must be taken:

- GEOG F305: Geography of Europe
- GEOG F306: Geography of Russia
- GEOG F308: Geography of Alaska
- GEOG F311: Geography of Asia
- GEOG F429: Geography of the Arctic and Circumpolar North
- GEOG F460: The Dynamic Alaska Coastline
- GEOG/GEOS F483: Research Design, Writing and Presentation Methods

1. Students will tailor their program through course selection from the categories below in consultation with their advisor to focus on a subspecialty such as Alaska, the circumpolar North, Europe, Asia, or other region or topic of their choice.

2. Fulfills the baccalaureate capstone requirement.

**Note:** Geography majors are encouraged to reinforce their program focus with a minor in one of the following areas: Alaska Native studies, anthropology, Asian studies, economics, environmental politics, foreign languages, geographic information systems, geology, geophysics, global studies, history, journalism, natural resource management, Arctic and Northern studies, political science or rural development.

**Note:** Students and faculty advisors should carefully review prerequisites for courses outlined in each required and/or optional area. Some courses require successful completion of up to three prerequisite courses. Therefore, students and faculty should note that while the minimum degree credit hours are 120, the actual number of required course credits may exceed that number.

---

**B.S., Geography**

**Program Requirements**

**Admission to this program is currently suspended.**

Students must earn a C- grade or better in each course.

**Minimum Requirements for Geography**

**B.S.: 120 credits**

**Concentrations:** Environmental Studies (p. 235), Landscape Analysis and Climate Change Studies (p. 235), and Geospatial Sciences (p. 236)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG F311</td>
<td>Geography of Asia</td>
<td></td>
</tr>
<tr>
<td>GEOG F429</td>
<td>Geography of the Arctic and Circumpolar North</td>
<td></td>
</tr>
<tr>
<td>GEOG F460</td>
<td>The Dynamic Alaska Coastline</td>
<td></td>
</tr>
<tr>
<td>GEOG/GEOS F483</td>
<td>Research Design, Writing and Presentation Methods</td>
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</table>

**Code**

**Title**

**Credits**

**General University Requirements**

Complete the general university requirements. (p. 154)

**General Education Requirements**

Complete the general education requirements. (p. 157)

**B.S. Degree Requirements**

Complete the B.S. degree requirements. (p. 170)

As part of the B.S. degree requirements, complete:

- NRM F303X: Environmental Ethics and Actions
- MATH F230X: Essential Calculus with Applications
- MATH F251X: Calculus I

**Geography Program Requirements**

- GEOG F101X: Expedition Earth: Introduction to Geography
- GEOG F111X: Earth and Environment: Elements of Physical Geography
GEOG F312  People, Places and Environment: Principles of Human Geography  3
GEOG/NRM F338  Introduction to Geographic Information Systems  3
GEOG F483  Research Design, Writing and Presentation Methods  3
GEOG F490  Geography Seminar  3
GEOS F488  Undergraduate Research or GEOG F300  3
STAT F200X  Elementary Statistics or GEOS F430  3
or STAT F300  Statistics

Concentrations

Environmental Studies

Complete one of the following concentrations:  30-56

Landscape Analysis and Climate Change Studies

Geospatial Sciences

1 Completion of these three courses will fulfill the baccalaureate capstone requirement.

Concentrations

ENVIRONMENTAL STUDIES

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
</table>

As part of the general education requirements, complete:

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<th>Credits</th>
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<tr>
<td>CHEM F105X</td>
<td>General Chemistry I</td>
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<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL F115X</td>
<td>Fundamentals of Biology I</td>
<td></td>
</tr>
<tr>
<td>BIOL F116X</td>
<td>Fundamentals of Biology II</td>
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Program Requirements

Complete the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ATM F101X</td>
<td>Weather and Climate of Alaska</td>
<td>4</td>
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<tr>
<td>GEOG F339</td>
<td>Change Detection in Arctic Systems</td>
<td>4</td>
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</table>

Environmental Studies

Complete two from the following:  6-7

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>GEOG/GEOS/NRM</td>
<td>Geopolitics of Energy F423</td>
<td></td>
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<tr>
<td>GEOS F380</td>
<td>Geological Hazards</td>
<td></td>
</tr>
<tr>
<td>GEOS F480</td>
<td>Climate Change Processes: Past, Present, Future</td>
<td></td>
</tr>
<tr>
<td>or ATM F456</td>
<td>Climate and Climate Change</td>
<td></td>
</tr>
<tr>
<td>NRM F403</td>
<td>Environmental Decision-Making</td>
<td></td>
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<tr>
<td>NRM F407</td>
<td>Environmental Law</td>
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</table>

Environmental Systems

Complete three from the following:  9-10

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL F371</td>
<td>Principles of Ecology</td>
<td></td>
</tr>
<tr>
<td>GEOG F418</td>
<td>Biogeography</td>
<td></td>
</tr>
<tr>
<td>GEOG F460</td>
<td>The Dynamic Alaska Coastline</td>
<td></td>
</tr>
<tr>
<td>GEOS F304</td>
<td>Geomorphology</td>
<td></td>
</tr>
<tr>
<td>NRM F277</td>
<td>Introduction to Conservation Biology</td>
<td></td>
</tr>
<tr>
<td>NRM F380</td>
<td>Soils and the Environment</td>
<td></td>
</tr>
</tbody>
</table>

Environmental Management

Complete one of the following:  3

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>GEOG/NRM F464</td>
<td>Wilderness Management</td>
<td></td>
</tr>
<tr>
<td>NRM F365</td>
<td>Principles of Outdoor Recreation Management</td>
<td></td>
</tr>
<tr>
<td>NRM F370</td>
<td>Introduction to Watershed Management</td>
<td></td>
</tr>
<tr>
<td>NRM F430</td>
<td>Resource Management Planning</td>
<td></td>
</tr>
<tr>
<td>NRM F480</td>
<td>Soil Management for Quality and Conservation</td>
<td></td>
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</tbody>
</table>

Techniques

Complete one of the following:  3-4

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG F310</td>
<td>Digital Cartography and Geovisualization</td>
<td></td>
</tr>
<tr>
<td>GEOG/NRM F435</td>
<td>GIS Analysis</td>
<td></td>
</tr>
<tr>
<td>GEOS F422</td>
<td>Geoscience Applications of Remote Sensing</td>
<td></td>
</tr>
<tr>
<td>GEOS F458</td>
<td>Applications of GPS and GIS in Geophysics</td>
<td></td>
</tr>
<tr>
<td>NRM F366</td>
<td>Survey Research in Natural Resources Management</td>
<td></td>
</tr>
</tbody>
</table>

LANDSCAPE ANALYSIS AND CLIMATE CHANGE STUDIES

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
</table>

As part of the general education requirements, complete:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATM F101X</td>
<td>Weather and Climate of Alaska</td>
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</tr>
<tr>
<td>PHYS F123X</td>
<td>College Physics I</td>
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<tr>
<td>or PHYS F211X</td>
<td>General Physics I</td>
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Program Requirements

Complete the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>GEOS F480</td>
<td>Climate Change Processes: Past, Present, Future</td>
<td>4</td>
</tr>
<tr>
<td>or ATM F456</td>
<td>Climate and Climate Change</td>
<td></td>
</tr>
<tr>
<td>GEOS F304</td>
<td>Geomorphology</td>
<td>3</td>
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</table>

Landscape Processes

Complete three from the following:  9-10

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>GEOG F339</td>
<td>Change Detection in Arctic Systems</td>
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</tr>
<tr>
<td>GEOG F418</td>
<td>Biogeography</td>
<td></td>
</tr>
<tr>
<td>GEOG F460</td>
<td>The Dynamic Alaska Coastline</td>
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<tr>
<td>GEOG F616</td>
<td>Permafrost 11</td>
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Climate Change

Complete two from the following:  6

<table>
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<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ATM F456</td>
<td>Climate and Climate Change 2</td>
<td></td>
</tr>
<tr>
<td>or GEOS F480</td>
<td>Climate Change Processes: Past, Present, Future</td>
<td></td>
</tr>
<tr>
<td>NRM F302</td>
<td>Geography of Alaska</td>
<td></td>
</tr>
<tr>
<td>GEOG F429</td>
<td>Geography of the Arctic and Circumpolar North</td>
<td></td>
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</table>

Methods and Applications

Complete two from the following:  6-8

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>GEOG F310</td>
<td>Digital Cartography and Geovisualization</td>
<td></td>
</tr>
<tr>
<td>GEOG/NRM F435</td>
<td>GIS Analysis</td>
<td></td>
</tr>
<tr>
<td>GEOS F422</td>
<td>Geoscience Applications of Remote Sensing</td>
<td></td>
</tr>
<tr>
<td>GEOS F458</td>
<td>Applications of GPS and GIS in Geophysics</td>
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</table>
Graduate-level credit used to complete this undergraduate degree program may NOT be applied towards future graduate degree programs.

If ATM F456 or GEOS F480 is used in the 'Program Requirements' section, it cannot be used in the 'Climate Change' section.

**GEOSPATIAL SCIENCES**

<table>
<thead>
<tr>
<th>Code</th>
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<td>CS F103</td>
<td>Introduction to Computer Programming</td>
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<tr>
<td>GEOG F339</td>
<td>Change Detection in Arctic Systems</td>
<td>4</td>
</tr>
<tr>
<td>GEOG/NRM F435</td>
<td>GIS Analysis</td>
<td>4</td>
</tr>
<tr>
<td>GEOS F422</td>
<td>Geoscience Applications of Remote Sensing</td>
<td>3</td>
</tr>
</tbody>
</table>

**GIS/Remote Sensing**

Complete three from the following: 8-10

<table>
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<tr>
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<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>GE F371</td>
<td>Remote Sensing for Engineering</td>
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</tr>
<tr>
<td>GE F376</td>
<td>GIS Applications in Geological and Environmental Engineering</td>
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</tr>
<tr>
<td>GEOG F310</td>
<td>Digital Cartography and Geovisualization</td>
<td></td>
</tr>
<tr>
<td>GEOS F436</td>
<td>Beyond the Mouse: Computer Programming and Automation for Geoscientists</td>
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<tr>
<td>GEOS F458</td>
<td>Applications of GPS and GIS in Geophysics</td>
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<tr>
<td>NRM F369</td>
<td>GIS and Remote Sensing for Natural Resources</td>
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<tr>
<td>NRM F638</td>
<td>GIS Programming 1</td>
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<tr>
<td>NRM F641</td>
<td>Natural Resource Applications of Remote Sensing 1</td>
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</table>

**Landscape Study**

Complete two from the following: 6

<table>
<thead>
<tr>
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<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>GEOG F429</td>
<td>Geography of the Arctic and Circumpolar North</td>
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</tr>
<tr>
<td>GEOG F460</td>
<td>The Dynamic Alaska Coastline</td>
<td></td>
</tr>
<tr>
<td>GEOS F304</td>
<td>Geomorphology</td>
<td></td>
</tr>
</tbody>
</table>

Graduate-level credit used to complete this undergraduate degree program may NOT be applied towards future graduate degree programs.

Note: Students and faculty advisors should carefully review prerequisites for courses outlined in each required and/or optional area. Some courses require successful completion of up to three prerequisite courses. Therefore, while students and faculty should note minimum degree credit hours are 120, the actual number of required course credits may exceed that number.

### Minor, Geographic Information Systems

**Program Requirements**

Students must earn a C grade or better in each course.

### Minimum Requirements for Geographic Information Systems Minor: 15 credits

Complete four from the following: 12-15

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>GEOG F111X</td>
<td>Earth and Environment: Elements of Physical Geography</td>
<td></td>
</tr>
<tr>
<td>GEOG F338</td>
<td>Introduction to Geographic Information Systems</td>
<td></td>
</tr>
<tr>
<td>GEOG F339</td>
<td>Change Detection in Arctic Systems</td>
<td></td>
</tr>
<tr>
<td>GEOG F460</td>
<td>The Dynamic Alaska Coastline</td>
<td></td>
</tr>
<tr>
<td>GEOS F422</td>
<td>Geoscience Applications of Remote Sensing</td>
<td></td>
</tr>
<tr>
<td>GEOS F458</td>
<td>Applications of GPS and GIS in Geophysics</td>
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</table>

Complete one from the following: 3-4

<table>
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<th>Title</th>
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<tbody>
<tr>
<td>GEOG F300</td>
<td>Internship in Geography or Geoscience</td>
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<tr>
<td>GEOG F435</td>
<td>GIS Analysis</td>
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<td>GEOS F488</td>
<td>Undergraduate Research</td>
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</tr>
<tr>
<td>NRM F369</td>
<td>GIS and Remote Sensing for Natural Resources</td>
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### Minor, Geography

**Program Requirements**

Students must earn a C- grade or better in each course.

### Minimum Requirements for Geography Minor: 16 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>GEOG F101X</td>
<td>Expedition Earth: Introduction to Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEOG F111X</td>
<td>Earth and Environment: Elements of Physical Geography</td>
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<tr>
<td>GEOG electives</td>
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<td>9</td>
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### Geological Engineering

**B.S. Degree**

The mission of the geological engineering program is to advance and disseminate knowledge related to mineral and energy exploration, evaluation, development and production; engineering site selection, construction and construction material production; and groundwater and geo-environmental engineering including geologic hazards assessment, through creative teaching, research and public service with an emphasis on Alaska, the North and its diverse peoples.

Geological engineering deals with the application of geology in the environment. Properties of earth materials exploration activities, geophysical and geochemical prospecting, site investigations and engineering geology are all phases of geological engineering.

The program prepares students for employment with industry, consulting companies and government agencies.
The educational objectives of the geological engineering program are to produce:

1. Graduates who are employed in one of the following professional areas: mineral and energy exploration and development; geotechnical engineering; groundwater engineering; or geo-environmental engineering.
2. Graduates will possess technical knowledge required to meet the unique challenges of geological engineering problems germane to cold regions, especially Alaska.
3. Graduates will pursue life-long learning through continuing education opportunities, professional registration/certification, and/or graduate studies.

Minimum Requirements for Geological Engineering Bachelor’s Degree: 133 credits

Learn more about the bachelor’s degree in geological engineering (https://uaf.edu/academics/programs/bachelors/geological-engineering.php), including an overview of the program, career opportunities and more.

College of Engineering and Mines
Department of Mining and Geological Engineering (http://cem.uaf.edu/mingeo/)
907-474-7388

Programs
Degree
• B.S., Geological Engineering (p. 237)

B.S., Geological Engineering

Program Requirements
Students must earn a C- grade or better in each course.

Minimum Requirements for Geological Engineering B.S.: 133 credits

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<thead>
<tr>
<th>Code</th>
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<td>Introduction to Thermodynamics</td>
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<td>Introduction to Geological Engineering</td>
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<td>GE F261</td>
<td>General Geology for Engineers</td>
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<td>GE F365</td>
<td>Geological Materials Engineering</td>
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<td>GE F371</td>
<td>Remote Sensing for Engineering</td>
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<td>GE F375</td>
<td>Principles of Engineering Geology and Terrain Analysis</td>
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<td>GE F381</td>
<td>Field Methods and Applied Design I</td>
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<td>GE F382</td>
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<td>GE F405</td>
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<td>GE F420</td>
<td>Subsurface Hydrology</td>
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<td>GEOS F214</td>
<td>Petrology and Petrography</td>
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<td>GEOS F314</td>
<td>Structural Geology</td>
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<tr>
<td>GEOS F320</td>
<td>Sedimentology for Geological Engineers</td>
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<tr>
<td>MATH F253X</td>
<td>Calculus III</td>
<td>4</td>
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<tr>
<td>MATH F302</td>
<td>Differential Equations</td>
<td>3</td>
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<tr>
<td>MIN F202</td>
<td>Mine Surveying</td>
<td>3</td>
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<tr>
<td>MIN F225</td>
<td>Quantitative Methods in Mining Engineering</td>
<td>2-3</td>
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<tr>
<td></td>
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<td>MIN F370</td>
<td>Rock Mechanics</td>
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<td>MIN F408</td>
<td>Mineral Valuation and Economics</td>
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<td>CE F341</td>
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<td>CE F344</td>
<td>Water Resources Engineering</td>
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<td>CE F422</td>
<td>Foundation Engineering</td>
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<td>CE F424</td>
<td>Permafrost Engineering</td>
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<td>CE F442</td>
<td>Environmental Engineering Design</td>
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<td>CE F603</td>
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<td>ESM F422</td>
<td>Engineering Decisions</td>
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<td>GE F322</td>
<td>Erosion Mechanics and Conservation</td>
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<td>GE F376</td>
<td>GIS Applications in Geological and Environmental Engineering</td>
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<td>GE F384</td>
<td>Engineering Geology of Alaska</td>
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<td>GE F400</td>
<td>Geological Engineering Internship</td>
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<tr>
<td>GE F422</td>
<td>Soil Physics</td>
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<tr>
<td>GE F430</td>
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<td>GE F441</td>
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<td>GE F445</td>
<td>Design of Earth Dams and Embankments</td>
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<td>GEOS F332</td>
<td>Ore Deposits and Structure</td>
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<td>MIN F443</td>
<td>Principles and Applications of Industrial Explosives</td>
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<td>MIN F482</td>
<td>Computer-aided Mine Design:VULCAN</td>
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<td>NRM F435</td>
<td>GIS Analysis</td>
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<tr>
<td>PETE F302</td>
<td>Well Logging</td>
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University of Alaska Fairbanks 2020-2021 237
Geoscience

B.S. Degree

Graduates in geoscience have broad backgrounds in the earth sciences and firm foundations in mathematics, physics and chemistry. Four concentrations are available to allow students to pursue their own emphasis:

- geology
- paleontology
- geospatial science
- geophysics

The concentrations allow students to focus early in their studies but are flexible enough to allow students to pursue their own interests in their junior and senior years. All the concentrations prepare students for industry jobs in oil, mining and environmental consulting; jobs with agencies such as the U.S. Geological Survey, NASA, the Alaska Division of Geological and Geophysical Surveys; or graduate studies.

The geology concentration offers students a sound background in a spectrum geological disciplines with an emphasis on current field mapping techniques essential to exploration and research. The paleontology concentration is designed to provide students with the skills necessary to locate, excavate, interpret and curate specimens for museums, agencies or universities. The geospatial sciences concentration focuses on the principles, techniques and applications of remote sensing, GIS and GPS to prepare students for careers that require geospatial data analysis and visualization. The geophysics concentration challenges students to use physics in understanding geoscience concepts, emphasizing applications in seismology, volcanology and glaciology in the context of the Alaska landscape. This concentration prepares students for graduate work in geophysics and environmental engineering fields or other disciplines that use geophysical tools such as ground-penetrating radar or exploration seismology.

Minimum Requirements for Geoscience Bachelor’s Degree: 120 credits

Learn more about the bachelor’s degree in geoscience (https://uaf.edu/academics/programs/bachelors/geoscience.php), including an overview of the program, career opportunities and more.

College of Natural Science and Mathematics
Department of Geosciences (http://www.uaf.edu/geology/)
907-474-7565

Programs

Degree

- B.S., Geoscience (p. 238)

Minors

- Minor, Geology (p. 240)
- Minor, Paleontology (p. 241)
- Minor, Geospatial Sciences (p. 240)
- Minor, Geophysics (p. 240)

B.S., Geoscience

Program Requirements

Students must earn a C- grade or better in each course.

Minimum Requirements for Geoscience B.S.: 120 credits

CONCENTRATIONS: GEOLOGY (P. 238), GEOPHYSICS (P. 240), GEOSPATIAL SCIENCES (P. 239) AND PALEONTOLOGY (P. 239)

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<tr>
<td>CHEM F106X</td>
<td>General Chemistry II</td>
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<td>GEOS F101X</td>
<td>The Dynamic Earth</td>
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<td>GEOS F112X</td>
<td>The History of Earth and Life</td>
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<td>GEOS F309</td>
<td>Tectonics</td>
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Concentrations

Geology

Paleontology

Geospatial Sciences

Geophysics

Concentrations

GEOLOGY

Program Requirements

Complete the following:

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<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<td>GEOS F213</td>
<td>Mineralogy</td>
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<tr>
<td>GEOS F214</td>
<td>Petrology and Petrography</td>
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<tr>
<td>GEOS F225</td>
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<tr>
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<td>GEOS F304</td>
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<td>GEOS F315</td>
<td>Paleobiology and Paleontology</td>
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<td>GEOS F322</td>
<td>Stratigraphy and Sedimentation</td>
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<td>GEOS F430</td>
<td>Statistics and Data Analysis in Geology</td>
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<td>GEOS F454</td>
<td>Field Geology</td>
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<td>Elementary Statistics</td>
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<tr>
<td>or STAT F300</td>
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Complete 12 additional credits of upper-division GEOS courses or other upper-division courses approved by the undergraduate advisor including one course from the following:

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<td>GEOS F317</td>
<td>Paleontological Research and Laboratory Methods</td>
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<tr>
<td>GEOS F375</td>
<td>Oral Communication Skills for Geoscientists</td>
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</tr>
<tr>
<td>GEOG F423</td>
<td>Geopolitics of Energy</td>
<td></td>
</tr>
<tr>
<td>GEOG F429</td>
<td>Geography of the Arctic and Circumpolar North</td>
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<tr>
<td>GEOG F483</td>
<td>Research Design, Writing and Presentation Methods</td>
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<tr>
<td>GEOG F490</td>
<td>Geography Seminar</td>
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<tr>
<td>GEOG F493</td>
<td>Special Topics</td>
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1. GEOS F454 is offered at UAF during the summer of odd-numbered years. Students may substitute a 6-credit field geology class at another institution. The geology and geophysics undergraduate advisor will assist students in placement in an approved field geology class.

2. Fulfills the baccalaureate capstone requirement.

### PALEONTOLOGY

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<tr>
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Complete at least two from the following electives: 5-7

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<td>GEOS F485</td>
<td>Mass Extinctions, Neocatastrophism and the History of Life</td>
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<td>GEOS F486</td>
<td>Vertebrate Paleontology</td>
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<tr>
<td>GEOS F488</td>
<td>Undergraduate Research</td>
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Complete the requirements for a minor in biological sciences 20

1. GEOS F454 is offered at UAF during the summer of odd-numbered years. Students may substitute a 6-credit field geology class at another institution. The geology and geophysics undergraduate advisor will assist students in placement in an approved field geology class.

2. Fulfills the baccalaureate capstone requirement.

### GEOSPATIAL SCIENCES

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<td>GEOS F214</td>
<td>Petrology and Petrography</td>
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<td>GEOS/GEOG F222</td>
<td>Fundamentals of Geospatial Science</td>
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### Electives

#### Remote sensing electives

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<td>GEOS F422</td>
<td>Geoscience Applications of Remote Sensing</td>
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<td>GEOS F488</td>
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<td>NRM F641</td>
<td>Natural Resource Applications of Remote Sensing</td>
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#### GIS electives

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<td>GEOG F435</td>
<td>GIS Analysis</td>
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<tr>
<td>GEOS F458</td>
<td>Applications of GPS and GIS in Geophysics</td>
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<td>NRM F338</td>
<td>Introduction to Geographic Information Systems</td>
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Complete 9 additional credits of upper-division GEOS courses or other upper-division courses approved by the undergraduate advisor including one course from the following:

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Complete one additional course from the following:

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<td>GEOS F315</td>
<td>Paleobiology and Paleontology</td>
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1 GEOS F454 is offered at UAF during the summer of odd-numbered years. Students may substitute a 6-credit field geology class at another institution. The geology and geophysics undergraduate advisor will assist students in placement in an approved field geology class.

2 Fulfills the baccalaureate capstone requirement.

3 Or equivalent course approved by undergraduate advisor.

**GEOPHYSICS**

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<tr>
<td>GEOS F375</td>
<td>Oral Communication Skills for</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Geoscientists</td>
<td></td>
</tr>
<tr>
<td>GEOS F406</td>
<td>Volcanology</td>
<td>3</td>
</tr>
<tr>
<td>GEOS F419</td>
<td>Solid Earth Geophysics</td>
<td>3</td>
</tr>
<tr>
<td>GEOS F431</td>
<td>Foundations of Geophysics</td>
<td>4</td>
</tr>
<tr>
<td>GEOS F477</td>
<td>Ice in the Climate System</td>
<td>3</td>
</tr>
<tr>
<td>GEOS F488</td>
<td>Undergraduate Research</td>
<td>2</td>
</tr>
<tr>
<td>GEOS F483</td>
<td>Research Design, Writing and</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Presentation Methods</td>
<td></td>
</tr>
<tr>
<td>MATH F252X</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>MATH F253X</td>
<td>Calculus III</td>
<td>4</td>
</tr>
<tr>
<td>MATH F302</td>
<td>Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>MATH F314</td>
<td>Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>PHYS F211X</td>
<td>General Physics I</td>
<td>8</td>
</tr>
<tr>
<td>and PHYS F212X</td>
<td>and General Physics II</td>
<td></td>
</tr>
<tr>
<td>PHYS F213X</td>
<td>Elementary Modern Physics</td>
<td>4</td>
</tr>
<tr>
<td>PHYS F220</td>
<td>Introduction to Computational Physics</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Complete two of the following science and engineering electives or undergraduate advisor approved substitute:</td>
<td>6-8</td>
</tr>
<tr>
<td>ES F331</td>
<td>Mechanics of Materials</td>
<td></td>
</tr>
<tr>
<td>ES F341</td>
<td>Fluid Mechanics</td>
<td></td>
</tr>
<tr>
<td>GEOS F314</td>
<td>Structural Geology</td>
<td></td>
</tr>
<tr>
<td>GEOS F322</td>
<td>Stratigraphy and Sedimentation</td>
<td></td>
</tr>
<tr>
<td>GEOS F422</td>
<td>Geoscience Applications of Remote Sensing</td>
<td></td>
</tr>
<tr>
<td>ME F441</td>
<td>Heat and Mass Transfer</td>
<td></td>
</tr>
<tr>
<td>PHYS F301</td>
<td>Introduction to Mathematical Physics</td>
<td></td>
</tr>
</tbody>
</table>

**Minor, Geophysics**

**Program Requirements**

Students must earn a C- grade or better in each course.

**Minimum Requirements for Geophysics Minor: 21 credits**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOS F101X</td>
<td>The Dynamic Earth</td>
<td>4</td>
</tr>
<tr>
<td>GEOS F112X</td>
<td>The History of Earth and Life</td>
<td>4</td>
</tr>
<tr>
<td>GEOS F406</td>
<td>Volcanology</td>
<td>3</td>
</tr>
<tr>
<td>GEOS F419</td>
<td>Solid Earth Geophysics</td>
<td>3</td>
</tr>
<tr>
<td>GEOS F431</td>
<td>Foundations of Geophysics</td>
<td>4</td>
</tr>
<tr>
<td>GEOS F477</td>
<td>Ice in the Climate System</td>
<td>3</td>
</tr>
</tbody>
</table>

**Minor, Geospatial Sciences**

**Program Requirements**

Students must earn a C- grade or better in each course.

**Minimum Requirements for Geospatial Sciences Minor: 19 credits**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOS F101X</td>
<td>The Dynamic Earth</td>
<td>4</td>
</tr>
<tr>
<td>GEOS F112X</td>
<td>The History of Earth and Life</td>
<td>4</td>
</tr>
<tr>
<td>GEOS/GEOG F222</td>
<td>Fundamentals of Geospatial Science</td>
<td>3</td>
</tr>
<tr>
<td>GEOS F225</td>
<td>Field and Computer Methods in Geology</td>
<td>2</td>
</tr>
<tr>
<td>GEOS F422</td>
<td>Geoscience Applications of Remote Sensing</td>
<td></td>
</tr>
</tbody>
</table>
GEOS F458  Applications of GPS and GIS in Geophysics  3

Minor, Paleontology

Program Requirements

Students must earn a C- grade or better in each course.

Minimum Requirements for Paleontology Minor: 16-20 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOS F101X</td>
<td>The Dynamic Earth</td>
<td>4</td>
</tr>
<tr>
<td>GEOS F112X</td>
<td>The History of Earth and Life</td>
<td>4</td>
</tr>
<tr>
<td>GEOS F315</td>
<td>Paleobiology and Paleontology</td>
<td>4</td>
</tr>
<tr>
<td>GEOS F317</td>
<td>Paleontological Research and Laboratory Methods</td>
<td>4</td>
</tr>
<tr>
<td>GEOS F322</td>
<td>Stratigraphy and Sedimentation</td>
<td>4</td>
</tr>
<tr>
<td>GEOS F453</td>
<td>Palynology and Paleopalynology</td>
<td>4</td>
</tr>
<tr>
<td>GEOS F485</td>
<td>Mass Extinctions, Neocatastrophism and the History of Life</td>
<td>4</td>
</tr>
<tr>
<td>GEOS F486</td>
<td>Vertebrate Paleontology</td>
<td>4</td>
</tr>
</tbody>
</table>

Global Studies

Minor Only

This interdisciplinary program enhances students’ understanding of issues resulting from an increasingly interdependent world and giving students an opportunity to broaden their horizons beyond their chosen major and achieve a more integrated vision of contemporary global problems, alternative concepts of global society, and strategies for moving toward a more just and humane world order.

The program’s flexibility allows students, in consultation with their advisor, to select an array of courses and co-curricular experiences that best complement their majors as well as their goals for their careers and/or postbaccalaureate education.

Global studies students are encouraged to pursue opportunities for study abroad and foreign language acquisition as part of their minor requirements. Working with their advisor and the UA Office of International Programs and Initiatives, global studies students may discover ways to build on their UAF course work and satisfy a significant portion of their global studies minor requirements at a foreign college or university.

College of Liberal Arts (http://www.uaf.edu/cla/)
907-474-7231

Programs

Minor

- Minor, Global Studies (p. 241)

Minor, Global Studies

Minimum Requirements for Global Studies Minor: 16-18 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH F245</td>
<td>Culture and Global Issues</td>
<td>3</td>
</tr>
<tr>
<td>ANTH F428</td>
<td>Ecological Anthropology and Regional Sustainability</td>
<td>3</td>
</tr>
<tr>
<td>BIOL F476</td>
<td>Ecosystem Ecology</td>
<td>3</td>
</tr>
<tr>
<td>COJO F330</td>
<td>Intercultural Communication</td>
<td>3</td>
</tr>
<tr>
<td>COJO F353</td>
<td>Conflict, Mediation and Communication</td>
<td>3</td>
</tr>
<tr>
<td>COJO F451</td>
<td>Cross-cultural Conflict Analysis and Intervention</td>
<td>3</td>
</tr>
<tr>
<td>ENGL F218</td>
<td>Themes in Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL F280</td>
<td>Introduction to Colonial and Postcolonial Literature</td>
<td>3</td>
</tr>
<tr>
<td>GEOG F203</td>
<td>World Economic Geography</td>
<td>3</td>
</tr>
<tr>
<td>LING F216X</td>
<td>Languages of the World</td>
<td>3</td>
</tr>
<tr>
<td>PS F202</td>
<td>Democracy and Global Society</td>
<td>3</td>
</tr>
</tbody>
</table>

Global Studies Minor Program Requirements

Complete four from the following with no more than two courses (6 credits) from the same department:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH F315</td>
<td>Human Variation</td>
<td>3</td>
</tr>
<tr>
<td>ANTH F446</td>
<td>Economic Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL F300</td>
<td>Rural Development in a Global Perspective</td>
<td>3</td>
</tr>
<tr>
<td>HIST F316</td>
<td>Europe Since 1945</td>
<td>3</td>
</tr>
<tr>
<td>HIST F411</td>
<td>Environmental History</td>
<td>3</td>
</tr>
<tr>
<td>PHIL/PS F472</td>
<td>Ethics in International Affairs</td>
<td>3</td>
</tr>
<tr>
<td>PS F201X</td>
<td>Comparative Politics</td>
<td>3</td>
</tr>
<tr>
<td>PS F304</td>
<td>International Security</td>
<td>3</td>
</tr>
<tr>
<td>PS F322</td>
<td>International Law and Organization</td>
<td>3</td>
</tr>
<tr>
<td>PS F323</td>
<td>International Political Economy</td>
<td>3</td>
</tr>
<tr>
<td>PS F454</td>
<td>International Law and the Environment</td>
<td>3</td>
</tr>
<tr>
<td>PS F455</td>
<td>Political Economy of the Global Environment</td>
<td>3</td>
</tr>
<tr>
<td>PS F456</td>
<td>Science, Technology and Politics</td>
<td>3</td>
</tr>
<tr>
<td>RD F300</td>
<td>Rural Development in a Global Perspective</td>
<td>3</td>
</tr>
<tr>
<td>SOC F405</td>
<td>Social Movements and Social Change</td>
<td>3</td>
</tr>
<tr>
<td>SOC F460</td>
<td>Global Issues in Sociological Perspective</td>
<td>3</td>
</tr>
</tbody>
</table>

Civic engagement/internship project 1

1-3
Complete a variable credit civic engagement/internship project working collaboratively with one of the faculty in the student’s primary course interest. The number of credits will be determined by the student’s advisor based on the number of hours worked in the nature of the academic component of the internship or project.

Note: The program in global studies also strongly encourages students to study abroad for at least one semester, and to work toward fluency in a second language.

Because of the flexibility of the program and the internship requirement, it will be important for students to work closely with an advisor familiar with the program. Please contact the program coordinator with any questions you may have about the program.

For more information and advising:
Peter A. DeCaro
Program Coordinator
907-474-6799
padecaro@alaska.edu

History
B.A. Degree

The History Department prepares students to critically analyze and interpret cultural heritage, the great problems that have faced humans throughout history and how we have sought to solve them.

If you enjoy studying and researching major cultural, social, economic and political events of the past, then a B.A. in history may be for you. Through our program, you will develop skills in oral and written presentation, research and critical thinking, and gain a greater awareness of the human condition. Our students also acquire an appreciation of the complexity of the discipline, an understanding that historical narratives are constructed, contested and always changing, and the recognition that there are varied perspectives on the past.

As liberal arts majors, history prepares students for a multitude of careers in the public, private and nonprofit sectors. History graduates may find work as educators, researchers and analysts, public relations representatives, advocates, and business professionals.

Minimum Requirements for History Bachelor’s Degree: 120 credits

Learn more about the bachelor’s degree in history (https://uaf.edu/academics/programs/bachelors/history.php), including an overview of the program, career opportunities and more.

College of Liberal Arts
Department of History (http://www.uaf.edu/history/)
907-474-7126

Programs
Degree

• B.A., History (p. 242)

Minor

• Minor, History (p. 242)

B.A., History

Program Requirements

Students must earn a C- grade or better in each course.

Minimum Requirements for History B.A.: 120 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>General University Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (p. 154)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>General Education Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general education requirements. (p. 157)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>As part of the general education requirements, complete:</td>
<td></td>
</tr>
<tr>
<td>HIST F100X</td>
<td>Modern World History</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>B.A. Degree Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the B.A. degree requirements. (p. 164)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>History Program Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete three from the following:</td>
<td></td>
</tr>
<tr>
<td>HIST F101</td>
<td>Western Civilization</td>
<td>9</td>
</tr>
<tr>
<td>HIST F102X</td>
<td>Western Civilization Since 1500</td>
<td></td>
</tr>
<tr>
<td>HIST F121</td>
<td>East Asian Civilization</td>
<td></td>
</tr>
<tr>
<td>HIST F122X</td>
<td>East Asian Civilization</td>
<td></td>
</tr>
<tr>
<td>HIST F131</td>
<td>History of the U.S.</td>
<td></td>
</tr>
<tr>
<td>HIST F132X</td>
<td>History of the U.S.</td>
<td></td>
</tr>
<tr>
<td>HIST F275</td>
<td>Perspectives on History</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Five HIST courses at the F300 or F400 level, at least two of</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>which must be at the F400 level</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Of the courses for the major, at least two (at any level) must be taken in each of the following three fields:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>United States history</td>
<td></td>
</tr>
<tr>
<td></td>
<td>European history</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other areas, such as:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Northern history (including Alaska)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>World or non-Western (non-U.S., non-European) history</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Women’s history</td>
<td></td>
</tr>
<tr>
<td>HIST F475</td>
<td>Historiography Capstone</td>
<td>3</td>
</tr>
<tr>
<td>HIST F476</td>
<td>Senior Thesis Capstone</td>
<td>3</td>
</tr>
</tbody>
</table>

1 These courses must be approved by an advisor.
2 Fulfills the baccalaureate capstone requirement.

Note: Students who are considering graduate work in history are strongly urged to take at least two years of a foreign language.

Note: History majors are strongly urged to consult with the History Department regarding the selection of a minor.

Minor, History

Program Requirements

Students must earn a C- grade or better in each course.
Minimum Requirements for History Minor:
18 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST electives at the F300 level or above</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>HIST electives</td>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>

Homeland Security and Emergency Management
B.S.E.M. Degree

In a post-9/11 environment, the challenges faced by emergency management and homeland security professionals have reached unprecedented levels. As we experience an increase in the frequency, complexity and severity of manmade, natural and technological disasters, ever-increasing demands have been placed on emergency professionals and the skill sets required to succeed. Today, more so than ever before, the integration of federal, state and local resources, communication, and collaboration has become the norm. Issues concerning terrorism, cyber-security, critical infrastructure protection and management, risk, business continuity, fire, hazardous materials, law enforcement, public health, and safety are no longer domains unto themselves but are now part of the new fabric of this highly integrated and complex environment. Consequently, more is now required and expected of our traditional first responders and those charged with the leadership and management roles of these individuals and organizations.

The bachelor of security and emergency management program focuses on developing skills to lead and manage individuals and organizations in an increasingly complex environment. The program builds upon an individual’s technical capabilities derived from education, training and experience in fire, information technology, law enforcement, military, homeland security, and emergency management or other related fields. This technical expertise is combined with a curriculum of business administration, emergency management and homeland security-based instruction. This focus gives students the operations management knowledge to lead and manage individuals, departments or agencies on a day-to-day basis as well as during times of crisis at the local, regional, national or international levels. The bachelor of security and emergency management degree is built specifically to meet the needs of practitioners who provide administrative oversight, leadership or management roles within the homeland security and emergency management enterprise at the local, state, federal and international levels. The degree also provides those at the responder level the opportunity to further their education, increase their competitive advantage for promotion, and advance their operational understanding of the highly integrated emergency management and homeland security environment of today.

Minimum Requirements for Homeland Security and Emergency Management B.S.E.M. Degree: 120 credits

Learn more about the bachelor’s degree in homeland security and emergency management (https://uaf.edu/academics/programs/bachelors/security-emergency-management.php), including an overview of the program, career opportunities and more.

Learn more about the online (https://uaf.edu/academics/programs/bachelors/security-emergency-management-online.php)bachelor’s degree in homeland security and emergency management (https://uaf.edu/academics/programs/bachelors/security-emergency-management.php), including an overview of the program, career opportunities and more.

School of Management
Department of Homeland Security and Emergency Management
907-474-7461
Bachelor of Security and Emergency Management (http://www.uaf.edu/som/degrees/undergraduate/bsem/)

Programs
Degree
- B.S.E.M., Homeland Security and Emergency Management (p. 243)

Minors
- Minor, Emergency Management (p. 244)
- Minor, Military Security Studies (p. 245)

B.S.E.M., Homeland Security and Emergency Management

Program Requirements
Students must earn a C- grade or better in each course.

Minimum Requirements for Homeland Security and Emergency Management Bachelor's Degree: 120 credits

CONCENTRATIONS: CYBERSECURITY AND INFORMATION TECHNOLOGY MANAGEMENT (P. 244), EMERGENCY MANAGEMENT (P. 244), EMERGENCY MEDICAL AND PUBLIC HEALTH MANAGEMENT (P. 244), FIRE ADMINISTRATION (P. 244), HOMELAND SECURITY (P. 244), LAW ENFORCEMENT MANAGEMENT (P. 244)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General University Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (p. 154)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>General Education Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general education requirements. (p. 157)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>B.S.E.M. Degree Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the B.S.E.M. degree requirements. (p. 172)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Homeland Security and Emergency Management Program Requirements</td>
<td>33</td>
</tr>
<tr>
<td>BA F307</td>
<td>Introductory Human Resources Management</td>
<td>3</td>
</tr>
<tr>
<td>BA F457</td>
<td>Training and Management Development</td>
<td>3</td>
</tr>
<tr>
<td>HSEM/ACCT F271</td>
<td>Fiscal Management for Emergency Management Operations</td>
<td>3</td>
</tr>
<tr>
<td>HSEM F301</td>
<td>Principles of Emergency Management and Homeland Security</td>
<td>3</td>
</tr>
<tr>
<td>HSEM F412</td>
<td>Emergency Planning and Preparedness</td>
<td>3</td>
</tr>
<tr>
<td>HSEM F423</td>
<td>Disaster Response Operations and Management</td>
<td>3</td>
</tr>
<tr>
<td>Code</td>
<td>Title</td>
<td>Credits</td>
</tr>
<tr>
<td>----------</td>
<td>------------------------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>HSEM F434</td>
<td>All-hazards Risk Analysis</td>
<td>3</td>
</tr>
<tr>
<td>HSEM F445</td>
<td>Business Continuity and Crisis Management</td>
<td>3</td>
</tr>
<tr>
<td>HSEM F456</td>
<td>Leadership in Dangerous Contexts</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete one of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA F390</td>
<td>Organizational Theory and Behavior</td>
<td></td>
</tr>
<tr>
<td>BA F391</td>
<td>Alaska Native Corporations: A Historical and Contemporaneous Perspective</td>
<td></td>
</tr>
<tr>
<td>HSEM F461</td>
<td>Human Security in Alaska</td>
<td></td>
</tr>
</tbody>
</table>

Complete 12 credits from the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>URSA</td>
<td>Any course</td>
<td></td>
</tr>
<tr>
<td>HSEM</td>
<td>Any course not counted in major requirements</td>
<td></td>
</tr>
<tr>
<td>BA F330</td>
<td>The Legal Environment of Business</td>
<td></td>
</tr>
<tr>
<td>BA F317</td>
<td>Employment Law</td>
<td></td>
</tr>
<tr>
<td>BA F490</td>
<td>Services Marketing</td>
<td></td>
</tr>
<tr>
<td>COJO F300X</td>
<td>Communicating Ethics</td>
<td></td>
</tr>
<tr>
<td>COJO F335</td>
<td>Organizational Communication</td>
<td></td>
</tr>
<tr>
<td>COJO F353</td>
<td>Conflict, Mediation and Communication</td>
<td></td>
</tr>
<tr>
<td>ECON F201X</td>
<td>Principles of Economics I: Microeconomics</td>
<td></td>
</tr>
<tr>
<td>ENGL F314</td>
<td>Technical Writing</td>
<td></td>
</tr>
<tr>
<td>GEOS F380</td>
<td>Geological Hazards</td>
<td></td>
</tr>
<tr>
<td>HSEM F452</td>
<td>Internship in Emergency Management</td>
<td></td>
</tr>
<tr>
<td>JUST F222</td>
<td>Research Methods</td>
<td></td>
</tr>
<tr>
<td>PS F304</td>
<td>International Security</td>
<td></td>
</tr>
<tr>
<td>PSY F250</td>
<td>Introductory Statistics for Social Sciences</td>
<td></td>
</tr>
<tr>
<td>STAT F200X</td>
<td>Elementary Statistics</td>
<td></td>
</tr>
</tbody>
</table>

**Concentrations**

Complete one from the following concentrations:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSEM F415</td>
<td>Cybersecurity in the 21st Century: Technology and Ethics</td>
<td></td>
</tr>
<tr>
<td>HSEM F416</td>
<td>Cybersecurity Management</td>
<td></td>
</tr>
<tr>
<td>HSEM F417</td>
<td>Cybersecurity Resiliency</td>
<td></td>
</tr>
<tr>
<td>HSEM F418</td>
<td>Cybercrime, Fraud and Law</td>
<td></td>
</tr>
</tbody>
</table>

**Emergency Management**

Complete 6 credits from the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSEM F405</td>
<td>Introduction to Emergency Management Exercise Design</td>
<td></td>
</tr>
<tr>
<td>HSEM F407</td>
<td>Comparative Emergency Management</td>
<td></td>
</tr>
</tbody>
</table>

**Emergency Medical and Public Health Management**

Complete 6 credits from the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSEM F402</td>
<td>Incident Command for Emergency Medical Services</td>
<td></td>
</tr>
<tr>
<td>HSEM F403</td>
<td>Public Health in Emergencies</td>
<td></td>
</tr>
<tr>
<td>HSEM F405</td>
<td>Introduction to Emergency Management Exercise Design</td>
<td></td>
</tr>
</tbody>
</table>

**Fire Administration**

Complete the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSEM F439</td>
<td>Supervising Emergency Services</td>
<td></td>
</tr>
<tr>
<td>HSEM F440</td>
<td>Advanced Principles of Fire Service Administration</td>
<td></td>
</tr>
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</table>

**Homeland Security**

Complete the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSEM F406</td>
<td>Comparative Homeland Security</td>
<td></td>
</tr>
<tr>
<td>HSEM F408</td>
<td>Homeland Defense and Security</td>
<td></td>
</tr>
</tbody>
</table>

**Law Enforcement Management**

Complete 6 credits from the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSEM F404</td>
<td>Public Safety Instruction</td>
<td></td>
</tr>
<tr>
<td>HSEM F418</td>
<td>Cybercrime, Fraud and Law</td>
<td></td>
</tr>
<tr>
<td>HSEM F467</td>
<td>Current Topics in Public Safety</td>
<td></td>
</tr>
</tbody>
</table>

**Minor, Emergency Management**

**Program Requirements**

Students must earn a C- grade or better in each course.

Note: Of the above, at least 39 credits must be taken in upper-division (F300-level or higher) courses.
Minimum Requirements for Emergency Management Minor: 15 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSEM F301</td>
<td>Principles of Emergency Management and Homeland Security</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete three from the following: 9 credits

- HSEM F412 Emergency Planning and Preparedness
- HSEM F423 Disaster Response Operations and Management
- HSEM F434 All-hazards Risk Analysis
- HSEM F445 Business Continuity and Crisis Management
- HSEM F456 Leadership in Dangerous Contexts

Complete at least 3 credits from the following: 1 credit

- BA F317 Employment Law
- BA F490 Services Marketing
- COJO F335 Organizational Communication
- COJO F353 Conflict, Mediation and Communication
- GEOS F120X Glaciers, Earthquakes and Volcanoes: Past, Present and Future
- GEOS/GEOG F222 Fundamentals of Geospatial Science
- HSEM F452 Internship in Emergency Management

Or course(s) pre-approved by the program director.

Minor, Military Security Studies

Program Requirements

Students must earn a C-grade or better in each course.

Minimum Requirements for Military Security Studies Minor: 16 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MILS electives</td>
<td></td>
<td>10</td>
</tr>
</tbody>
</table>

Complete two from the following: 6 credits

- HSEM F301 Principles of Emergency Management and Homeland Security
- HSEM F412 Emergency Planning and Preparedness
- HSEM F423 Disaster Response Operations and Management
- HSEM F434 All-hazards Risk Analysis
- HSEM F445 Business Continuity and Crisis Management
- HSEM F456 Leadership in Dangerous Contexts
- MILS F442 History of the American Military

Option 1: Complete one concentration in human services

Option 2: Complete HUMS elective credits

Human Services

Students in the human services program receive skills-based training within a foundation of theory. After completing foundation courses, students select an area of concentration from the following: addictions counseling, behavioral health, or interdisciplinary concentration. Students learn interviewing and assessment, case management, crisis intervention, group counseling techniques and other specific skills needed within their concentration area.

The program prepares students for entry-level positions in human services agencies. Persons with a strong desire to help others, sincere respect for humankind and a commitment to their own personal growth may find this field rewarding. They must be emotionally stable, flexible and interested in working with people of diverse social, cultural and economic backgrounds from themselves. Recovery from life traumas and addictions can be a positive attribute if the student has successfully worked through specific issues and is willing to continue personal growth.

Students who complete an addictions concentration are eligible for certification as chemical dependency counselor technicians through the Alaska Commission for Behavioral Health Certification.

Each concentration is available to B.A. degree students as a minor. Option 1: The B.A. degree student must complete the concentration and three HUMS elective credits. Concentrations provide students with the skills needed for employment. See minor requirements. Option 2: Complete HUMS-approved elective credits (18 credits of electives must be approved by the human services program lead faculty).

This degree program is delivered collaboratively through the Community and Technical College in Fairbanks and the Kuskokwim Campus in Bethel.

College of Rural and Community Development
Department of Human Services (https://www.ctc.uaf.edu/programs/human-services/)
907-474-7143

Programs

- Minor, Human Services (p. 245)

Minor, Human Services

Students must earn a C grade or better in each course.

Minimum Requirements for Human Services Minor: 18 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MILS electives</td>
<td></td>
<td>18</td>
</tr>
</tbody>
</table>

Option 1: Complete one from the following options:

- Complete one concentration in human services
- Complete HUMS elective credits

Option 2: Complete HUMS-approved elective credits
Electives for Option 2 must be approved by the human services program lead faculty.

Interdisciplinary Studies

B.A., B.A.A.S., B.S. Degrees

The interdisciplinary program provides flexibility to students who have educational goals that do not fit into one of the established majors or minors offered by the university. There are two interdisciplinary bachelor’s degree tracks: Goals Option and Degree Completion. Help with the undergraduate application process, contact information for faculty advisors and assistance for undergraduate interdisciplinary students is available at 907-474-6396, or at the interdisciplinary studies website (http://www.uaf.edu/inds/).

GOALS OPTION

An interdisciplinary major allows students to customize and create a major or minor that is unique and different from the majors and minors offered by UAF. Interdisciplinary majors must include courses from at least two different disciplines that focus on a shared theme. To be admitted into the interdisciplinary goals option, students must write a proposal describing the intended name and a description of their major. Interdisciplinary students must also choose a committee of at least three faculty members from at least two disciplines to help guide in the selection of courses and ultimately approve their proposal and the major’s content. One faculty member will serve as the committee chair and the advisor of the student. The committee chair must be from a baccalaureate degree-awarding department. All interdisciplinary proposals will be reviewed by the dean of the committee chair and the UAF vice provost for final approval.

DEGREE COMPLETION (MAY NOT BE USED AS A DOUBLE MAJOR)

The interdisciplinary studies major with a general studies concentration is a pathway to graduation for students who are unable to complete a particular major offered at UAF. Students in the general studies concentration have the flexibility to choose classes that are meaningful and relevant to their educational interests and career goals. Admission to the Degree Completion program requires a 2.0 cumulative GPA or higher, completion of at least 100 or more college credits, as well as a consultation with a degree completion advisor located in the Academic Advising Center. Students must submit a letter of rationale explaining why this program is an appropriate path to graduation for them in order to be admitted to the general studies concentration of the interdisciplinary major.

Minimum Requirements for Interdisciplinary Studies, B.A., B.A.A.S., B.S. Degrees: 120-130 credits

Learn more about the bachelor’s degree in interdisciplinary studies (https://uaf.edu/academics/programs/bachelors/interdisciplinary-studies.php), including an overview of the program, career opportunities and more.

Academic Advising Center - Division of General Studies
Interdisciplinary Studies (http://www.uaf.edu/inds/)
907-474-6396

Programs

Degrees

• B.A., Interdisciplinary Studies - General Studies Concentration (Degree Completion) (p. 246)
• B.A., Interdisciplinary Studies - Goals Option (p. 247)
• B.S., Interdisciplinary Studies - General Studies Concentration (Degree Completion) (p. 249)
• B.S., Interdisciplinary Studies - Goals Option (p. 250)
• B.A.A.S., Interdisciplinary Studies - General Studies Concentration (Degree Completion) (p. 248)
• B.A.A.S., Interdisciplinary Studies - Goals Option (p. 248)

• Minor
• Minor - Interdisciplinary Studies (p. 251)

B.A., Interdisciplinary Studies, General Studies Concentration

Admission Requirements

Admission process for an interdisciplinary studies major with a general studies concentration

1. Contact the Academic Advising Center at 907-474-6396 or 888-823-8780 to make an initial appointment with a degree completion advisor.

2. If you are not currently a UAF student, are attending as a non-degree student or are enrolled in an associate or certificate program, you need to apply for admission to a bachelor's degree with the UAF Office of Admissions (https://www.uaf.edu/admissions/apply/). If you are currently active in a bachelor’s degree program at UAF, you do not need to reapply for admission and can skip this step. New transfer students must have official transcripts from all previous colleges sent to UAF’s Office of Admissions.

3. Submit a General Studies concentration application form (https://docs.google.com/forms/d/e/1FAIpQLSeQmLNQdIvDFuLc9JGD8te6TiDnnGk3aG0H9fGAg7myUr4gpw/viewform/?usp=sf_link). The interdisciplinary studies major with a general studies concentration is intended for students who have 100 or more college credits but are not close to graduating or have obstacles preventing them from graduating with a particular major.

4. Your responses on the application form will be reviewed by a degree completion advisor, the director of the Academic Advising Center and the UAF vice provost for admission to the major.

5. Once admitted to the interdisciplinary studies major, you will be notified by email, and your Degree Works will be updated to show your degree requirements.

6. You will continue to work with a degree completion academic advisor on your path to graduation.

More information can be found on the interdisciplinary studies website (https://www.uaf.edu/inds/).
Program Requirements
Minimum Requirements for Interdisciplinary Studies B.A. Degree: 130 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General University Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (p. 154)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>General Education Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general education requirements. (p. 157)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>B.A. Degree and Program Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the B.A. degree requirements (p. 164)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Interdisciplinary Studies Major Requirements</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Interdisciplinary studies major courses (^1)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Capstone</td>
<td></td>
</tr>
<tr>
<td></td>
<td>GENR F400 Interdisciplinary Capstone or an alternative capstone course or project approved by a degree completion advisor.</td>
<td></td>
</tr>
</tbody>
</table>

\(^1\) Students in the general studies concentration will work with a degree completion advisor to choose classes that are meaningful and relevant to their educational interests and career goals from a variety of disciplines.

Note: At least 39 credits upper-division (300-499) credits must be earned to complete a UAF bachelor's degree.

More information can be found on the interdisciplinary studies website (https://www.uaf.edu/inds/).

B.A., Interdisciplinary Studies - Goals Option

Admission Requirements
Admission process for an interdisciplinary studies custom major (goals option)

1. Contact the Academic Advising Center at 907-474-6396 or 888-823-8780 for materials, procedures and to make an appointment with an interdisciplinary studies advisor.

2. If you are not currently a UAF student, are attending as a nondegree student or are enrolled in an associate or certificate program, you need to apply for admission to a bachelor's degree with the UAF Office of Admissions (https://www.uaf.edu/admissions/apply/). If you are currently active in a bachelor degree program at UAF, you do not need to reapply for admission and can skip this step.

3. Draft an interdisciplinary proposal which should include the following:
   - Your name and UA ID number
   - The degree type you are pursuing: B.A., B.S. or B.A.A.S.
   - A proposed title of the interdisciplinary major
   - A description of your major. The description should include academic outcomes of the major, including skills and knowledge that will be gained. It can include information about how the major will prepare you for specific careers. In addition, it should explain how the proposed major differs from established UAF degree programs. Personal information can be included to explain why the proposed major is a good fit for you. You can also draft a list of courses that you would like to include in your major.
   - Note that an interdisciplinary major must include course work from more than one discipline, cannot be titled the same as an existing major and must demonstrate a cohesive body of knowledge skills.

4. Contact faculty (three minimum) to serve as your interdisciplinary committee. One faculty member will serve as the chair/advisor. The faculty chair should be affiliated with an academic unit that provides the degree level you are seeking. You should arrange a committee meeting for all members to meet and discuss your proposal. At this meeting, the committee will review your interdisciplinary proposal and provide feedback to help you choose your title and proposed courses. They will also help you select an appropriate graduation capstone. An interdisciplinary capstone can be (but is not limited to) an internship, a research project or a course.

5. After receiving feedback and advice from your faculty committee, you will fill out an Interdisciplinary Studies Approval Form and attach the edited final draft of your interdisciplinary proposal. The form must be signed by you, each of your committee members and the dean of your committee chair. The signed form and attached proposal are then sent to the interdisciplinary studies advisor, who will review the packet with the vice provost for final approval.

6. Once your interdisciplinary studies packet is approved, you will be notified by email and your DegreeWorks will be updated to show your new major’s courses. You will work with your committee chair as your primary academic advisor going forward.

7. Any changes to the approved curriculum are made with the approval of your faculty committee chair and submitted on a UAF Undergraduate Petition Form signed by all necessary parties. Petitions should be submitted to the interdisciplinary studies program advisor who will review the request with the vice provost for final approval.

8. The approved title of your major will appear on your transcript and diploma when you graduate as “Interdisciplinary Studies: Your Title.”

For more information visit the interdisciplinary studies website (https://www.uaf.edu/inds/).

Program Requirements
Students must earn a C- grade or better in each course

Minimum Requirements for Interdisciplinary Studies B.A.: 130 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General University Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (p. 154)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>General Education Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general education requirements. (p. 157)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>B.A. Degree and Program Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the B.A. degree requirements (p. 164)</td>
<td></td>
</tr>
</tbody>
</table>
Interdisciplinary Program Requirements

Interdisciplinary studies major courses

Capstone

An interdisciplinary capstone will be approved by the student’s interdisciplinary committee. The capstone can be, but is not limited to, an internship, a research project or a course.

An interdisciplinary major must include coursework from more than one discipline, cannot be titled the same as an existing major and must demonstrate a cohesive body of knowledge skills. Courses in the major must be approved by an advisory committee of at least three faculty members, the dean of the faculty committee chair and the vice provost. An Interdisciplinary major from UAF consists of a minimum of 30 credits, at least 12 of which have to be earned at UAF.

Note: At least 39 credits upper-division (300-499) credits must be earned to complete a UAF bachelor degree.

For more information visit the interdisciplinary studies website (https://www.uaf.edu/inds/).

B.A.A.S., Interdisciplinary Studies - General Studies Concentration (Degree Completion)

Admission Requirements

Admission process for an interdisciplinary studies major with a general studies concentration

1. Contact the Academic Advising Center at 907-474-6396 or 888-823-8780 to make an initial appointment with a degree completion advisor.

2. If you are not currently a UAF student, are attending as a non-degree student or are enrolled in an associate or certificate program, you need to apply for admission to a bachelor’s degree with the UAF Office of Admissions (https://www.uaf.edu/admissions/apply/). If you are currently active in a bachelor’s degree program at UAF, you do not need to reapply for admission and can skip this step. New transfer students must have official transcripts from all previous colleges sent to UAF’s Office of Admissions.

3. Submit a General Studies concentration application form (https://docs.google.com/forms/d/e/1FAIpQLSeQmLNQdvDfuLcJGD8t6TI0nnGk3aG0H9fGAgL7myUr4gsw/viewform/?usp=sf_link). The interdisciplinary studies major with a general studies concentration is intended for students who have 100 or more college credits but are not close to graduating or have obstacles preventing them from graduating with a particular major.

4. Your responses on the application form will be reviewed by a degree completion advisor, the director of the Academic Advising Center and the UAF vice provost for admission to the major.

5. Once admitted to the interdisciplinary studies major, you will be notified by email, and your Degree Works will be updated to show your degree requirements.

6. You will continue to work with a degree completion academic advisor on your path to graduation.

More information can be found on the interdisciplinary studies website (https://www.uaf.edu/inds/).

Program Requirements

Students must earn a C- grade or better in each course.

Minimum Requirements for Interdisciplinary Studies B.A.A.S.: 120 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General University Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (p. 154)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>General Education Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general education requirements. (p. 157)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>B.A.A.S. Degree and Program Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the B.A.A.S. degree requirements. (p. 161)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Interdisciplinary Studies Major Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Interdisciplinary studies</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Complete an Associate of Applied Science degree from an accredited institution of higher education.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Capstone</td>
<td></td>
</tr>
<tr>
<td></td>
<td>GENR F400 Interdisciplinary capstone or an alternative capstone course or project approved by a degree completion advisor.</td>
<td></td>
</tr>
</tbody>
</table>

1 Students in the general studies concentration will work with a degree completion advisor to choose classes that are meaningful and relevant to their educational interests and career goals from a variety of disciplines.

Note: At least 39 upper-division credits (300-499) must be earned to complete a UAF bachelor’s degree.

More information can be found on the interdisciplinary studies website (https://www.uaf.edu/inds/).

B.A.A.S., Interdisciplinary Studies - Goals Option

Admission Requirements

The admission process for an interdisciplinary studies major with a general studies concentration:

1. Contact the Academic Advising Center at 907-474-6396 or 888-823-8780 for materials, procedures and to make an appointment with an interdisciplinary studies advisor.

2. If you are not currently a UAF student, are attending as a nondegree student or are enrolled in an associate or certificate program, you need to apply for admission to a bachelor’s degree program with the UAF Office of Admissions (https://www.uaf.edu/admissions/apply/). If you are currently active in a bachelor’s degree program at UAF, you do not need to reapply for admission and can skip this step.

3. Draft an interdisciplinary proposal which should include the following:
   - Your name and UA ID number
   - The degree type you are pursuing: B.A., B.S. or B.A.A.S.
   - A proposed title of the interdisciplinary major,
• A description of your major. The description should include 
academic outcomes of the major, including skills and knowledge 
that will be gained. It can include information about how the 
major will prepare you for specific careers. In addition, it should 
explain how the proposed major differs from established UAF 
degree programs. Personal information can be included to explain 
why the proposed major is a good fit for you. You can also draft a 
list of courses that you would like to include in your major.

• Note that an interdisciplinary major must include course work 
from more than one discipline, cannot be titled the same as 
an existing major and must demonstrate a cohesive body of 
knowledge or skills.

4. Contact faculty members (three minimum) to serve as your 
interdisciplinary committee. One faculty member will serve as 
the chair/advisor. The faculty chair should be affiliated with an 
academic unit that provides the degree level you are seeking. You 
should arrange a committee meeting for all members to meet and 
discuss your proposal. At this meeting, the committee will review your 
interdisciplinary proposal and provide feedback or help you choose 
your title and proposed courses. They will also help you select an 
appropriate graduation capstone. An interdisciplinary capstone can 
be (but is not limited to) an internship, a research project or a course.

5. After receiving feedback and advice from your faculty committee, you 
will fill out an interdisciplinary studies Approval Form and attach the 
edited final draft of your interdisciplinary proposal. The form must 
be signed by you, each of your committee members and the dean of 
your committee chair. The signed form and attached proposal are 
then sent to the interdisciplinary studies advisor who will review the 
packet with the vice provost for final approval.

6. Once your interdisciplinary studies packet is approved, you will be 
notified by email, and your Degree Works will be updated to show your 
new major’s courses. You will work with your committee chair as your 
primary academic advisor going forward.

7. Any changes to the approved curriculum are made only with the 
approval of your faculty committee chair and submitted on a UAF 
Undergraduate Petition Form and signed by all necessary parties. 
Petitions should be submitted to the interdisciplinary studies 
program advisor who will review the packet with the vice provost for 
final approval.

8. When you graduate, the approved title of your major will appear on 
your transcript and diploma as ‘Interdisciplinary Studies: Your Title.’

More information can be found on the interdisciplinary studies website 
(https://www.uaf.edu/inds/).

Program Requirements
Students must earn a C- grade or better in each course.

Minimum Requirements for 
Interdisciplinary Studies B.A.A.S.: 120 
credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General University Requirements</td>
<td>(p. 154)</td>
</tr>
</tbody>
</table>

General Education Requirements
Complete the general education requirements. (p. 157)

B.A.A.S. Degree and Program Requirements
Complete the B.A.A.S. degree requirements. (p. 161)

Interdisciplinary Studies Program Requirements
Interdisciplinary studies 1 30

Complete an Associate of Applied Science degree from an 
accredited institution of higher education.

Capstone
An interdisciplinary capstone will be approved by the 
student’s interdisciplinary committee. The capstone can 
be, but is not limited to, an internship, a research project or 
a course.

1 An interdisciplinary major must include course work from more than 
one discipline, cannot be titled the same as an existing major and 
must demonstrate a cohesive body of knowledge or skills. Courses 
in the major must be approved by an advisory committee of at least 
three faculty members, the dean of the faculty committee chair and 
the vice provost. An interdisciplinary major from UAF consists of a 
minimum of 30 credits, at least 12 of which have to be earned at UAF.

Note: At least 39 upper-division credits (300-499) must be earned 
to complete a UAF bachelor’s degree.

More information can be found on the interdisciplinary studies website 
(https://www.uaf.edu/inds/).

B.S., Interdisciplinary Studies - 
General Studies Concentration 
(Degree Completion)

Admission Requirements
Admission process for an interdisciplinary studies major with a general 
studies concentration

1. Contact the Academic Advising Center at 907-474-6396 or 
888-823-8780 to make an initial appointment with a degree 
completion advisor.

2. If you are not currently a UAF student, are attending as a non-degree 
student or are enrolled in an associate or certificate program, you 
need to apply for admission to a bachelor’s degree with the UAF 
Office of Admissions (https://www.uaf.edu/admissions/apply/). If 
you are currently active in a bachelor’s degree program at UAF, you 
do not need to reapply for admission and can skip this step. New 
transfer students must have official transcripts from all previous 
colleges sent to UAF’s Office of Admissions.

3. Submit a General Studies concentration application 
form (https://docs.google.com/forms/d/ 
e/1FAIpQLSeQmLNQdVlDfuLCjGDB8te6TIDnGk3aG0H9fGAgt7myUj4gwp/ 
viewform?usp=sf_link). The interdisciplinary studies major with a 
general studies concentration is intended for students who have 
100 or more college credits but are not close to graduating or have 
obstacles preventing them from graduating with a particular major.

4. Your responses on the application form will be reviewed by a degree 
completion advisor, the director of the Academic Advising Center and the 
UAF vice provost for admission to the major.
5. Once admitted to the interdisciplinary studies major, you will be notified by email, and your Degree Works will be updated to show your degree requirements.

6. You will continue to work with a degree completion academic advisor on your path to graduation.

More information can be found on the interdisciplinary studies website (https://www.uaf.edu/inds/).

Program Requirements

Students must earn a C- grade or better in each course.

Minimum Requirements for Interdisciplinary Studies Bachelor Degree:

130 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General University Requirements</td>
<td>Complete the general university requirements. (p. 154)</td>
<td></td>
</tr>
<tr>
<td>General Education Requirements</td>
<td>Complete the general education requirements. (p. 157)</td>
<td></td>
</tr>
<tr>
<td>B.S. Degree Requirements</td>
<td>Complete the B.S. degree requirements (p. 170)</td>
<td></td>
</tr>
<tr>
<td>Interdisciplinary Studies Program Requirements</td>
<td>Interdisciplinary studies major courses ¹</td>
<td>30</td>
</tr>
<tr>
<td>Capstone</td>
<td>GENR F400 Interdisciplinary Capstone or an alternative capstone course or project approved by a degree completion advisor.</td>
<td></td>
</tr>
</tbody>
</table>

¹ Students in the general studies concentration will work with a degree completion advisor to choose classes that are meaningful and relevant to their educational interests and career goals from a variety of disciplines.

Note: At least 39 credits Upper Division (300-499) credits must be earned to complete a UAF bachelor’s degree.

More information can be found on the interdisciplinary studies website (https://www.uaf.edu/inds/).

B.S., Interdisciplinary Studies - Goals Option

Admission Requirements

Admission process for an interdisciplinary studies custom major (goals option)

1. Contact the Academic Advising Center at 907-474-6396 or 888-823-8780 for materials, procedures and to make an appointment with an interdisciplinary studies advisor.

2. If you are not currently a UAF student, are attending as a nondegree student or are enrolled in an associate or certificate program, you need to apply for admission to a bachelor's degree with the UAF Office of Admissions (https://www.uaf.edu/admissions/apply/). If you are currently active in a bachelor’s degree program at UAF, you do not need to reapply for admission and can skip this step.

3. Draft an interdisciplinary proposal that should include the following:
   - Your name and UA ID number
   - The degree type you are pursuing: B.A., B.S. or B.A.A.S.
   - A proposed title of the interdisciplinary major
   - A description of your major. The description should include academic outcomes of the major, including skills and knowledge that will be gained. It can include information about how the major will prepare you for specific careers. In addition, it should explain how the proposed major differs from established UAF degree programs. Personal information can be included to explain why the proposed major is a good fit for you. You can also draft a list of courses that you would like to include in your major.
   - Note that an interdisciplinary major must include course work from more than one discipline, cannot be titled the same as an existing major and must demonstrate a cohesive body of knowledge skills.

4. Contact faculty (three minimum) to serve as your interdisciplinary committee. One faculty member will serve as the chair/advisor. The faculty chair should be affiliated with an academic unit that provides the degree level you are seeking. You should arrange a committee meeting for all members to meet and discuss your proposal. At this meeting, the committee will review your interdisciplinary proposal and provide feedback to help you choose your title and proposed courses. They will also help you select an appropriate graduation capstone. An interdisciplinary capstone can be (but is not limited to) an internship, a research project or a course.

5. After receiving feedback and advice from your faculty committee, you will fill out an Interdisciplinary Studies Approval form and attach the edited final draft of your interdisciplinary proposal. The Form must be signed by you, each of your committee members and the dean of your committee chair. The signed form and attached proposal are then sent to the interdisciplinary studies advisor who will review the packet with the vice provost for final approval.

6. Once your interdisciplinary studies packet is approved, you will be notified by email and your DegreeWorks will be updated to show your new major’s courses. You will work with your committee chair as your primary academic advisor going forward.

7. Any changes to the approved curriculum are made only with the approval of your faculty committee chair and submitted on a UAF Undergraduate Petition Form and signed by all necessary parties. Petitions should be submitted to the interdisciplinary studies program advisor, who will review the packet with the vice provost for final approval.

8. The approved title of your major will appear on your transcript and diploma when you graduate as “Interdisciplinary Studies: Your Title.”

More information can be found on the interdisciplinary studies website (http://www.uaf.edu/inds/).

Program Requirements

Students must earn a C- grade or better in each course.
Minimum Requirements for Interdisciplinary B.S.: 130 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General University Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (p. 154)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>General Education Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general education requirements. (p. 157)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>B.A. Degree and Program Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the B.S. degree requirements (p. 170)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Interdisciplinary Program Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Interdisciplinary studies major courses 1</td>
<td></td>
</tr>
</tbody>
</table>

Capstone

An interdisciplinary capstone will be approved by the student’s interdisciplinary committee. The capstone can be, but is not limited to, an internship, a research project or a course.

1 An interdisciplinary major must include course work from more than one discipline, cannot be titled the same as an existing major and must demonstrate a cohesive body of knowledge skills. Courses in the major must be approved by an advisory committee of at least three faculty members, the dean of the faculty committee chair and the vice provost. An Interdisciplinary major from UAF consists of a minimum of 30 credits, at least 12 of which have to be earned at UAF.

Note: At least 39 credits upper-division (300-499) credits must be earned to complete a UAF bachelor’s degree.

More information can be found on the interdisciplinary studies website (http://www.uaf.edu/inds/).

Minor, Interdisciplinary Studies

Overview

The interdisciplinary minor provides flexibility to students who have educational goals that do not fit into one of the established minors offered by the university. Interdisciplinary minors must include courses from at least two different disciplines that focus on a shared theme. Students must write a proposal describing the intended name, description and list of courses within their minor. Help with the undergraduate minor approval process is available at 907-474-6396 or at the interdisciplinary studies website (http://www.uaf.edu/inds/). All interdisciplinary proposals will be reviewed by a committee appointed by the UAF vice provost for approval.

Minimum Requirements for Interdisciplinary Studies Minor: 18 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Courses from at least two different disciplines that focus on a shared theme.</td>
<td>18 or more</td>
</tr>
</tbody>
</table>

Note: At least 3 credits must be earned at UAF for all minors.

More information can be found on the interdisciplinary studies website (http://www.uaf.edu/inds/).

Japanese Studies

B.A. Degree

Students majoring in Japanese studies are required to successfully complete at least one semester on an exchange program in Japan. Spending a full academic year abroad is strongly encouraged.

Minimum Requirements for Japanese Studies Bachelor’s Degree: 120 credits

Learn more about the bachelor’s degree in Japanese studies (https://uaf.edu/academics/programs/bachelors/japanese-studies.php), including an overview of the program, career opportunities and more.

College of Liberal Arts
Department of Foreign Languages and Literatures (http://www.uaf.edu/language/)
907-474-7396

Programs

Degree

• B.A., Japanese Studies (p. 251)

Minor

• Minor, Japanese Studies (p. 252)

B.A., Japanese Studies

Program Requirements

Students must earn a C- grade or better in each course.
Minimum Requirements for Japanese Studies B.A.: 120 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>General University Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (p. 154)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>General Education Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general education requirements. (p. 157)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>B.A. Degree Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the B.A. degree requirements. (p. 164)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Japanese Studies Program Requirements (all courses in this category are taught in Japanese)</strong></td>
<td></td>
</tr>
<tr>
<td>JPN F301</td>
<td>Advanced Japanese¹</td>
<td>3</td>
</tr>
<tr>
<td>JPN F302</td>
<td>Advanced Japanese¹</td>
<td>3</td>
</tr>
<tr>
<td>JPN F431</td>
<td>Studies in Japanese Culture¹</td>
<td>3</td>
</tr>
<tr>
<td>JPN F432</td>
<td>Studies in Japanese Language¹</td>
<td>3</td>
</tr>
<tr>
<td>JPN F475</td>
<td>Seminar on Contemporary Japan²</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Electives</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Japanese Studies Electives</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete 6 credits from the following:</td>
<td>6</td>
</tr>
<tr>
<td>JPN F330</td>
<td>Classical Japanese Literature</td>
<td></td>
</tr>
<tr>
<td>JPN F331</td>
<td>Women's Voices in Japanese Literature</td>
<td></td>
</tr>
<tr>
<td>JPN F332</td>
<td>Japanese Cultural Traditions and Arts</td>
<td></td>
</tr>
<tr>
<td>JPN F333</td>
<td>20th-Century Japanese Prose Fiction</td>
<td></td>
</tr>
<tr>
<td>JPN F482</td>
<td>Selected Topics in Japanese</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Japan-Related Electives</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete 12 credits from the following as approved by an advisor:³ ⁴</td>
<td>12</td>
</tr>
<tr>
<td>GEOG F311</td>
<td>Geography of Asia</td>
<td></td>
</tr>
<tr>
<td>HIST F121</td>
<td>East Asian Civilization</td>
<td></td>
</tr>
<tr>
<td>HIST F122X</td>
<td>East Asian Civilization</td>
<td></td>
</tr>
<tr>
<td>HIST F331</td>
<td>Modern Japan</td>
<td></td>
</tr>
<tr>
<td>HIST F333</td>
<td>Foundations of Japanese History</td>
<td></td>
</tr>
<tr>
<td>HIST F414</td>
<td>Women and Gender in East Asian History</td>
<td></td>
</tr>
<tr>
<td>JPN F210</td>
<td>Beginning Kanji</td>
<td></td>
</tr>
<tr>
<td>JPN F310</td>
<td>Intermediate Kanji</td>
<td></td>
</tr>
<tr>
<td>JPN F311</td>
<td>Advanced Kanji</td>
<td></td>
</tr>
<tr>
<td>JPN F330</td>
<td>Classical Japanese Literature</td>
<td></td>
</tr>
<tr>
<td>JPN F331</td>
<td>Women's Voices in Japanese Literature</td>
<td></td>
</tr>
<tr>
<td>JPN F332</td>
<td>Japanese Cultural Traditions and Arts</td>
<td></td>
</tr>
<tr>
<td>JPN F333</td>
<td>20th-Century Japanese Prose Fiction</td>
<td></td>
</tr>
<tr>
<td>JPN F482</td>
<td>Selected Topics in Japanese</td>
<td></td>
</tr>
<tr>
<td>PS F221X</td>
<td>International Politics</td>
<td></td>
</tr>
<tr>
<td>PS F464</td>
<td>East Asian Governments and Politics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Completion of semester exchange in Japan or written departmental approval.¹</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Instructor-approved Japan-related courses taken during time abroad may count toward this requirement.³</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Courses taken to satisfy Japanese studies electives requirement may not be retaken or otherwise counted to satisfy Japan-related electives requirement.⁴</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Students planning a double major for a single B.A. may double count a maximum of 9 credits from the major requirements toward a second major. Students earning two degrees are not subject to double-counting restrictions.

Minor, Japanese Studies

Program Requirements

Students must earn a C- grade or better in each course.

Minimum Requirements for Japanese Studies Minor: 15 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Complete the following:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Japanese course credits at the F100 level or above</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Japanese course credits at the F200 level or above</td>
<td>12</td>
</tr>
</tbody>
</table>

Justice

**B.A. Degree**

The justice discipline represents a melding of theoretical and applied concepts, and both the B.A. degree in justice and the M.A. degree in justice administration reflect that dichotomy. Consequently, students explore theoretical models associated with different aspects of the criminal justice system, and also study its structure and administration.

The applied nature of the degree results in graduates with a B.A. in justice who can compete for positions in various justice employment fields. Justice juniors and seniors also enjoy opportunities for internships with various justice agencies.

Justice courses are available online and in the classroom.

Minimum Requirements for Justice Bachelor’s Degree: 120 credits

Learn more about the bachelor’s degree in justice (https://uaf.edu/academics/programs/bachelors/justice.php), including an overview of the program, career opportunities and more.

Learn more about the online bachelor’s degree in justice (https://uaf.edu/academics/programs/bachelors/justice-online.php), including an overview of the program, career opportunities and more.

College of Liberal Arts

Justice Program (http://www.uaf.edu/justice/)
907-474-5500

Programs

**Degree**

- B.A., Justice (p. 253)
Minor

• Minor, Justice (p. 253)

B.A., Justice

Program Requirements

Students must earn a C- grade or better in each course.

Minimum Requirements for Justice B.A.
Degree: 120 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General University Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (p. 154)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>General Education Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general education requirements. (p. 157)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>B.A. Degree Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the B.A. degree requirements. (p. 164)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Justice Program Requirements</td>
<td></td>
</tr>
<tr>
<td>JUST F110X</td>
<td>Introduction to Justice</td>
<td>3</td>
</tr>
<tr>
<td>JUST F125X</td>
<td>Introduction to Addictive Processes</td>
<td>3</td>
</tr>
<tr>
<td>JUST F222</td>
<td>Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>JUST F251X</td>
<td>Criminology</td>
<td>3</td>
</tr>
<tr>
<td>JUST F300X</td>
<td>Ethics and Justice ¹</td>
<td>3</td>
</tr>
<tr>
<td>JUST F310</td>
<td>Principles of Corrections</td>
<td>3</td>
</tr>
<tr>
<td>JUST F340</td>
<td>Rural Justice in Alaska</td>
<td>3</td>
</tr>
<tr>
<td>JUST F358</td>
<td>Juvenile Delinquency</td>
<td>3</td>
</tr>
<tr>
<td>Complete one of the following capstone courses: ²</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>JUST F475</td>
<td>Internship</td>
<td></td>
</tr>
<tr>
<td>JUST F490</td>
<td>Capstone: Seminar in Critical Issues in Criminal Justice</td>
<td></td>
</tr>
<tr>
<td>JUST F498</td>
<td>Research Project</td>
<td></td>
</tr>
</tbody>
</table>

Complete 18 credits from the following, 12 of which need to be justice electives: 18

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH F242</td>
<td>Native Cultures of Alaska</td>
</tr>
<tr>
<td>ANTH F320</td>
<td>Language and Culture in Alaska</td>
</tr>
<tr>
<td>or COJO F330</td>
<td>Intercultural Communication</td>
</tr>
<tr>
<td>COJO F201</td>
<td>Dispute Resolution and Restorative Practices</td>
</tr>
<tr>
<td>COJO F302</td>
<td>Dispute Systems Design</td>
</tr>
<tr>
<td>COJO F451</td>
<td>Cross-cultural Conflict Analysis and Intervention</td>
</tr>
<tr>
<td>COJO F461</td>
<td>Law and Science of Arbitration</td>
</tr>
<tr>
<td>COJO F465</td>
<td>Clinic in Mediation, Conferencing and Circle Practices</td>
</tr>
<tr>
<td>HUMS F205</td>
<td>Basic Principles of Group Counseling</td>
</tr>
<tr>
<td>JUST F315</td>
<td>Correctional Counseling and Rehabilitation</td>
</tr>
<tr>
<td>JUST F335</td>
<td>Gender and Crime</td>
</tr>
<tr>
<td>JUST F345</td>
<td>Police Problems</td>
</tr>
<tr>
<td>JUST F352</td>
<td>Criminal Law</td>
</tr>
<tr>
<td>JUST F354</td>
<td>Procedural Law</td>
</tr>
<tr>
<td>JUST F435</td>
<td>Comparative Criminology</td>
</tr>
<tr>
<td>JUST F453</td>
<td>Advanced Problems in Procedural Law</td>
</tr>
<tr>
<td>JUST F475</td>
<td>Internship</td>
</tr>
<tr>
<td>JUST F492/F492P</td>
<td>Seminar in Critical Issues in Criminal Justice</td>
</tr>
<tr>
<td>PSY F330</td>
<td>Social Psychology</td>
</tr>
<tr>
<td>PSY F370</td>
<td>Drugs and Behavior</td>
</tr>
<tr>
<td>SOC F201X</td>
<td>Social Problems and Solutions</td>
</tr>
<tr>
<td>SOC F301</td>
<td>Rural Sociology</td>
</tr>
<tr>
<td>SOC F335</td>
<td>Deviance and Social Control</td>
</tr>
</tbody>
</table>

¹ If taken to meet the ethics requirement in the degree specific requirements, then the student must take an additional upper-division justice elective for 3 credits to complete the major.

² Fulfills the baccalaureate capstone requirement.

Minor, Justice

Program Requirements

Students must earn a C- grade or better in each course.

Minimum Requirements for Justice Minor:
15 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Complete the following:</td>
<td></td>
</tr>
<tr>
<td>JUST F110X</td>
<td>Introduction to Justice</td>
<td>3</td>
</tr>
<tr>
<td>JUST electives</td>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>

Note: 400-level courses require junior standing or instructor permission

Law and Society

Minor Only

This program helps students understand law in relationship to the larger society. It is based firmly on the view that the law is a rich humanistic tradition and study of legal ideas and institutions will promote sustained reflection on such fundamental concepts and values as equality, freedom, privacy, justice and human rights.

While the program is of special interest to students who plan graduate studies in law or careers in government service, it is recommended for any student who desires to understand the role of law in society. The program provides students with tools for reasoned appraisal of how the law works, ideas and policies that underlie it, and the ability to think clearly and analyze arguments critically.

Minimum Requirements for Law and Society Minor: 15 credits

College of Liberal Arts
Department of Political Science (http://www.uaf.edu/polisci/) 907-474-7609

Programs

Minor

• Minor, Law and Society (p. 254)
Minor, Law and Society

Program Requirements
Minimum Requirements for Law and Society Minor: 15 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PS F303</td>
<td>Politics and the Judicial Process</td>
<td>3</td>
</tr>
<tr>
<td>PS F435</td>
<td>Constitutional Law I: Federalism</td>
<td>3</td>
</tr>
<tr>
<td>PS F436</td>
<td>Constitutional Law II: Civil Rights and Liberties</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete 6 credits from the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANS F425</td>
<td>Federal Indian Law and Alaska Natives</td>
<td></td>
</tr>
<tr>
<td>BA F317</td>
<td>Employment Law</td>
<td></td>
</tr>
<tr>
<td>BA F330</td>
<td>The Legal Environment of Business</td>
<td></td>
</tr>
<tr>
<td>COJO F413</td>
<td>Mass Media Law and Regulation</td>
<td></td>
</tr>
<tr>
<td>JUST F352</td>
<td>Criminal Law</td>
<td></td>
</tr>
<tr>
<td>JUST F354</td>
<td>Procedural Law</td>
<td></td>
</tr>
<tr>
<td>PS F322</td>
<td>International Law and Organization</td>
<td></td>
</tr>
<tr>
<td>PS F450</td>
<td>Comparative Indigenous Rights and Policies</td>
<td></td>
</tr>
<tr>
<td>SOC F435</td>
<td>Sociology of Law</td>
<td></td>
</tr>
</tbody>
</table>

Leadership

Minor Only

The minor in leadership is administered by the School of Management. Its purpose is to strengthen the abilities of UAF graduates to lead and contribute effectively in both the public and private spheres, especially in the Alaska economy.

School of Management (http://www.uaf.edu/som/)
907-474-7461

Programs

Minor

- Minor, Leadership (p. 254)

Minor, Leadership

Program Requirements
Minimum Requirements for Leadership Minor: 15 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSEM/LEAD F456</td>
<td>Leadership in Dangerous Contexts</td>
<td>6</td>
</tr>
<tr>
<td>LEAD/BA F470</td>
<td>Leadership Theory and Development</td>
<td>1</td>
</tr>
<tr>
<td>LEAD/BA F472</td>
<td>Leading Change</td>
<td>1</td>
</tr>
</tbody>
</table>

Tracks

Complete 9 credits from one of the following tracks: 2

Business Administration Track

[Table continued]

Military Science Track

<table>
<thead>
<tr>
<th>MILS F101</th>
<th>Introduction to the Army</th>
</tr>
</thead>
<tbody>
<tr>
<td>MILS F102</td>
<td>Foundations of Agile and Adaptive Leadership</td>
</tr>
<tr>
<td>MILS F201</td>
<td>Leadership and Decision Making</td>
</tr>
<tr>
<td>MILS F202</td>
<td>Army Doctrine and Team Development</td>
</tr>
</tbody>
</table>

Political Science Track

<table>
<thead>
<tr>
<th>PS F212</th>
<th>Introduction to Public Administration</th>
</tr>
</thead>
<tbody>
<tr>
<td>PS F301</td>
<td>American Presidency 1</td>
</tr>
<tr>
<td>PS/PHIL F412</td>
<td>Modern Political Theory 1</td>
</tr>
<tr>
<td>PS F437</td>
<td>United States Foreign Policy 1</td>
</tr>
</tbody>
</table>

Communication Track

<table>
<thead>
<tr>
<th>COJO F330</th>
<th>Intercultural Communication</th>
</tr>
</thead>
<tbody>
<tr>
<td>COJO F331</td>
<td>Advanced Group Communication</td>
</tr>
<tr>
<td>COJO F335</td>
<td>Organizational Communication</td>
</tr>
<tr>
<td>COJO F475</td>
<td>Applied Communication in Training and Development 1</td>
</tr>
</tbody>
</table>

Outdoor Leadership Track

<table>
<thead>
<tr>
<th>NRM F161</th>
<th>Wilderness Leadership Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>NRM F361</td>
<td>Advanced Wilderness Leadership Education 1</td>
</tr>
</tbody>
</table>

Complete 3 credits from the following skills courses for the remaining 3 credits:

<table>
<thead>
<tr>
<th>EMS F150</th>
<th>Wilderness Emergency Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>RECR F140H</td>
<td>Beginning Rock Climbing</td>
</tr>
<tr>
<td>RECR F140K</td>
<td>Advanced Rock Climbing</td>
</tr>
<tr>
<td>RECR F140L</td>
<td>Technical Climbing</td>
</tr>
<tr>
<td>RECR F140Y</td>
<td>Kayaking</td>
</tr>
<tr>
<td>RECR F170G</td>
<td>Introduction to Ski Mountaineering</td>
</tr>
<tr>
<td>RECR F170N</td>
<td>Introduction to Winter Camping</td>
</tr>
</tbody>
</table>

Alaska Native Community Leadership Track

<table>
<thead>
<tr>
<th>ANS F310</th>
<th>Alaska Native and Comparative Indigenous Land Settlements</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANS F325</td>
<td>Alaska Native and Comparative Tribal Self-Government</td>
</tr>
<tr>
<td>ANS/RD F401</td>
<td>Cultural Knowledge of Native Elders</td>
</tr>
<tr>
<td>ANS F425</td>
<td>Federal Indian Law and Alaska Natives</td>
</tr>
<tr>
<td>RD F492</td>
<td>Rural Development Seminar</td>
</tr>
</tbody>
</table>

1 These courses have prerequisites that need to be taken into consideration. Consult with the School of Management.
2 Complete 9 credit hours from one of the “tracks” OR with the written approval of the School of Management, any three 3-credit hour courses from any combination of tracks.

Linguistics

B.A. Degree

Linguistics is the study of language and covers a variety of subjects, from theories of grammar and how we produce language to applications
of linguistic knowledge in areas such as language teaching. The undergraduate degree program seeks to give an overview of the discipline to raise students’ awareness of the many aspects of that uniquely human phenomenon, language.

Minimum Requirements for Linguistics Bachelor’s Degree: 120 credits

Learn more about the bachelor’s degree in linguistics (https://uaf.edu/academics/programs/bachelors/linguistics.php), including an overview of the program, career opportunities and more.

College of Liberal Arts
Linguistics Program (http://www.uaf.edu/linguist/)
907-474-7446

Programs
Degree
- B.A., Linguistics (p. 255)

Minor
- Minor, Linguistics (p. 255)

B.A., Linguistics
Program Requirements
Students must earn a C- grade or better in each course.

Minimum Requirements for Linguistics
B.A.: 120 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL F318</td>
<td>Modern English Grammar</td>
<td>3</td>
</tr>
<tr>
<td>LING F101X</td>
<td>Nature of Language</td>
<td>3</td>
</tr>
<tr>
<td>LING F318</td>
<td>Introduction to Phonetics and Phonology</td>
<td>3</td>
</tr>
<tr>
<td>LING F320</td>
<td>Introduction to Morphology</td>
<td>3</td>
</tr>
<tr>
<td>LING F430</td>
<td>Historical Linguistics</td>
<td>3</td>
</tr>
<tr>
<td>or LING F410</td>
<td>Theory and Methods of Second Language Teaching</td>
<td>3</td>
</tr>
<tr>
<td>or LING F431</td>
<td>Field Methods in Descriptive Linguistics I</td>
<td>3</td>
</tr>
<tr>
<td>LING F441</td>
<td>Topics in Linguistics</td>
<td>3</td>
</tr>
<tr>
<td>LING F482</td>
<td>Seminar in Linguistics</td>
<td>3</td>
</tr>
<tr>
<td>Complete four approved electives, three of which must be upper-division.</td>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>

1 It is recommended that at least one of the languages be other than an Indo-European language.
2 Fulfills the baccalaureate capstone requirement.
3 Possible electives include: ANL F251X, ANL F315, ANL F316, COJO F320, ENGL F462, ENGL F472 or any LING course not used above.

Minor, Linguistics
Program Requirements
Students must earn a C- grade or better in each course.

Minimum Requirements for Linguistics
Minor: 15 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LING F101X</td>
<td>Nature of Language</td>
<td>3</td>
</tr>
<tr>
<td>LING F318</td>
<td>Introduction to Phonetics and Phonology</td>
<td>3</td>
</tr>
<tr>
<td>LING F320</td>
<td>Introduction to Morphology</td>
<td>3</td>
</tr>
<tr>
<td>or ENGL F318</td>
<td>Modern English Grammar</td>
<td>3</td>
</tr>
<tr>
<td>Complete two LING electives</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Three of these credits may be from related courses in other departments of the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANL F251X</td>
<td>Introduction to Athabascan Linguistics</td>
<td></td>
</tr>
<tr>
<td>ANL F315</td>
<td>Alaska Native Languages: Eskimo-Aleut</td>
<td></td>
</tr>
<tr>
<td>ANL F316</td>
<td>Alaska Native Languages: Indian Languages</td>
<td></td>
</tr>
<tr>
<td>ANTH/WGS F308</td>
<td>Language and Gender</td>
<td></td>
</tr>
<tr>
<td>COJO F320</td>
<td>Communication and Language</td>
<td></td>
</tr>
<tr>
<td>ENGL F462</td>
<td>Applied English Linguistics</td>
<td></td>
</tr>
<tr>
<td>ENGL F472</td>
<td>History of the English Language</td>
<td></td>
</tr>
<tr>
<td>LING F410</td>
<td>Theory and Methods of Second Language Teaching</td>
<td></td>
</tr>
<tr>
<td>LING F420</td>
<td>Semantics</td>
<td></td>
</tr>
<tr>
<td>LING F430</td>
<td>Historical Linguistics</td>
<td></td>
</tr>
<tr>
<td>LING F431</td>
<td>Field Methods in Descriptive Linguistics I</td>
<td></td>
</tr>
<tr>
<td>LING F434</td>
<td>Field Methods in Descriptive Linguistics II</td>
<td></td>
</tr>
<tr>
<td>LING F450</td>
<td>Language Policy and Planning</td>
<td></td>
</tr>
<tr>
<td>Other upper-division LING electives</td>
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<td></td>
</tr>
</tbody>
</table>

Marine Science
Minor Only
Though the marine science minor is available to students in all degree programs, fisheries students will particularly benefit from the breadth this minor offers. The program will also appeal to students from other disciplines (e.g., political science, earth sciences, biology and wildlife, environmental science, resource management, education) in which possible career paths may require and/or benefit from training in marine science (policymaking, resource management, education, the seafood industry, etc.).
Students who complete the minor in marine science will possess a knowledge base and skill set that will make them more competitive for a wide variety of agency and organization positions, particularly within the state of Alaska. The education and training will be applicable to jobs within government management agencies such as the Alaska Department of Fish and Game and the U.S. Fish and Wildlife Service, as well as Alaska Native organizations, nonprofit conservation organizations, the seafood industry, or in other policy development, fisheries, education or outreach capacities.

College of Fisheries and Ocean Sciences (http://www.uaf.edu/cfos/academics/)
907-474-7824

**Programs**

**Minor**
- Minor, Marine Science (p. 256)

### Minor, Marine Science

**Program Requirements**
Students must earn a C- grade or better in each course.

**Minimum Requirements for Marine Science Minor: 15 credits**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSL F211</td>
<td>Introduction to Marine Science I</td>
<td>3</td>
</tr>
<tr>
<td>MSL F212</td>
<td>Introduction to Marine Science II</td>
<td>3</td>
</tr>
<tr>
<td>MSL F213L</td>
<td>Marine Science Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>Complete 3 credits from the following:</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>MSL F215</td>
<td>Marine Geological Drama and Undersea Catastrophes</td>
<td></td>
</tr>
<tr>
<td>MSL F317</td>
<td>Introduction to Marine Mammal Biology</td>
<td></td>
</tr>
<tr>
<td>MSL F412</td>
<td>Early Life Histories of Marine Invertebrates</td>
<td></td>
</tr>
<tr>
<td>MSL F419</td>
<td>Concepts in Physical Oceanography</td>
<td></td>
</tr>
<tr>
<td>MSL F431</td>
<td>Polar Marine Science</td>
<td></td>
</tr>
<tr>
<td>MSL F449</td>
<td>Biological Oceanography</td>
<td></td>
</tr>
<tr>
<td>MSL F461</td>
<td>Chemical Oceanography</td>
<td></td>
</tr>
<tr>
<td>MSL F463</td>
<td>Chemical Coastal Processes</td>
<td></td>
</tr>
<tr>
<td>MSL F481</td>
<td>The Oceans and Global Change</td>
<td></td>
</tr>
<tr>
<td>Complete 5 credits from the following:</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Marine Science and Limnology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSL F215</td>
<td>Marine Geological Drama and Undersea Catastrophes</td>
<td></td>
</tr>
<tr>
<td>MSL F220</td>
<td>Scientific Diving</td>
<td></td>
</tr>
<tr>
<td>MSL F317</td>
<td>Introduction to Marine Mammal Biology</td>
<td></td>
</tr>
<tr>
<td>MSL F330</td>
<td>The Dynamic Alaskan Coastline</td>
<td></td>
</tr>
<tr>
<td>MSL F412</td>
<td>Early Life Histories of Marine Invertebrates</td>
<td></td>
</tr>
<tr>
<td>MSL F419</td>
<td>Concepts in Physical Oceanography</td>
<td></td>
</tr>
<tr>
<td>MSL F421</td>
<td>Nearshore Ecology Field Course</td>
<td></td>
</tr>
<tr>
<td>MSL F431</td>
<td>Polar Marine Science</td>
<td></td>
</tr>
<tr>
<td>MSL F449</td>
<td>Biological Oceanography</td>
<td></td>
</tr>
<tr>
<td>MSL F450</td>
<td>Marine Biology and Ecology Field Course</td>
<td></td>
</tr>
<tr>
<td>MSL F456</td>
<td>Kelp Forest Ecology</td>
<td></td>
</tr>
<tr>
<td>MSL F461</td>
<td>Chemical Oceanography</td>
<td></td>
</tr>
<tr>
<td>MSL F463</td>
<td>Chemical Coastal Processes</td>
<td></td>
</tr>
<tr>
<td>MSL F481</td>
<td>The Oceans and Global Change</td>
<td></td>
</tr>
<tr>
<td>MSL F492</td>
<td>Seminar</td>
<td></td>
</tr>
</tbody>
</table>

### Fisheries
- FISH F288 | Fish and Fisheries of Alaska                        |         |
- FISH F425 | Fish Ecology                                           |         |
- FISH/BIOL F427 | Ichthyology                                      |         |

### Chemistry
- CHEM F202 | Basic Inorganic Chemistry                            |         |
- CHEM F212 | Chemical Equilibrium and Analysis                     |         |

### Biology and Wildlife
- BIOL F473 | Limnology                                               |         |

### Economics
- ECON F235X | Introduction to Natural Resource Economics            |         |

### Geoscience
- GEOS/GEOG F222 | Fundamentals of Geospatial Science                     |         |

### Statistics
- STAT F200X | Elementary Statistics                                  |         |

### Mathematics

**B.A., B.S. Degrees**
The number of new fields in which professional mathematicians find employment grows continually. This department prepares students for careers in industry, government and education.

In addition to the major programs, the department provides a number of service courses in support of other programs within the university. Current and detailed information on mathematics degrees and course offerings is available from the department.

The department maintains a math lab which is available for assistance to all students studying mathematics at the baccalaureate level.

The Department of Mathematics and Statistics also offers a minor in statistics (p. 283).

Minimum Requirements for Mathematics Bachelor's Degrees: 120 credits

Learn more about the bachelor's degree in mathematics (https://uaf.edu/academics/programs/bachelors/mathematics.php), including an overview of the program, career opportunities and more.

College of Natural Science and Mathematics
Department of Mathematics and Statistics (http://www.uaf.edu/dms/)
907-474-7332 or 907-474-5374

**Programs**

**Degrees**
- B.A., Mathematics (p. 257)
- B.S., Mathematics (p. 258)
Minor  
• Minor, Mathematics (p. 259)

B.A., Mathematics

Program Requirements
Students must earn a C- grade or better in each course.

Minimum Requirements for Mathematics

B.A.: 120 credits

CONCENTRATIONS: MATHEMATICS (P. 257), STATISTICS (P. 257)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-major Requirement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Students must be ready to matriculate into MATH F251X before they will be allowed to declare mathematics as their major.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>General University Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (p. 154)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>General Education Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general education requirements. (p. 157)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>As part of the general education requirements, complete:</td>
<td></td>
</tr>
<tr>
<td>MATH F251X</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>B.A. Degree Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the B.A. degree requirements. (p. 164)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>As part of the B.A. requirements, complete:</td>
<td></td>
</tr>
<tr>
<td>MATH F252X</td>
<td>Calculus II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mathematics Program Requirements</td>
<td></td>
</tr>
<tr>
<td>MATH F253X</td>
<td>Calculus III</td>
<td>3</td>
</tr>
<tr>
<td>MATH F256</td>
<td>Introduction to Mathematical Proofs</td>
<td>3</td>
</tr>
<tr>
<td>MATH F314</td>
<td>Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Complete one of the following concentrations:</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>Mathematics Concentration</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Statistics Concentration</td>
<td></td>
</tr>
</tbody>
</table>

Mathematics Program Requirements

MATH F410 Introduction to Complex Analysis | 3
MATH F432 Introduction to Partial Differential Equations | 3
MATH F460 Mathematical Modeling | 3

Complete 2 of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH F307</td>
<td>Discrete Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>MATH F426</td>
<td>Numerical Analysis</td>
<td>3</td>
</tr>
<tr>
<td>STAT F300</td>
<td>Statistics</td>
<td>3</td>
</tr>
<tr>
<td>or MATH F371</td>
<td>Probability</td>
<td></td>
</tr>
<tr>
<td>or MATH F408</td>
<td>Mathematical Statistics</td>
<td></td>
</tr>
</tbody>
</table>

Complete one from the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH F307</td>
<td>Discrete Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>MATH F320</td>
<td>Topics in Combinatorics</td>
<td>3</td>
</tr>
<tr>
<td>MATH F321</td>
<td>Number Theory</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Complete 2 from the following:</td>
<td></td>
</tr>
<tr>
<td>MATH F302</td>
<td>Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>MATH F410</td>
<td>Introduction to Complex Analysis</td>
<td>3</td>
</tr>
<tr>
<td>MATH F426</td>
<td>Numerical Analysis</td>
<td>3</td>
</tr>
<tr>
<td>MATH F432</td>
<td>Introduction to Partial Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>MATH F460</td>
<td>Mathematical Modeling</td>
<td>3</td>
</tr>
</tbody>
</table>

STATISTICS CONCENTRATION

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS F201</td>
<td>Computer Science I</td>
<td>3</td>
</tr>
<tr>
<td>or NRM F338</td>
<td>Introduction to Geographic Information Systems</td>
<td></td>
</tr>
<tr>
<td>ENGL F314</td>
<td>Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>or ENGL F414</td>
<td>Research Writing</td>
<td></td>
</tr>
<tr>
<td>MATH F371</td>
<td>Probability</td>
<td>3</td>
</tr>
<tr>
<td>MATH F401</td>
<td>Introduction to Real Analysis</td>
<td>3</td>
</tr>
<tr>
<td>or MATH F405</td>
<td>Abstract Algebra</td>
<td></td>
</tr>
<tr>
<td>MATH F408</td>
<td>Mathematical Statistics</td>
<td>3</td>
</tr>
<tr>
<td>STAT F300</td>
<td>Statistics</td>
<td>3</td>
</tr>
<tr>
<td>STAT F401</td>
<td>Regression and Analysis of Variance</td>
<td>4</td>
</tr>
<tr>
<td>STAT F402</td>
<td>Scientific Sampling</td>
<td>3</td>
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<tr>
<td>STAT F454</td>
<td>Statistical Consulting Seminar</td>
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</table>

Additional 3 elective credits

Fulfills the baccalaureate capstone requirement.

Acceptable elective courses include any math or statistics course at the F300 level or above, and CS F201. At least 15 credits must be math courses. In some cases, courses with strong mathematical content from other disciplines may be used as electives. Such an elective must be approved by an advisor in the Department of Mathematics and Statistics. The requirement that at least 15 credits be math courses still applies.
We strongly recommend that prospective secondary science teachers seek advising from the UAF School of Education early in their undergraduate degree program, so that they can be appropriately advised of the State of Alaska requirements for teacher licensure. Students may choose to pursue a double major with education or complete a postbaccalaureate teacher certification program.

Acceptable elective courses include any MATH or STAT course at the F300 level or above. In some cases, courses with strong mathematical content from other disciplines may be used as electives. Such an elective must be approved by an advisor in the Department of Mathematics and Statistics.

Note: All mathematics majors — including double majors — must have an advisor from the Department of Mathematics and Statistics.

Note: At least 12 approved mathematics credits at the F300 level or above must be taken while in residence on the Fairbanks campus.

**B.S., Mathematics**

**Program Requirements**

Students must earn a C- grade or better in each course.

**Minimum Requirements for Mathematics B.S.: 120 credits**

**CONCENTRATIONS: MATHEMATICS**

(P. 258), **STATISTICS**

(P. 258)

<table>
<thead>
<tr>
<th>Code</th>
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<td>and PHYS F212X General Physics II</td>
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<td>Complete one of the following concentrations:</td>
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**STATISTICS**

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<tr>
<td>CS F201</td>
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<td>or NRM F338</td>
<td>Introduction to Geographic Information Systems</td>
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</tr>
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<td>ENGL F314</td>
<td>Technical Writing</td>
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**Concentrations**

**MATHEMATICS**

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<td>MATH F405</td>
<td>Abstract Algebra</td>
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<td>MATH F490</td>
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<td>MATH F426 Numerical Analysis</td>
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**Applied Math Suggested Elective Package**

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<td>MATH F432</td>
<td>Introduction to Partial Differential Equations</td>
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<td>MATH F410</td>
<td>Introduction to Complex Analysis</td>
<td>3</td>
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<tr>
<td>MATH F460</td>
<td>Mathematical Modeling</td>
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<td>MATH F307 Discrete Mathematics</td>
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<td>MATH F426 Numerical Analysis</td>
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<td>STAT F300 Statistics</td>
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<td>Additional 3 elective credits</td>
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**Elective Package for Mathematics Teachers (Grades 7-12)**

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<td>MATH F316</td>
<td>Introduction to the History and Philosophy of Mathematics</td>
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<td>Statistics</td>
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<td>MATH F371</td>
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<td>MATH F408</td>
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<td>Complete one from the following:</td>
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<td>MATH F426 Numerical Analysis</td>
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<td></td>
<td>MATH F432 Introduction to Partial Differential Equations</td>
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<td>MATH F460 Mathematical Modeling</td>
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**Concentrations**

**STATISTICS**

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<td>MATH F265 Introduction to Mathematical Proofs</td>
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<td></td>
<td>MATH F314 Linear Algebra</td>
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<td>Complete one of the following concentrations:</td>
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<td></td>
<td>Mathematics Concentration</td>
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<td>Statistics Concentration</td>
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</table>
Minimum Requirements for Mathematics Minor: 21 credits

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<th>Title</th>
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<td>MATH F253X</td>
<td>Calculus III</td>
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<td>MATH F265</td>
<td>Introduction to Mathematical Proofs</td>
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<td>STAT F300</td>
<td>Statistics</td>
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<tr>
<td>STAT F454</td>
<td>Statistical Consulting Seminar</td>
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</table>

Complete at least 9 additional credits of the following:

- MATH F251X
- MATH F252X
- MATH F253X
- MATH F265
- STAT F300
- STAT F454

Additional 3 elective credits at the F300 level or above

- MATH F408: Mathematical Statistics
- STAT F401: Regression and Analysis of Variance
- STAT F402: Scientific Sampling
- STAT F454: Statistical Consulting Seminar

Any F300- or F400-level MATH course

Note: Electives approved by a mathematics advisor

Mechanical Engineering

B.S., B.S./M.S. Degrees

The mission of the mechanical engineering department at UAF is to offer the highest quality contemporary education at undergraduate and graduate levels, and to perform research appropriate to the technical needs of the state of Alaska, the nation and the world.

Mechanical engineers conceive, plan, design and direct the manufacturing, distribution and operation of a wide variety of devices, machines and systems for energy conversion, environmental control, materials processing, transportation, materials handling and other purposes. Mechanical engineers are engaged in creative design, applied research, development and management. A degree in mechanical engineering also frequently forms the base for entering law, medical or business school, as well as for graduate work in engineering.

The objectives of the mechanical engineering program are to produce graduates who are able to compete successfully on the world stage at the professional level; deal with the significant local, regional, national and global issues facing humankind; continue to develop as engineers through lifelong learning; and serve as resources of technical knowledge for the state as well as the nation, especially with respect to northern issues. The Engineering Accreditation Commission of ABET has accredited the B.S. degree program in mechanical engineering since 1980.

Because engineering is based on mathematics, chemistry and physics, students are introduced to the basic principles in these areas during their first two years of study. The third year encompasses courses in the engineering science — extensions to the basic sciences forming the foundation to engineering synthesis and design. The design project course draws on much of the student’s previous learning through a simulated industrial design project. Throughout the four-year program, courses in communication, humanities and social sciences are required because mechanical engineers must be able to communicate effectively in written, oral and graphical form.

Students may choose a concentration in mechanical, aerospace or petroleum engineering. Because of UAF’s unique location, special emphasis is placed on cold regions engineering problems. This fact is highlighted in the technical elective, Arctic engineering. Candidates for the B.S. degree in mechanical engineering are required to take the State of Alaska Fundamentals of Engineering examination in their general field.

Undergraduate students who plan to pursue graduate studies in engineering may also choose an accelerated degree for a master’s in mechanical engineering. This program speeds the process and allows qualified mechanical engineering students to complete both a Bachelor of Science and a Master of Science degree in five years.

Minimum Requirements for Mechanical Engineering Degree: B.S.: 130 credits; B.S./M.S.: 151 credits

Learn more about the bachelor’s degree in mechanical engineering (https://uaf.edu/academics/programs/bachelors/mechanical-
engineering.php), including an overview of the program, career opportunities and more.

Learn more about the bachelor/master's degree in mechanical engineering (https://uaf.edu/academics/programs/bachelors/mechanical-engineering-bs-ms.php), including an overview of the program, career opportunities and more.

College of Engineering and Mines
Department of Mechanical Engineering (http://cem.uaf.edu/me/)
907-474-7136

Programs

Degrees

• B.S., Mechanical Engineering (p. 260)
• B.S./M.S., Mechanical Engineering (p. 261)

B.S., Mechanical Engineering

Program Requirements

Students must earn a C- grade or better in each course.

Minimum Requirements for Mechanical Engineering B.S.: 130 credits

CONCENTRATIONS: AEROSPACE (P. 260), MECHANICAL (P. 260), PETROLEUM (P. 260)

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<td>ME F302</td>
<td>Dynamics of Machinery</td>
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<td>ME F308</td>
<td>Instrumentation and Measurement</td>
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<td>ME F334</td>
<td>Elements of Material Science/Engineering</td>
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<td>Machine Design</td>
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Fundamentals of Engineering (FE) Examination

Complete the Fundamentals of Engineering (FE) examination administered by the State of Alaska.

Concentrations

Complete one of the following concentrations: 9-12

Aerospace

Petroleum

1 Design project must be related to area of concentration.

2 Fulfills the baccalaureate capstone requirement.

Concentrations

AEROSPACE

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<td>ME F451</td>
<td>Aerodynamics</td>
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<td>ME F452</td>
<td>Introduction to Astrodynamics</td>
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<td>Propulsion Systems</td>
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MECHANICAL

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<td>Controls</td>
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<tr>
<td>ME F416</td>
<td>Design of Mechanical Equipment for the Petroleum Industry</td>
<td>3</td>
</tr>
<tr>
<td>ME F464</td>
<td>Corrosion Engineering</td>
<td>3</td>
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<tr>
<td>PETE F426</td>
<td>Drilling Engineering</td>
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PETROLEUM

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<tr>
<td>PETE F426</td>
<td>Drilling Engineering</td>
<td>3</td>
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</tbody>
</table>
B.S./M.S., Mechanical Engineering

Admission Requirements

Complete the following admission requirements:

1. ME major (junior preferred) or senior standing.
2. GPA 3.25 or above (based on minimum of 24 credits in ME major requirements). Students must maintain a cumulative GPA of 3.0 to remain in the program.
3. Submit a study goal statement.
4. Submit a UAF graduate application for admission.

Program Requirements

Minimum Requirements for Mechanical Engineering, B.S. / M.S.: 151 credits

Students must satisfy the General University Requirements for minimum grades for the respective B.S. or M.S. program (major) requirements.

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<td>Complete the general university requirements. (p. 154)</td>
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<td></td>
<td>B.S. Degree Requirements</td>
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<td>Complete the B.S. degree requirements. (p. 170)</td>
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<tr>
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<td>As part of the B.S. degree requirements, complete:</td>
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<tr>
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<td>MATH F252X Calculus II</td>
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<td>PHYS F211X General Physics I</td>
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<td>Master’s Degree Requirements</td>
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<td>ES F209 Statics</td>
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<tr>
<td></td>
<td>ES F210 Dynamics</td>
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<tr>
<td></td>
<td>ES F301 Engineering Analysis</td>
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</tr>
<tr>
<td></td>
<td>ES F307 Elements of Electrical Engineering</td>
<td>3</td>
</tr>
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<td></td>
<td>ES F331 Mechanics of Materials</td>
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</tr>
<tr>
<td></td>
<td>ES F341 Fluid Mechanics</td>
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<tr>
<td></td>
<td>ES F346 Introduction to Thermodynamics</td>
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<tr>
<td></td>
<td>ESM F450 Economic Analysis and Operations</td>
<td>3</td>
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<tr>
<td></td>
<td>MATH F253X Calculus III</td>
<td>4</td>
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<tr>
<td></td>
<td>MATH F302 Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ME F302 Dynamics of Machinery</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>ME F308 Instrumentation and Measurement</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ME F313 Mechanical Engineering Thermodynamics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ME F321 Industrial Processes</td>
<td>3</td>
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<tr>
<td></td>
<td>ME F334 Elements of Material Science/Engineering</td>
<td>3</td>
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<tr>
<td></td>
<td>ME F403 Machine Design</td>
<td>3</td>
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<tr>
<td></td>
<td>ME F408 Mechanical Vibrations</td>
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</table>

Fundamentals of Engineering Examination


M.S. Mechanical Engineering Program Requirements

<table>
<thead>
<tr>
<th>Code</th>
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<tr>
<td></td>
<td>ME F608 Advanced Dynamics</td>
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<td></td>
<td>ME F631 Advanced Mechanics of Materials</td>
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<td>ME F634 Advanced Materials Engineering</td>
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<tr>
<td></td>
<td>ME F641 Advanced Fluid Mechanics</td>
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<tr>
<td></td>
<td>ME F642 Advanced Heat Transfer</td>
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</tr>
</tbody>
</table>

Thesis or Non-Thesis Requirements

Complete the thesis or non-thesis option: 15

Thesis

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td></td>
<td>ME F699 Thesis</td>
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<tr>
<td></td>
<td>Electives</td>
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Non-Thesis

<table>
<thead>
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<th>Code</th>
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<tr>
<td></td>
<td>ME F698 Non-thesis Research/Project</td>
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</tr>
<tr>
<td></td>
<td>Electives</td>
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</tr>
</tbody>
</table>

1. Fulfills the baccalaureate capstone requirement.
2. Electives approved by student’s advisory committee with at least 3 credits at the graduate level
3. Electives approved by student’s advisory committee with at least 6 credits at the graduate level

Note: This degree program must be completed in seven years or the student will be disqualified from the program. If a student is disqualified for exceeding the seven-year limit, a mechanical engineering B.S. degree will be awarded if:

1. course work is completed in 10 years, and
2. the student meets all ME B.S. requirements.

Military Science and Leadership

Minor Only

The Army Reserve Officers' Training Program is America's primary program for training military officers. The Nanook Battalion is a cooperative effort agreed to by the Army and UAF as a means of providing junior officer leadership in the interest of national security. The goal of the program is to assist young men and women with leadership potential in obtaining commissions in the Army Reserve, National Guard or regular Army.

Military science and leadership is an approved minor for the B.A. degree. Army instructors train students in leadership, management and decision-making through academic instruction and practical experience laboratories. These instructors impart qualities necessary for the Army officer and civilian executive.

ROTC is divided into the basic course for freshmen and sophomores and the advanced course for juniors and seniors. Programs and courses can be adjusted to meet specific needs of individual students who desire to enroll but are past their freshman year.
Basic military science courses are open to all students regardless of whether or not they intend to seek an Army commission. There is no military obligation incurred by enrolling in any of the basic courses.

Students who complete the basic course and desire to pursue the program for a commission may apply for enrollment in the advanced course. A special basic camp, two-year program is available for transfer students and others who were unable to take ROTC prior to their last two years in school. This program allows immediate acceleration into the advanced course. Students should consult the professor of military science prior to June 1 annually for information concerning the basic camp. Students with prior military service may also apply for immediate enrollment as an advanced course student. Applicants must be physically qualified and be selected by the professor of military science. The criterion for selection is based on both academic proficiency and leadership potential. Students who wish to enroll in advanced classes but do not desire to earn a commission may do so with the approval of the department head.

There are many activities sponsored by the Nanook Battalion. The ROTC Color Guard team opens UAF hockey, basketball and other sporting and community events. They provide a recognized trained and dedicated guard for the national colors during the national anthem and opening ceremony. The Ranger Challenge team represents the Nanook Battalion and UAF in an annual military skill-based competition in Hawaii. The Nanook Battalion has a complete set of match grade rifles and pistols for marksmanship training. Army training such as Airborne School, Air Assault School, Northern Warfare Training and Mountaineering School are also offered to students.

At an annual UAF ceremony, awards are presented for outstanding academic, athletic and leadership achievement, as well as excellence in ROTC skills.

Completion of the advanced program will lead to service in the Army as a commissioned officer. Students who compete for a commission are provided a monthly stipend. Advanced course students receive a monthly subsistence allowance during the school year. This allowance is tax free. Students enrolled in military science are furnished uniforms and texts by the department. Army ROTC scholarships are available for tuition and lab fees, and provide a book allowance in addition to the stipend. Scholarships are awarded for two, three or four years on a competitive basis. Interested students should contact the Military Science Department for further details.

Minimum Requirements for Military Science and Leadership Minor: 19 credits

School of Management
Department of Military Science and Leadership (http://www.uaf.edu/rotc/)
907-474-7501

Programs
Minor
• Minor, Military Science and Leadership (p. 262)

Minor, Military Science Leadership
Program Requirements
Minimum Requirements for Military Science and Leadership Minor: 19 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MILS electives</td>
<td></td>
<td>19</td>
</tr>
</tbody>
</table>

1 Electives must be approved by the department.

Mining Engineering
B.S. Degree

As the nation’s northernmost accredited mining engineering program, our mission is to advance and disseminate knowledge for exploration, evaluation, development and efficient production of mineral and energy resources with assurance of the health and safety of persons involved and protection of the environment, through creative teaching, research and public service with an emphasis on Alaska, the North and its diverse peoples.

The mining engineering program emphasizes engineering as it applies to the exploration and development of mineral resources and the economics of the business of mining. The program offers specializations in exploration, mining or mineral beneficiation.

Students are prepared for job opportunities with mining and construction companies, consulting and research firms, equipment manufacturers, investment and commodity firms in the private sector, as well as with state and federal agencies.

The mining engineering program educational objectives are to graduate competent engineers who:

- are employed in the mineral and energy industries,
- can solve problems germane to Alaska, and
- are professionals and who understand the need to stay technically current.

Mining engineers may aspire to, and achieve, the highest positions in the industry: operating or engineering management, government agency director or entrepreneur. Starting salaries are among the highest in the engineering profession.

Students may initiate their mining engineering program in Anchorage and transfer to Fairbanks upon completion of their freshman or sophomore year. Anchorage students intending to transfer to Fairbanks should contact faculty of the UAF Mining Engineering Department.

Candidates for the B.S. degree in mining engineering must take the State of Alaska Fundamentals of Engineering examination. The Fundamentals of Engineering examination is a first step toward registration as a professional engineer.

The minor in mining engineering provides non-mining engineering students with an opportunity to acquire employable skills in the mining profession. Students in the mining engineering minor will be trained in a broad variety of topics such as mine ventilation, ground control, mine operation, economics, environmental law and labor management.
Students will have the choice of other mining topics to make up the minor requirements.

Learn more information about the mining engineering program’s mission, goals and educational objectives (http://cem.uaf.edu/mingeo/abet/).

Minimum Requirements for Mining Engineering Bachelor’s Degree: 132 credits

Learn more about the bachelor’s degree in mining engineering (https://uaf.edu/academics/programs/bachelors/mining-engineering.php), including an overview of the program, career opportunities and more.

College of Engineering and Mines
Department of Mining and Geological Engineering (http://cem.uaf.edu/mingeo/)
907-474-7388

**Programs**

**Degree**
- B.S., Mining Engineering (p. 263)

**Minor**
- Minor, Mining Engineering (p. 263)

**B.S., Mining Engineering**

**Program Requirements**
Students must earn a C- grade or better in each course.

**Minimum Requirements for Mining Engineering B.S.: 132 credits**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>General University Requirements</strong></td>
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</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (p. 154)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>General Education Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general education requirements. (p. 157)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>As part of the general education requirements, complete:</td>
<td></td>
</tr>
<tr>
<td>CHEM F105X</td>
<td>General Chemistry I</td>
<td></td>
</tr>
<tr>
<td>CHEM F106X</td>
<td>General Chemistry II</td>
<td></td>
</tr>
<tr>
<td>MATH F251X</td>
<td>Calculus I</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>B.S. Degree Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the B.S. degree requirements. (p. 170)</td>
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</tr>
<tr>
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<td>As part of the B.S. degree requirements, complete:</td>
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<tr>
<td>LS F101X</td>
<td>Library Information and Research</td>
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<tr>
<td>MATH F252X</td>
<td>Calculus II</td>
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<tr>
<td>PHYS F211X</td>
<td>General Physics I</td>
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<tr>
<td>PHYS F212X</td>
<td>General Physics II</td>
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<td><strong>Mining Engineering Program Requirements</strong></td>
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<tr>
<td>ES F208</td>
<td>Mechanics</td>
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<td>ES F307</td>
<td>Elements of Electrical Engineering</td>
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<td>ES F331</td>
<td>Mechanics of Materials</td>
<td>3</td>
</tr>
<tr>
<td>ES F341</td>
<td>Fluid Mechanics</td>
<td>4</td>
</tr>
<tr>
<td>ES F346</td>
<td>Introduction to Thermodynamics</td>
<td>3</td>
</tr>
<tr>
<td>GE F261</td>
<td>General Geology for Engineers</td>
<td>3</td>
</tr>
<tr>
<td>GEOS F262</td>
<td>Rocks and Minerals</td>
<td>3</td>
</tr>
<tr>
<td>GEOS F332</td>
<td>Ore Deposits and Structure</td>
<td>3</td>
</tr>
<tr>
<td>MATH F253X</td>
<td>Calculus III</td>
<td>4</td>
</tr>
<tr>
<td>MATH F302</td>
<td>Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>MIN F103</td>
<td>Introduction to Mining Engineering</td>
<td>1</td>
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<tr>
<td>MIN F104</td>
<td>Mining Safety and Operations Laboratory</td>
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<tr>
<td>MIN F202</td>
<td>Mine Surveying</td>
<td>3</td>
</tr>
<tr>
<td>MIN F225</td>
<td>Quantitative Methods in Mining Engineering</td>
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</tr>
<tr>
<td>MIN F226</td>
<td>Mine Development</td>
<td>2</td>
</tr>
<tr>
<td>MIN F301</td>
<td>Mine Plant Design</td>
<td>3</td>
</tr>
<tr>
<td>MIN F302</td>
<td>Underground Mine Environmental Engineering</td>
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<tr>
<td>MIN F313</td>
<td>Introduction to Mineral Preparation</td>
<td>3</td>
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<tr>
<td>MIN F370</td>
<td>Rock Mechanics</td>
<td>3</td>
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<tr>
<td>MIN F407</td>
<td>Mine Reclamation and Environmental Management</td>
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<td>MIN F408</td>
<td>Mineral Valuation and Economics</td>
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<td>MIN F409</td>
<td>Operations Research and Computer Applications in Mineral Industry</td>
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<td>MIN F443</td>
<td>Principles and Applications of Industrial Explosives</td>
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<tr>
<td>MIN F454</td>
<td>Underground Mining Methods</td>
<td>3</td>
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<tr>
<td>MIN F482</td>
<td>Computer-aided Mine Design:VULCAN</td>
<td>3</td>
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<tr>
<td>MIN F484</td>
<td>Surface Mining Methods</td>
<td>2</td>
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<tr>
<td>MIN F489</td>
<td>Mining Design Project I</td>
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<tr>
<td>MIN F490</td>
<td>Mining Design Project II</td>
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<tr>
<td>MIN F485</td>
<td>Mining Engineering Exit Interview</td>
<td>0</td>
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</table>

**Recommended Technical Electives**

- Complete 3 credits from the following: 2
- GE F440 | Slope Stability                         | 3       |
- MIN F401 | Mine Site Field Trips                   |         |
- MIN F415 | Coal Preparation                        |         |

**Approved technical electives**

- **Fundamentals of Engineering (FE) Examination**
  - Complete the Fundamentals of Engineering (FE) examination administered by the State of Alaska.

  1. Fulfills the baccalaureate capstone requirement.
  2. Students must plan their elective courses in consultation with their mining engineering faculty advisor. Technical electives are selected from the list of the approved technical electives for mining engineering program and other programs course listing. All elective courses must be approved by the student’s faculty advisor.

**Minor, Mining Engineering**

**Program Requirements**
Students must earn a C- grade or better in each course.
Minimum Requirements for Mining Engineering Minor: 15 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MIN F103</td>
<td>Introduction to Mining Engineering</td>
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<tr>
<td>MIN F104</td>
<td>Mining Safety and Operations Laboratory</td>
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</tr>
<tr>
<td>MIN F226</td>
<td>Mine Development</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Complete 11-12 MIN credits from advisor-approved electives</td>
<td>11-12</td>
</tr>
</tbody>
</table>

Music

B.A., B.M. Degrees

The music curriculum is designed to satisfy cultural and professional objectives. The B.A. degree in music provides broad, liberal education options for concentrations in general music, music theory, music history and music composition. The B.M. degree in music education offers thorough preparation in teacher training and develops excellence in music performance areas. The B.M. degree in music performance offers intensive specialization for those desiring professional training in music performance.

The Music Department is a full member of the National Association of Schools of Music, the national accrediting organization.

NOTES FOR ALL UNDERGRADUATE MUSIC DEGREES

The various programs, music ensembles and organizations in the department offer opportunities for students in all academic divisions of the university. Music majors are required to earn a minimum of 4 large ensemble credits in the B.A. program, a minimum of 6 large ensemble credits in the B.M. music education program, and a minimum of 8 large ensemble credits in the B.M. music performance program. Large ensembles include: MUS F101, MUS F117, MUS F203, MUS F205, MUS F211. Wind and percussion instrumentalists are required to take a minimum of 4 credits in MUS F205. Piano majors may substitute up to 2 credits of MUS F307.

Each student (major or non-major) who enrolls in private applied lessons must be concurrently enrolled in a large ensemble. Requirements for students registered for class lessons vary with disciplines and are at the discretion of the instructor.

Attendance at recitals and concerts provides students with a variety of musical experiences that expand their regular curriculum. Registration for MUS F190 recital attendance is mandatory until majors and minors have passed the number of semesters required for their program: two semesters for the minor, four semesters for the B.A., six semesters for the B.M. in music education, and eight semesters for the B.M. in music performance. All applied music students enrolled in MUS F261 or higher are required to perform in at least one Music at One program during each semester of study.

At the end of each semester, all music majors must demonstrate a satisfactory level of proficiency of performance (Performance Juries) in their applied instrumental area in order to advance to the next level of study. At the discretion of music faculty, a student may be held at the F200 level to further prepare to pass requirements for admission to upper-division study. Competency levels required for each degree must be achieved in one applied instrumental area.

Music students must earn a C grade or better for each music course in their major program in order for that course to count as a completed degree requirement. MUS F493 is repeatable up to 6 credits. MUS F307, MUS F313, MUS F317 are repeatable for credit. MUS F161-MUS F162, MUS F261-MUS F262, MUS F361-MUS F362, MUS F461-MUS F462 are repeatable up to 6 credits.

Minimum Requirements for Music and Music Education Degrees: B.A.: 120 credits; B.M.: 122-145 credits

Learn more about the bachelor's degree in music (https://uaf.edu/academics/programs/bachelors/music.php), including an overview of the program, career opportunities and more.

Learn more about the bachelor's degree in music education (https://uaf.edu/academics/programs/bachelors/music-education.php), including an overview of the program, career opportunities and more.

College of Liberal Arts
Department of Music (http://www.uaf.edu/music/)
907-474-7555

Programs

Degrees

- B.A., Music (p. 264)
- B.M., Music (Performance) (p. 267)
- B.M., Music Education (p. 266)

Minor

- Minor, Music (p. 268)

B.A., Music

Program Requirements

Students must earn a C grade or better in each course.

Minimum Requirements for Music B.A.: 120 credits

CONCENTRATIONS: GENERAL (P. 265), MUSIC THEORY (P. 265), MUSIC HISTORY (P. 265), MUSIC COMPOSITION (P. 265)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>General University Requirements</td>
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<tr>
<td></td>
<td>Complete the general university requirements. (p. 154)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>General Education Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general education requirements. (p. 157)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>B.A. Degree Requirements</td>
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</tr>
<tr>
<td></td>
<td>Complete the B.A. degree requirements. (p. 164)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Audition</td>
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<tr>
<td></td>
<td>Complete an audition on the major instrument.</td>
<td></td>
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<tr>
<td></td>
<td>Music Program Requirements</td>
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<tr>
<td>MUS F131</td>
<td>Basic Music Theory I</td>
<td>6</td>
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<tr>
<td>MUS F132</td>
<td>Basic Music Theory II</td>
<td></td>
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</table>
MUS F133 and MUS F134
Basic Ear Training I and Basic Ear Training II 4

MUS F152 and MUS F153 and MUS F154
Functional Piano I and Functional Piano II and Functional Piano III 3

MUS F161 and MUS F162 and MUS F261 and MUS F262
Private Lessons and Private Lessons and Private Lessons and Private Lessons (major area) 8

MUS F190
Recital Attendance 0

MUS F221 and MUS F222
History of Western Music I and History of Western Music II 6

MUS F223X
Alaska Native Music 3

MUS F231 and MUS F232
Advanced Music Theory I and Advanced Music Theory II 4

MUS F233 and MUS F234
Advanced Ear Training I and Advanced Ear Training II 2

MUS F253
Piano Proficiency 4

MUS F331
Form and Analysis 3

MUS F347
Senior Project 4

Large ensembles 5

Concentrations
Complete one of the following concentrations: 21-24

General
Music Theory
Music History
Music Composition

1 As necessary to complete piano proficiency requirements.

2 Students with voice as their major instrument are also required to complete MUS F245 or MUS F246.

3 Enrollment only following completion of piano proficiency requirements.

4 Fulfills the baccalaureate capstone requirement.

5 Music majors in the B.A. program will be required to earn a minimum of 4 credits in large ensembles: MUS F101, MUS F117, MUS F203, MUS F205, MUS F211. Please work closely with your faculty advisor to determine which large ensemble course will fulfill this requirement.

CONCENTRATIONS

General

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS F410</td>
<td>Women in Music History</td>
<td>3</td>
</tr>
<tr>
<td>MUS F421</td>
<td>Music Before 1620</td>
<td>3</td>
</tr>
<tr>
<td>MUS F422</td>
<td>Music in the 17th and 18th Centuries</td>
<td>3</td>
</tr>
<tr>
<td>MUS F423</td>
<td>Music of the 19th Century</td>
<td>3</td>
</tr>
<tr>
<td>MUS F424</td>
<td>Music Since 1900</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete 6 credits from the following: 6

MUS F410 Women in Music History
MUS F421 Music Before 1620
MUS F422 Music in the 17th and 18th Centuries
MUS F423 Music of the 19th Century
MUS F424 Music Since 1900

Complete 6 credits from the following: 6

MUS F207 UAF Jazz Band
MUS F307 Chamber Music
MUS F351 Conducting
MUS F361 Private Lessons (major area)
MUS F362 Private Lessons (major area)
MUS F426 Music Literature

MUS F435 Private Lessons in Music Composition

Music Composition

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS F432</td>
<td>Orchestration and Arranging</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete the following:

MUS F432 Orchestration and Arranging 3
B.M., Music Education

Admission Requirements

Complete the following admission requirement:

- Audition on the major instrument

Program Requirements

Students must earn a C grade or better in each course.

Minimum Requirements for Music Education B.M.: 130-145 credits

CONCENTRATIONS: ELEMENTARY (P. 266), SECONDARY (P. 267), K-12 (P. 267)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>MUED F316</td>
<td>Practicum in Middle-level Music Methods</td>
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</tr>
<tr>
<td>MUS F131</td>
<td>Basic Music Theory I</td>
<td>6</td>
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<tr>
<td>and MUS F132</td>
<td>Basic Music Theory II</td>
<td>4</td>
</tr>
<tr>
<td>MUS F133</td>
<td>Basic Ear Training I</td>
<td></td>
</tr>
<tr>
<td>and MUS F134</td>
<td>Basic Ear Training II</td>
<td>3</td>
</tr>
<tr>
<td>MUS F152</td>
<td>Functional Piano I</td>
<td>14</td>
</tr>
<tr>
<td>and MUS F153</td>
<td>Functional Piano II</td>
<td></td>
</tr>
<tr>
<td>and MUS F154</td>
<td>Functional Piano III</td>
<td></td>
</tr>
<tr>
<td>MUS F161</td>
<td>Private Lessons</td>
<td></td>
</tr>
<tr>
<td>and MUS F162</td>
<td>Private Lessons</td>
<td></td>
</tr>
<tr>
<td>and MUS F261</td>
<td>Private Lessons</td>
<td></td>
</tr>
<tr>
<td>and MUS F262</td>
<td>Private Lessons</td>
<td></td>
</tr>
<tr>
<td>and MUS F361</td>
<td>Private Lessons</td>
<td></td>
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<tr>
<td>and MUS F362</td>
<td>Private Lessons</td>
<td></td>
</tr>
<tr>
<td>MUS F190</td>
<td>Recital Attendance</td>
<td>0</td>
</tr>
<tr>
<td>MUS F221</td>
<td>History of Western Music I</td>
<td>6</td>
</tr>
<tr>
<td>and MUS F222</td>
<td>History of Western Music II</td>
<td></td>
</tr>
<tr>
<td>MUS F223X</td>
<td>Alaska Native Music</td>
<td>3</td>
</tr>
<tr>
<td>MUS F231</td>
<td>Advanced Music Theory I</td>
<td>4</td>
</tr>
<tr>
<td>and MUS F232</td>
<td>Advanced Music Theory II</td>
<td></td>
</tr>
<tr>
<td>MUS F233</td>
<td>Advanced Ear Training I</td>
<td>2</td>
</tr>
<tr>
<td>and MUS F234</td>
<td>Advanced Ear Training II</td>
<td></td>
</tr>
<tr>
<td>MUS F253</td>
<td>Piano Proficiency</td>
<td>0</td>
</tr>
<tr>
<td>MUS F331</td>
<td>Form and Analysis</td>
<td>3</td>
</tr>
<tr>
<td>MUS F351</td>
<td>Conducting</td>
<td>3</td>
</tr>
<tr>
<td>MUS F390</td>
<td>Junior Recital</td>
<td>0</td>
</tr>
<tr>
<td>MUS F432</td>
<td>Orchestration and Arranging</td>
<td>3</td>
</tr>
</tbody>
</table>

Concentrations

Complete one of the following concentrations: 6-21

Elementary

Secondary

K-12

1 Music majors in the B.M. program will be required to earn a minimum of 6 credits in large ensembles: MUS F101, MUS F117, MUS F203, MUS F205, MUS F211. Please work closely with your faculty advisor to determine which large ensemble course will fulfill this requirement.

2 Students with voice as their major instrument are also required to complete MUS F245 or MUS F246.

Note: Music education majors must have completed the necessary prerequisites and be admitted to the teacher education program prior to acceptance for placement in student teaching.

CONCENTRATIONS

Elementary

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED F452</td>
<td>Elementary Internship</td>
<td>3-12</td>
</tr>
<tr>
<td>MUED F309</td>
<td>Elementary School Music Methods</td>
<td>3</td>
</tr>
</tbody>
</table>

Secondary

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED F452</td>
<td>Elementary Internship</td>
<td>3-12</td>
</tr>
<tr>
<td>MUED F309</td>
<td>Elementary School Music Methods</td>
<td>3</td>
</tr>
</tbody>
</table>

K-12

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED F452</td>
<td>Elementary Internship</td>
<td>3-12</td>
</tr>
<tr>
<td>MUED F309</td>
<td>Elementary School Music Methods</td>
<td>3</td>
</tr>
</tbody>
</table>
### Secondary Code

Complete the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED F453</td>
<td>Secondary Internship</td>
<td>3-12</td>
</tr>
<tr>
<td>MUED F405</td>
<td>Secondary School Music Methods</td>
<td>3</td>
</tr>
</tbody>
</table>

### K-12 Code

Complete the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED F454</td>
<td>Student Teaching K-12 ¹</td>
<td>15</td>
</tr>
<tr>
<td>MUED F309</td>
<td>Elementary School Music Methods</td>
<td>3</td>
</tr>
<tr>
<td>MUED F405</td>
<td>Secondary School Music Methods</td>
<td>3</td>
</tr>
</tbody>
</table>

¹ Fulfills the baccalaureate capstone requirement.

### B.M., Music Performance

#### Admission Requirements

Complete the following admission requirement:

- Audition on the major instrument

#### Program Requirements

Students must earn a C grade or better in each course.

### Minimum Requirements for Music (Performance) B.M.: 122 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
</table>

**General University Requirements**

Complete the general university requirements. (p. 154)

**General Education Requirements**

Complete the general education requirements. (p. 157)

As part of the general education requirements, voice majors must complete:

10 credits foreign language ¹

**B.M. Degree Requirements**

Complete the B.M. degree requirements. (p. 168)

**Music (Performance) Program Requirements**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
</table>

**MUS F131 and MUS F132** Basic Music Theory I and Basic Music Theory II 6

**MUS F133 and MUS F134** Basic Ear Training I and Basic Ear Training II 4

**MUS F152 and MUS F153 and MUS F154** Functional Piano I and Functional Piano II and Functional Piano III 3

**MUS F161 and MUS F162 and MUS F261 and MUS F262 and MUS F361 and MUS F362 and MUS F461 and MUS F462 and MUS F461 and MUS F462** Private Lessons 24

**MUS F221 and MUS F222** History of Western Music I and History of Western Music II 6

**MUS F223X** Alaska Native Music 3

**MUS F231 and MUS F232** Advanced Music Theory I and Advanced Music Theory II 4

**MUS F233 and MUS F234** Advanced Ear Training I and Advanced Ear Training II 2

**MUS F253** Piano Proficiency 0

**MUS F331** Form and Analysis 3

**MUS F351** Conducting 3

**MUS F390** Junior Recital 0

Large ensembles ³ 8

**MUS F190** Recital Attendance 0

**MUS F490** Senior Recital ⁴ 0

Complete 6 credits from the following:

- MUS F431 Counterpoint
- MUS F432 Orchestration and Arranging
- MUS F433 Seminar in Musical Composition
- MUS F434 Advanced Harmonic Analysis
- MUS F435 Private Lessons in Music Composition

Complete 6 credits from the following: ⁵ 6

- MUS F410 Women in Music History
- MUS F421 Music Before 1620
- MUS F422 Music in the 17th and 18th Centuries
- MUS F423 Music of the 19th Century
- MUS F424 Music Since 1900

Complete 9 credits from the following: ⁵ 9

- MUS F161 Private Lessons
- MUS F162 Private Lessons
- MUS F261 Private Lessons
- MUS F262 Private Lessons
- MUS F361 Private Lessons
- MUS F362 Private Lessons
- MUS F461 Private Lessons
- MUS F462 Private Lessons
- MUS F307 Chamber Music
- MUS F313 Opera Workshop
- MUS F317 Arctic Chamber Orchestra
- MUS F332 Introduction to Computer-based Music Technology
- MUS F426 Music Literature
- MUS F493 Special Topics

¹ Selection of the language will be made in consultation with the voice advisor.

² Students with voice as their major instrument are also required to complete MUS F245 or MUS F246.

³ Music majors in the B.M. program will be required to earn a minimum of 8 credits in large ensembles: MUS F101, MUS F117, MUS F203, MUS F205, MUS F211. Students should work closely with their faculty advisor to determine which large ensemble course will fulfill this requirement.

⁴ Fulfills the baccalaureate capstone requirement.

⁵ Courses listed that are not already applied to program requirements may also meet this requirement.
Minor, Music

Program Requirements

Students must earn a C grade or better in each course.

Minimum Requirements for Music Minor: 18 credits

Students must select from one of the options below:

OPTION A (NONPERFORMANCE EMPHASIS)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Minor Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete 12 credits from the following:</td>
<td>12</td>
</tr>
<tr>
<td>MUS F103X</td>
<td>Music Fundamentals</td>
<td></td>
</tr>
<tr>
<td>MUS F131</td>
<td>Basic Music Theory I</td>
<td></td>
</tr>
<tr>
<td>MUS F132</td>
<td>Basic Music Theory II</td>
<td></td>
</tr>
<tr>
<td>MUS F133</td>
<td>Basic Ear Training I</td>
<td></td>
</tr>
<tr>
<td>MUS F134</td>
<td>Basic Ear Training II</td>
<td></td>
</tr>
<tr>
<td>MUS F221</td>
<td>History of Western Music I</td>
<td></td>
</tr>
<tr>
<td>MUS F222</td>
<td>History of Western Music II</td>
<td></td>
</tr>
<tr>
<td>MUS F223X</td>
<td>Alaska Native Music</td>
<td></td>
</tr>
<tr>
<td>MUS F231</td>
<td>Advanced Music Theory I</td>
<td></td>
</tr>
<tr>
<td>MUS F232</td>
<td>Advanced Music Theory II</td>
<td></td>
</tr>
<tr>
<td>MUS F410</td>
<td>Women in Music History</td>
<td></td>
</tr>
<tr>
<td>MUS F421</td>
<td>Music Before 1620</td>
<td></td>
</tr>
<tr>
<td>MUS F422</td>
<td>Music in the 17th and 18th Centuries</td>
<td>4</td>
</tr>
<tr>
<td>MUS F423</td>
<td>Music of the 19th Century</td>
<td></td>
</tr>
<tr>
<td>MUS F424</td>
<td>Music Since 1900</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete 2 credits from the following music large ensemble courses:</td>
<td>2</td>
</tr>
<tr>
<td>MUS F101</td>
<td>University Chorus</td>
<td></td>
</tr>
<tr>
<td>MUS F117</td>
<td>Northern Lights String Orchestra</td>
<td></td>
</tr>
<tr>
<td>MUS F203</td>
<td>Fairbanks Symphony Orchestra</td>
<td></td>
</tr>
<tr>
<td>MUS F205</td>
<td>Wind Symphony</td>
<td></td>
</tr>
<tr>
<td>MUS F211</td>
<td>Choir of the North</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete 4 credits from the following courses in lessons or ensemble:</td>
<td>4</td>
</tr>
<tr>
<td>MUS F151</td>
<td>Class Lesson</td>
<td></td>
</tr>
<tr>
<td>MUS F161</td>
<td>Private Lessons</td>
<td></td>
</tr>
<tr>
<td>MUS F162</td>
<td>Private Lessons</td>
<td></td>
</tr>
<tr>
<td>MUS F261</td>
<td>Private Lessons</td>
<td></td>
</tr>
<tr>
<td>MUS F262</td>
<td>Private Lessons</td>
<td></td>
</tr>
<tr>
<td>MUS F361</td>
<td>Private Lessons</td>
<td></td>
</tr>
<tr>
<td>MUS F362</td>
<td>Private Lessons</td>
<td></td>
</tr>
<tr>
<td>MUS F461</td>
<td>Private Lessons</td>
<td></td>
</tr>
<tr>
<td>MUS F462</td>
<td>Private Lessons</td>
<td></td>
</tr>
<tr>
<td>MUS F207</td>
<td>UAF Jazz Band</td>
<td></td>
</tr>
<tr>
<td>MUS F190</td>
<td>Recital Attendance (two semesters)</td>
<td></td>
</tr>
</tbody>
</table>

Note: No substitutions are permitted between options. It is recommended that students contact the Music Department for program advising before registering for music classes. All performance courses are subject to course enrollment and studio space limitations. Large ensemble courses are available subject to current vacancies for particular instrumental areas. Private lessons and large ensemble courses may require that students pass a performance audition. Prerequisite requirements apply.

OPTION B (PERFORMANCE EMPHASIS)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Minor Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete 6 credits from the following courses:</td>
<td>6</td>
</tr>
</tbody>
</table>

Natural Resources and Environment

B.S. Degree

The sustainability of society and its environment require an interdisciplinary approach to making and implementing natural resource and environmental decisions. The natural resources and environment degree integrates knowledge in natural science, policy, economics and human values to advance the sustainable management of natural resources and agricultural systems. Students learn through a variety of approaches, including classroom instruction, hands-on laboratory experiences, and opportunities for internships and independent research.
under the guidance of a faculty mentor. Successful graduates will be qualified for employment in a broad range of private enterprise, government agencies and nonprofit organizations in the various natural resources fields, and will be well-equipped for graduate studies. The natural resources and environment minor strengthens students’ degree programs by providing a broad introduction into how natural and social sciences, the humanities, and policy should be integrated in order to make well-founded decisions.

Minimum Requirements for Natural Resources and Environment Bachelor’s Degree: 120 credits

Learn more about the bachelor’s degree in natural resources and environment (https://uaf.edu/academics/programs/bachelors/natural-resources-environment.php), including an overview of the program, career opportunities and more.

College of Natural Science and Mathematics
Department of Natural Resources and Environment (http://www.uaf.edu/snre/)
907-474-7188

Programs

Degree

• B.S., Natural Resources and Environment (p. 269)

Minor

• Minor, Natural Resources and Environment (p. 270)
• Minor, Forest Management (p. 269)
• Minor, Sustainable Agriculture (p. 270)

B.S., Natural Resources and Environment

Program Requirements

Students must earn a C- grade or better in each course.

Minimum Requirements for Natural Resources and Environment B.S.: 120 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>General University Requirements</strong></td>
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</tr>
<tr>
<td></td>
<td>Complete the general university requirements.  (p. 154)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>General Education Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general education requirements. (p. 157)</td>
<td></td>
</tr>
<tr>
<td>As part of the general education requirements, complete:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHEM F105X</td>
<td>General Chemistry I</td>
<td></td>
</tr>
<tr>
<td></td>
<td>As part of the general education requirements, complete one of the following:</td>
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</tr>
<tr>
<td>MATH F230X</td>
<td>Essential Calculus with Applications</td>
<td></td>
</tr>
<tr>
<td>MATH F251X</td>
<td>Calculus I</td>
<td></td>
</tr>
<tr>
<td>MATH F252X</td>
<td>Calculus II</td>
<td></td>
</tr>
<tr>
<td>MATH F253X</td>
<td>Calculus III</td>
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<tr>
<td></td>
<td><strong>B.S. Degree Requirements</strong></td>
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<tr>
<td></td>
<td>Complete the B.S. degree requirements. (p. 170)</td>
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As part of the B.S. degree requirements, complete:

<table>
<thead>
<tr>
<th>Code</th>
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<tbody>
<tr>
<td>BIOL F115X</td>
<td>Fundamentals of Biology I</td>
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<tr>
<td>BIOL F116X</td>
<td>Fundamentals of Biology II</td>
<td></td>
</tr>
<tr>
<td>NRM F303X</td>
<td>Environmental Ethics and Actions</td>
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</tr>
<tr>
<td>STAT F200X</td>
<td>Elementary Statistics</td>
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</table>

**Natural Resources and Environment Program Requirements**

<table>
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<tr>
<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>ECON F235X</td>
<td>Introduction to Natural Resource Economics</td>
<td>3</td>
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<tr>
<td>NRM F101</td>
<td>Natural Resources Conservation and Policy</td>
<td>3</td>
</tr>
<tr>
<td>NRM F111</td>
<td>Introduction to Sustainability Science</td>
<td>3</td>
</tr>
<tr>
<td>NRM F210</td>
<td>Principles of Sustainable Agriculture</td>
<td>3</td>
</tr>
<tr>
<td>NRM F240</td>
<td>Natural Resources Measurement and Inventory</td>
<td>3</td>
</tr>
<tr>
<td>NRM F277</td>
<td>Introduction to Conservation Biology</td>
<td>3</td>
</tr>
<tr>
<td>NRM F290</td>
<td>Field Course of Natural Resource Management</td>
<td>2</td>
</tr>
<tr>
<td>NRM F366</td>
<td>Survey Research in Natural Resources Management</td>
<td>3</td>
</tr>
<tr>
<td>NRM F370</td>
<td>Introduction to Watershed Management</td>
<td>3</td>
</tr>
<tr>
<td>NRM F375</td>
<td>Natural Resource Ecology</td>
<td>3</td>
</tr>
<tr>
<td>NRM F380</td>
<td>Soils and the Environment</td>
<td>3</td>
</tr>
<tr>
<td>NRM F403</td>
<td>Environmental Decision-Making</td>
<td>3</td>
</tr>
<tr>
<td>NRM F430</td>
<td>Resource Management Planning</td>
<td>3</td>
</tr>
<tr>
<td>GEOG/GEOS F483</td>
<td>Research Design, Writing and</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Presentation Methods</td>
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</table>

**GIS Courses**

Complete one from the following:

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<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NRM F338</td>
<td>Introduction to Geographic Information Systems</td>
<td></td>
</tr>
<tr>
<td>NRM F369</td>
<td>GIS and Remote Sensing for Natural Resources</td>
<td></td>
</tr>
<tr>
<td>NRM F435</td>
<td>GIS Analysis</td>
<td></td>
</tr>
</tbody>
</table>

**Policy/Law Courses**

<table>
<thead>
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<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>NRM F204</td>
<td>Public Lands Law and Policy</td>
<td>3</td>
</tr>
<tr>
<td>or NRM F407</td>
<td>Environmental Law</td>
<td></td>
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</tbody>
</table>

**Minor, Pre-vet, Support Field**

Complete a minor, pre-vet, or 15 credits in a support field 2 15

1 Fulfills the baccalaureate capstone requirement.
2 Complete a minor, pre-vet, or 15 credits in a support field which is a group of courses selected for its clear pertinence to a cohesive program. Support fields may include but are not limited to natural resources and environment, chemistry, communication, education, art, fisheries and wildlife management. Courses must be approved by the student’s academic advisor and department head prior to attaining senior standing. Note: students must take a total of 39 upper-division credits.

**Minor, Forest Management**

**Program Requirements**

Students must earn a C grade or better in each course.
Minimum Requirements for Forest Management Minor: 16 credits

Potential accreditation as a certified forester by the Society of American Foresters will require completion of the following NRM courses:
NRM F251, NRM F440, NRM F450, NRM F452, and NRM F453 in combination with the NRM B.S. degree (p. 269). Prerequisites required for the courses listed are part of the NRM degree program, but students from other programs will be required to complete the prerequisites specified for individual classes. NRM F452 also requires the completion of either BIOL F239 or NRM F211 as a requisite. These two courses are not required for the general NRM program and will not apply to the number of credits for the forest management minor.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NRM F240</td>
<td>Natural Resources Measurement and Inventory</td>
<td>3</td>
</tr>
<tr>
<td>NRM F251</td>
<td>Silvics and Dendrology</td>
<td>4</td>
</tr>
<tr>
<td>NRM F375</td>
<td>Natural Resource Ecology or BIOL F371</td>
<td>3</td>
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</table>

Complete at least 6 credits from the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>NRM F370</td>
<td>Introduction to Watershed Management</td>
<td>3</td>
</tr>
<tr>
<td>NRM F440</td>
<td>Silviculture</td>
<td>3</td>
</tr>
<tr>
<td>NRM F450</td>
<td>Forest Management</td>
<td>3</td>
</tr>
<tr>
<td>NRM F452</td>
<td>Forest Health and Protection</td>
<td>3</td>
</tr>
<tr>
<td>NRM F453</td>
<td>Harvesting and Utilization of Forest Products</td>
<td>3</td>
</tr>
</tbody>
</table>

Note: Students must complete at least 16 credits dedicated to the minor. If the student has taken courses to complete major requirements, the credits must be made up from additional minor-specific courses.

Minimum Requirements for Sustainable Agriculture Minor: 18 credits

Complete the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON F235X</td>
<td>Introduction to Natural Resource Economics</td>
<td>3</td>
</tr>
<tr>
<td>NRM F101</td>
<td>Natural Resources Conservation and Policy</td>
<td>3</td>
</tr>
<tr>
<td>NRM F210</td>
<td>Principles of Sustainable Agriculture</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete three of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NRM F211</td>
<td>Introduction to Applied Plant Science</td>
<td>3</td>
</tr>
<tr>
<td>NRM F220</td>
<td>Introduction to Animal Science</td>
<td>3</td>
</tr>
<tr>
<td>NRM F380</td>
<td>Soils and the Environment</td>
<td>3</td>
</tr>
<tr>
<td>NRM F303X</td>
<td>Environmental Ethics and Actions</td>
<td>3</td>
</tr>
<tr>
<td>NRM F403</td>
<td>Environmental Decision-Making</td>
<td>3</td>
</tr>
</tbody>
</table>

Note: Students majoring in NRM are not eligible for the sustainable agriculture minor.

Paralegal Studies Minor

The minor in paralegal studies is designed to provide you the opportunity to develop introductory knowledge in support for legal services or multiple areas of law.

This minor is a great choice for political science, justice or any Bachelor of Arts degree-seeking students who need to satisfy their minor requirement or Associate of Arts students who want to explore paralegal studies as an area of interest.

The minor is not designed to prepare students to work as paralegals and is not an American Bar Association accredited program of study.

Community and Technical College Department of Paralegal Studies (https://www.ctc.uaf.edu/programs/paralegal-studies/) 907-455-2800

Programs Minor

• Minor, Paralegal Studies (p. 270)

Degree

• A.A.S., Paralegal Studies (p. 145)

Minor, Paralegal Studies

Students must earn a C- grade or better in each course.
Minimum Requirements for Paralegal Studies Minor: 15 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLS F102</td>
<td>Introduction to Paralegal Studies</td>
<td>3</td>
</tr>
<tr>
<td>PLS electives</td>
<td></td>
<td>12</td>
</tr>
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</table>

Petroleum Engineering

B.S. Degree

The mission of the petroleum engineering program is to provide its students with quality education and training in the field of petroleum engineering through effective teaching, research and public service, with emphasis on Alaska petroleum resources.

Petroleum engineering offers a unique look at the challenging problems confronting the petroleum industry. This program requires an understanding of many disciplines including mathematics, physics, chemistry, geology and engineering science. Courses in petroleum engineering deal with drilling, formation evaluation, production, reservoir engineering, computer simulation and enhanced oil recovery. The curriculum prepares graduates to meet the demands of modern technology while emphasizing, whenever possible, the special problems encountered in Alaska. Located in one of the largest oil-producing states in the nation, the UAF petroleum engineering department offers one of the most modern and challenging degree programs available.

The petroleum engineering program educational objectives are:

1. Our graduates will have successful careers in the oil and gas industry by using technical knowledge and skills acquired to analyze real-world petroleum engineering problems, develop innovative solutions, and communicate these to meet the needs of multiple stakeholders.
2. Our graduates will demonstrate professionalism through continuing professional development throughout their career, and commitment to ethical standards and lifelong learning.
3. Our graduates will contribute significantly to the global petroleum engineering profession and they will exemplify the behaviors necessary to become industry leaders within and beyond Alaska.

Learn more about the petroleum engineering program mission, goals and educational objectives (http://cem.uaf.edu/abet/).

Minimum Requirements for Petroleum Engineering Bachelor's Degree: 133 credits

<table>
<thead>
<tr>
<th>Code</th>
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<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LS F101X</td>
<td>Library Information and Research</td>
<td></td>
</tr>
<tr>
<td>MATH F252X</td>
<td>Calculus II</td>
<td></td>
</tr>
<tr>
<td>PHYS F211X</td>
<td>General Physics I</td>
<td></td>
</tr>
<tr>
<td>PHYS F212X</td>
<td>General Physics II</td>
<td></td>
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</table>

Petroleum Engineering Program Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ES F201</td>
<td>Computer Techniques</td>
<td>3</td>
</tr>
<tr>
<td>ES F208</td>
<td>Mechanics</td>
<td>4</td>
</tr>
<tr>
<td>ES F331</td>
<td>Mechanics of Materials</td>
<td>3</td>
</tr>
<tr>
<td>ES F341</td>
<td>Fluid Mechanics</td>
<td>4</td>
</tr>
<tr>
<td>ES F346</td>
<td>Introduction to Thermodynamics</td>
<td>3</td>
</tr>
<tr>
<td>GE F261</td>
<td>General Geology for Engineers</td>
<td>3-4</td>
</tr>
<tr>
<td>or GEOS F101X</td>
<td>The Dynamic Earth</td>
<td></td>
</tr>
<tr>
<td>PETE F101</td>
<td>Fundamentals of Petroleum, Drilling and Production</td>
<td>3</td>
</tr>
<tr>
<td>PETE F301</td>
<td>Reservoir Rock and Fluid Properties</td>
<td>4</td>
</tr>
<tr>
<td>PETE F302</td>
<td>Well Logging</td>
<td>3</td>
</tr>
<tr>
<td>PETE F303</td>
<td>Reservoir Rock and Fluid Properties Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>PETE/GEOS F370</td>
<td>Sedimentology and Structural Geology for Petroleum Engineers</td>
<td>4</td>
</tr>
<tr>
<td>PETE F407</td>
<td>Petroleum Production Engineering</td>
<td>3</td>
</tr>
<tr>
<td>PETE F411</td>
<td>Drilling Fluids Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>PETE F421</td>
<td>Reservoir Characterization</td>
<td>3</td>
</tr>
<tr>
<td>PETE F426</td>
<td>Drilling Engineering</td>
<td>3</td>
</tr>
<tr>
<td>PETE F431</td>
<td>Natural Gas Engineering</td>
<td>2</td>
</tr>
<tr>
<td>PETE F456</td>
<td>Petroleum Evaluation and Economic Decisions</td>
<td>3</td>
</tr>
<tr>
<td>PETE F466</td>
<td>Petroleum Recovery Methods</td>
<td>3</td>
</tr>
<tr>
<td>PETE F476</td>
<td>Petroleum Reservoir Engineering</td>
<td>3</td>
</tr>
<tr>
<td>PETE F478</td>
<td>Well Test Analysis</td>
<td>2</td>
</tr>
<tr>
<td>PETE F481</td>
<td>Well Completions and Stimulation Design</td>
<td>3</td>
</tr>
<tr>
<td>PETE F487A</td>
<td>Petroleum Project Design</td>
<td>1,2</td>
</tr>
</tbody>
</table>
### Philosophy

**B.A. Degree**

The courses in philosophy are designed to confront students with fundamental problems of both Western and non-Western philosophical heritages and to introduce students to independent reflection on them, thus broadening their perspectives for various areas of specialization in science, the social sciences and humanities.

Minimum Requirements for Philosophy Bachelor’s Degree: 120 credits

Learn more about the bachelor’s degree in philosophy (https://uaf.edu/academics/programs/bachelors/philosophy.php), including an overview of the program, career opportunities and more.

College of Liberal Arts
Philosophy and Humanities Department (http://www.uaf.edu/philo/)
907-474-7007

### Minor, Philosophy

**Program Requirements**

Students must earn a C- grade or better in each course.

**Minimum Requirements for Philosophy Minor: 18 credits**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL F102X</td>
<td>Introduction to Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>PHIL F104X</td>
<td>Logic and Reasoning</td>
<td>3</td>
</tr>
<tr>
<td>PHIL F202</td>
<td>Introduction to Eastern Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>PHIL F351</td>
<td>History of Ancient Greek Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>PHIL F352</td>
<td>History of Modern Philosophy: Descartes to Kant</td>
<td>3</td>
</tr>
<tr>
<td>PHIL F471</td>
<td>Contemporary Philosophical Problems</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete 6 of the following electives: 18

- PHIL F108 Symbolic Logic
- PHIL F110 Introduction to Political Philosophy
- PHIL F322X Ethics
- PHIL F341 Theories of Knowledge
- PHIL F342 Theories of Reality
- PHIL F361 Philosophy in Literature
- PHIL F362 Feminist Philosophy
- PHIL F381 Topics in Logics
- PHIL F402 Biomedical and Research Ethics
- PHIL F411 Classical Political Theory
- PHIL F412 Modern Political Theory
- PHIL F421 Aesthetics
- PHIL F472 Ethics in International Affairs
- PHIL F481 Philosophy of Science
- PHIL F487 Conceptual Issues in Evolutionary Biology
- PHIL F493 Special Topics
- PHIL F499 B.A. Thesis in Philosophy

1 Satisfy the capstone requirement by passing PHIL F471.
Physics

B.S. Degree

Physics, together with mathematics and chemistry, provides the foundation for work in all fields of the physical sciences and engineering, and contributes greatly to other disciplines such as the biosciences and medicine.

The undergraduate curriculum provides a solid foundation in classical and modern physics, with emphasis on both its experimental and theoretical aspects. A student completing this curriculum can be well-prepared for advanced study in physics and related sciences, and for other careers in industry, government or the private sector that require refined abilities in problem-solving.

The physics concentration represents the classical undergraduate physics curriculum, while the applied physics concentration provides a solid foundation in general physics with the flexibility to include applied or interdisciplinary course work, aimed at e.g., engineering physics, biophysics or oceanography.

The atmospheric physics concentration is a solid foundation at the interface of physics, climate sciences and meteorology. The computational physics concentration is relevant for students seeking careers in any areas that require expertise in computational modeling and simulation of physical systems.

The technical management concentration provides an opportunity to combine basic knowledge of physics with an aptitude for leadership in business. Declared physics majors in good standing with appropriate grades, department mentoring and approval for some courses are, upon graduation, welcome to apply to the MBA program in UAF’s School of Management.

Minimum Requirements for Physics Bachelor’s Degree: 120 credits

Learn more about the bachelor’s degree in physics (https://uaf.edu/academics/programs/bachelors/physics.php), including an overview of the program, career opportunities and more.

College of Natural Science and Mathematics
Department of Physics (http://www.uaf.edu/physics/)
907-474-7339

Minor

• Minor, Physics (p. 275)

B.S., Physics

Program Requirements

Students must earn a C- grade or better in each course.

Minimum Requirements for Physics B.S.: 120 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MATH F251X</td>
<td>Calculus I</td>
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<td>MATH F252X</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>PHYS F211X</td>
<td>General Physics I</td>
<td>4</td>
</tr>
<tr>
<td>PHYS F212X</td>
<td>General Physics II</td>
<td>4</td>
</tr>
<tr>
<td>MATH F253X</td>
<td>Calculus III</td>
<td>4</td>
</tr>
<tr>
<td>PHYS F213X</td>
<td>Elementary Modern Physics</td>
<td>4</td>
</tr>
<tr>
<td>PHYS F220</td>
<td>Introduction to Computational Physics</td>
<td>4</td>
</tr>
<tr>
<td>PHYS F301</td>
<td>Introduction to Mathematical Physics</td>
<td>4</td>
</tr>
<tr>
<td>PHYS F341</td>
<td>Classical Physics I: Particle Mechanics</td>
<td>4</td>
</tr>
<tr>
<td>PHYS F342</td>
<td>Classical Physics II: Electricity and Magnetism</td>
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</tr>
<tr>
<td>PHYS F400</td>
<td>Capstone Project</td>
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</table>

Concentrations

Complete one from the following concentrations: 31-40

- Physics
- Applied Physics
- Atmospheric Physics
- Computational Physics
- Technical Management

1 Satisfy the capstone project requirement by passing PHYS F400, Capstone Project (0 credits).

The capstone project can be done either as individual undergraduate research with a faculty member (by taking PHYS F488 - 2 credits) or as an independent study with a faculty member within any F300- or F400-level physics course (by taking PHYS F497 - 2 credits), or as participation in the international University Physics Competition. Credits required to fulfill the capstone experience do not count toward credits required to complete the concentration.
## Concentrations

### Physics

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Program Requirements</td>
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<tr>
<td></td>
<td>Complete the following:</td>
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<tr>
<td></td>
<td>MATH electives at the F300 level or above¹</td>
<td>6</td>
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<tr>
<td>PHYS F343</td>
<td>Classical Physics III: Vibration and Waves</td>
<td>4</td>
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<tr>
<td>PHYS F351</td>
<td>Thermal Physics</td>
<td>2</td>
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<tr>
<td>PHYS F381</td>
<td>Physics Laboratory</td>
<td>3</td>
</tr>
<tr>
<td>PHYS F421</td>
<td>Quantum Mechanics</td>
<td>4</td>
</tr>
<tr>
<td>PHYS F451</td>
<td>Statistical Physics</td>
<td>2</td>
</tr>
<tr>
<td>PHYS F462</td>
<td>Geometrical and Physical Optics</td>
<td>4</td>
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<td></td>
<td>Complete 6 credits from the following:</td>
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<tr>
<td>PHYS F471A</td>
<td>Advanced Topics in Physics I: Condensed Matter Physics</td>
<td></td>
</tr>
<tr>
<td>PHYS F471B</td>
<td>Advanced Topics in Physics I: Condensed Matter Physics II</td>
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</tr>
<tr>
<td>PHYS F471C</td>
<td>Advanced Topics in Physics I: Space and Auroral Physics</td>
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</tr>
<tr>
<td>PHYS F471D</td>
<td>Advanced Topics in Physics I: Nonlinear Dynamics</td>
<td></td>
</tr>
<tr>
<td>PHYS F471E</td>
<td>Advanced Topics in Physics I: Biophysics</td>
<td></td>
</tr>
<tr>
<td>PHYS F471F</td>
<td>Advanced Topics in Physics I: Nuclear and Particle Physics</td>
<td></td>
</tr>
<tr>
<td>PHYS F471G</td>
<td>Advanced Topics in Physics I: General Relativity</td>
<td></td>
</tr>
<tr>
<td>PHYS F471H</td>
<td>Advanced Topics in Physics I: Astrophysics</td>
<td></td>
</tr>
<tr>
<td>PHYS F471I</td>
<td>Advanced Topics in Physics I: Topics in Modern Mathematical Physics</td>
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</tr>
<tr>
<td>PHYS F471J</td>
<td>Advanced Topics in Physics I: Order of Magnitude Physics</td>
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<tr>
<td>PHYS F472A</td>
<td>Advanced Topics in Physics II: Planetary Atmospheres</td>
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</tr>
<tr>
<td>PHYS F472B</td>
<td>Advanced Topics in Physics II: Fluid Dynamics</td>
<td></td>
</tr>
<tr>
<td>PHYS F472C</td>
<td>Advanced Topics in Physics II: Plasma Physics</td>
<td></td>
</tr>
<tr>
<td>PHYS F472D</td>
<td>Advanced Topics in Physics II: Hamiltonian Mechanics</td>
<td></td>
</tr>
<tr>
<td>PHYS F472E</td>
<td>Advanced Topics in Physics II: Physics of Glaciers</td>
<td></td>
</tr>
<tr>
<td>PHYS F472F</td>
<td>Advanced Topics in Physics II: Remote Sensing</td>
<td></td>
</tr>
<tr>
<td>PHYS F472G</td>
<td>Advanced Topics in Physics II: Solar Physics</td>
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</tr>
<tr>
<td>PHYS F472H</td>
<td>Advanced Topics in Physics II: Advanced Laboratory</td>
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<tr>
<td>PHYS F472I</td>
<td>Advanced Topics in Physics II: Spectroscopy</td>
<td></td>
</tr>
<tr>
<td>PHYS F472J</td>
<td>Advanced Topics in Physics II: Cosmology</td>
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</tr>
<tr>
<td>PHYS F472K</td>
<td>Advanced Topics in Physics II: Quantum Computation</td>
<td></td>
</tr>
</tbody>
</table>

¹ Recommended courses include MATH F314, MATH F410 and MATH F432.

### Applied Physics

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Program Requirements</td>
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<tr>
<td></td>
<td>Complete the following:</td>
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</tr>
<tr>
<td></td>
<td>MATH electives at the F300 level or above¹</td>
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</tr>
<tr>
<td></td>
<td>Physics credits at the F300 level or above</td>
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</tr>
<tr>
<td></td>
<td>Applied Physics</td>
<td>17</td>
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</table>

¹ Recommended courses include MATH F314, MATH F410 and MATH F432.

² The credits must be in a chosen subject area and approved before the beginning of the student’s final semester by the head of the Physics Department.

### Atmospheric Physics

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Program Requirements</td>
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</tr>
<tr>
<td></td>
<td>Complete the following:</td>
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</tr>
<tr>
<td></td>
<td>MATH electives at the F300 level or above¹</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Physics credits at the F300 level or above</td>
<td>9</td>
</tr>
<tr>
<td>ATM F401</td>
<td>Introduction to Atmospheric Sciences</td>
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<tr>
<td>ATM F413</td>
<td>Atmospheric Radiation</td>
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<tr>
<td>ATM F445</td>
<td>Atmospheric Dynamics</td>
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</tr>
<tr>
<td></td>
<td>Other relevant upper-division courses.²</td>
<td>8</td>
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</tbody>
</table>

¹ Recommended courses include MATH F314, MATH F410 and MATH F432.

² The credits must be in a chosen subject area and approved before the beginning of the student’s final semester by the head of the Physics Department.

### Computational Physics

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Program Requirements</td>
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</tr>
<tr>
<td></td>
<td>Complete the following:</td>
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</tr>
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<td></td>
<td>MATH electives at the F300 level or above¹</td>
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</tr>
<tr>
<td></td>
<td>Physics credits at the F300 level or above</td>
<td>9</td>
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<td>CS F201</td>
<td>Computer Science I</td>
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<tr>
<td>CS F202</td>
<td>Computer Science II</td>
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<tr>
<td>MATH F426</td>
<td>Numerical Analysis</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Other relevant upper-division courses.²</td>
<td>8</td>
</tr>
</tbody>
</table>

¹ Recommended courses include MATH F314, MATH F410 and MATH F432.

² The credits must be in a chosen subject area and approved before the beginning of the student’s final semester by the head of the Physics Department.
Students will apply for admission to the Alaska College of Education's postbaccalaureate teacher preparation program, a one-year intensive program, during their senior year.

### Minor, Physics

#### Program Requirements

Students must earn a C- grade or better in each course.

#### Minimum Requirements for Physics Minor: 20 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PHYS F211X</td>
<td>General Physics I</td>
<td>4</td>
</tr>
<tr>
<td>PHYS F212X</td>
<td>General Physics II</td>
<td>4</td>
</tr>
<tr>
<td>PHYS F213X</td>
<td>Elementary Modern Physics</td>
<td>4</td>
</tr>
<tr>
<td>PHYS electives at the F300-400 level</td>
<td></td>
<td>8</td>
</tr>
</tbody>
</table>

### Political Science

#### B.A. Degree

The Department of Political Science offers a major in political science and minors in political science and in law and society. The department also offers graduate-level political science courses in the Arctic and Northern studies M.A. program and the interdisciplinary studies Ph.D. program.

The political science discipline educates students on politics, policy and citizenship in a changing world. As the study of power, political science explains who gets what, when, where and how. It examines the struggles over claims to authority that shape our lives and our world. As the study of values, it examines why citizens obey or rebel, the nature of just societies, and the ways individuals reconcile personal liberty with political authority. As the science of political behavior, it analyzes the actions of interest groups, political parties and public officials. Politics is an omnipresent force, not only in governments but in families, social organizations, schools and decision-making bodies of all types — from student councils to international institutions. A solid understanding of local, state, national and international politics will benefit all students throughout their careers.

Courses are offered in the political science fields of American politics, public policy and law, comparative politics, international politics and political theory. The department also offers specialized classes in environmental policy and politics, Indigenous studies, and Arctic and Northern studies. In addition to course offerings and faculty expertise, the department presents real-world opportunities for students to apply their learning. Those include numerous internship and scholarship opportunities in Alaska and the rest of the United States. Students can participate in the Model United Nations and Model Arctic Council, join the Political Science Department honor society, Pi Sigma Alpha, aid faculty as research assistants or create their own research projects, and take part in numerous other department projects such as bringing speakers to campus or hosting roundtables on important issues. Graduate students may also serve as teaching or research assistants.

The political science B.A. has led students to graduate work in the social sciences; employment in the media and public relations; teaching at high school and university levels; and careers in business corporations and nonprofits at the state and national levels. Political science provides a
broad understanding of the formation, application and change of the law, as well as research techniques and standards of argumentation essential to legal practice. Political science is the premier major for students desiring to go to law school and also prepares students for work in various fields of government. Alaska offers job prospects for political science graduates as managers in state and local governments and as legislators and legislative staff members. Graduates are also qualified to work outside of Alaska in numerous public and private sector jobs.

Minimum Requirements for Political Science Bachelor's Degree: 120 credits

Learn more about the bachelor's degree in political science (https://uaf.edu/academics/programs/bachelors/political-science.php), including an overview of the program, career opportunities and more.

College of Liberal Arts
Department of Political Science (http://www.uaf.edu/polisci/)
907-474-7609

Programs
Degree
- B.A., Political Science (p. 276)

Minor
- Minor, Political Science (p. 277)
- Minor, Law and Society (p. 253)

B.A., Political Science

Program Requirements
Students must earn a C- grade or better in each course.

Minimum Requirements for Political Science B.A.: 120 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>General University Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (p. 154)</td>
<td></td>
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<thead>
<tr>
<th>Code</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>General Education Requirements</td>
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</tr>
<tr>
<td></td>
<td>Complete the general education requirements. (p. 157)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>As part of the general education requirements, complete at least one of the following Political Science courses:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PS F100X Political Economy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PS F201X Comparative Politics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PS F221X International Politics</td>
<td></td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td></td>
<td>B.A. Degree Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the B.A. degree requirements. (p. 164)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>As part of the B.A. degree requirements, complete:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PS F300X Ethics and Society</td>
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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Political Science Program Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PS F101X Introduction to American Government and Politics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PS F222 Political Science Research Methods</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Complete one of the following:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PS F475 Internship in Public Affairs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PS F499 Senior Thesis</td>
<td></td>
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</table>

The Alaska Universities Legislative Internship Program
Other approved internship earning at least 3 transferable upper-division credits

Political Science
Complete 24 credits from the following (at least one course from four of the following sub-disciplinary groups): 24

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>American Government and Politics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PS F301 American Presidency</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PS F302 Congress and Public Policy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PS F303 Politics and the Judicial Process</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PS F401 Political Behavior</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PS F447 U.S. Environmental Politics</td>
<td></td>
</tr>
</tbody>
</table>

Public Law
- PS F212 Introduction to Public Administration
- PS F403 Public Policy
- PS F435 Constitutional Law I: Federalism
- PS F436 Constitutional Law II: Civil Rights and Liberties
- PS F462 Alaska Government and Politics

Comparative Politics
- PS F201X Comparative Politics
- PS F202 Democracy and Global Society
- PS F450 Comparative Indigenous Rights and Policies
- PS F458 Comparative Environmental Politics
- PS F460 Government and Politics of Canada
- PS/HIST F467 Political Development in Latin America and the Caribbean
- PS F468 Government and Politics of Russia

International Politics
- PS F221X International Politics
- PS F304 International Security
- PS F322 International Law and Organization
- PS F323 International Political Economy
- PS F437 United States Foreign Policy
- PS F452 International Relations of the North
- PS F454 International Law and the Environment

Political Theory
- PS F314 Political Ideologies
- PS F315 American Political Thought
- PS/PHIL F411 Classical Political Theory
- PS/PHIL F412 Modern Political Theory
- PS F414 Contemporary Political Philosophy

Four additional Political Science courses 12

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Other Courses</td>
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<tr>
<td></td>
<td>PS F205 Leadership, Citizenship and Choice</td>
<td></td>
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<tr>
<td></td>
<td>PS/ANS F325 Alaska Native and Comparative Tribal Self-Government</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PS F340 Gender, Sex and Politics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PS/ANS F425 Federal Indian Law and Alaska Natives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PS F455 Political Economy of the Global Environment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PS F456 Science, Technology and Politics</td>
<td></td>
</tr>
</tbody>
</table>
Minor, Political Science

Program Requirements
Minimum Requirements for Political Science Minor: 15 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PS F101X</td>
<td>Introduction to American Government and Politics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Complete at least four political science courses at the F200, F300 or F400 level</td>
<td>12</td>
</tr>
</tbody>
</table>

Psychology

B.A., B.S. Degrees

The Department of Psychology offers B.A. and B.S. degrees in psychology. The department's focus is to provide breadth and depth in the science and profession of psychology with a commitment to honoring diversity and promoting human welfare. The curriculum develops cross-cultural knowledge, critical thinking, imagination, creativity, ethical principles and concern for social justice, as well as respect for and knowledge of diverse points of view that include feminist, multicultural, indigenous, and gay and lesbian perspectives.

In addition to active engagement in the classroom, students can participate in research and community service. Programs in psychology facilitate an understanding of the human experience as an interaction of biological, psychological, social and cultural processes.

Graduates of the undergraduate program in psychology have been successful in gaining entrance to graduate school in a variety of fields including psychology, medicine, business and law. Graduation with an undergraduate psychology degree has allowed students to become employed in a variety of entry-level human services and business positions.

Minimum Requirements for Psychology Bachelor's Degrees: 120 credits

Learn more about the bachelor's degree in psychology (https://uaf.edu/academics/programs/bachelors/psychology.php), including an overview of the program, career opportunities and more.

Learn more about the online bachelor's degree in psychology (https://uaf.edu/academics/programs/bachelors/psychology-online.php), including an overview of the program, career opportunities and more.

College of Liberal Arts
Department of Psychology (http://www.uaf.edu/psych/) 907-474-7007

Programs
Degree
- B.A., Psychology (p. 277)
- B.S., Psychology (p. 278)
Complete 9 additional psychology credits selected from the catalog or from electives approved by psychology faculty

1 PSY F485 fulfills the baccalaureate capstone requirement.

Note: No course may count in more than one area (e.g., PSY F475 may NOT count toward both foundation and applied courses).

Note: Students may not count more than 6 credits of any combination of PSY F497 and PSY F498 toward the major.

Note: Students may apply an unlimited number of PSY F392/PSY F492 and PSY F393/PSY F493 credits toward the degree provided the topics are different for each course.

Note: Students should work closely with an advisor to ensure completion of 39 upper-division credits for graduation.

B.S., Psychology

Program Requirements

Students must earn a C-grade or better in each course.

Minimum Requirements for Psychology
B.S. Degree: 120 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td></td>
<td><strong>General University Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (p. 154)</td>
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<tr>
<td></td>
<td><strong>General Education Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general education requirements. (p. 157)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>B.S. Degree Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the B.S. degree requirements. (p. 170)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Psychology Program Requirements</strong></td>
<td></td>
</tr>
<tr>
<td>PSY F101X</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSY F250</td>
<td>Introductory Statistics for Social Sciences</td>
<td>3</td>
</tr>
<tr>
<td>PSY F275</td>
<td>Introduction to Social Science Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>PSY F301</td>
<td>Culture and Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSY F475</td>
<td>Research Design and Analysis in Psychology ¹</td>
<td>3</td>
</tr>
<tr>
<td>or PSY F485</td>
<td>Senior Seminar</td>
<td></td>
</tr>
<tr>
<td>or PSY F499</td>
<td>Thesis</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete 6 credits from the following:</td>
<td>6</td>
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<tr>
<td>PSY F240</td>
<td>Psychology of Development</td>
<td></td>
</tr>
<tr>
<td>PSY F304</td>
<td>Personality</td>
<td></td>
</tr>
<tr>
<td>PSY F330</td>
<td>Social Psychology</td>
<td></td>
</tr>
<tr>
<td>PSY/SOC F333/WGS F332</td>
<td>Human Sexualities Across Cultures</td>
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</tr>
<tr>
<td>PSY F335</td>
<td>Brain and Behavior</td>
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<tr>
<td>PSY F345</td>
<td>Abnormal Psychology</td>
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</tr>
<tr>
<td>PSY/WGS F360</td>
<td>Psychology of Women Across Cultures</td>
<td></td>
</tr>
<tr>
<td>PSY F370</td>
<td>Drugs and Behavior</td>
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</tr>
<tr>
<td>PSY F440</td>
<td>Learning and Cognition</td>
<td></td>
</tr>
<tr>
<td>PSY F470</td>
<td>Sensation and Perception</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete 9 additional psychology credits selected from the catalog or from electives approved by psychology faculty</td>
<td>9</td>
</tr>
</tbody>
</table>

¹ PSY F485 fulfills the baccalaureate capstone requirement.

Note: No course may count in more than one area (e.g., PSY F475 may NOT count toward both foundation and applied courses).

Note: Students may apply an unlimited number of PSY F392/PSY F492 and PSY F393/PSY F493 credits toward the degree provided the topics are different for each course.

Note: Students should work closely with an advisor to ensure completion of 39 upper-division credits for graduation.

Minor, Psychology

Program Requirements

Minimum Requirements for Psychology Minor: 15 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td></td>
<td>Complete the following:</td>
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<tr>
<td>PSY F101X</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSY electives</td>
<td></td>
<td>12</td>
</tr>
</tbody>
</table>

Rural Development

B.A. Degree

Rural development is an interdisciplinary field that teaches the history, theory and skills needed for human, social and economic development in rural communities. Rural development degree programs are designed to educate a new generation of community leaders for rural Alaska. The B.A. degree can be earned either on the Fairbanks campus or through distance delivery. Special application requirements and deadlines apply for distance B.A. degree programs. Students applying for acceptance into the Rural Development program need to complete a department-specific written questionnaire in addition to general university admission requirements. Findings from this questionnaire will be used to support the department advising process and assist students in connecting with faculty and mentors. The questionnaire is found on the DANSRD website under “How to Apply.”
Students in the rural development program gain a broad understanding of Alaska’s relationship to the global economy and an appreciation for sustainable development strategies. Students also learn specific tools essential for community leadership, including business plan and grant proposal writing, community visioning and planning processes, community-based research techniques, computer business applications, project management, and evaluation techniques. Graduates typically take positions with tribal and municipal governments, fisheries, tourism and other private businesses, Native corporations, regional health corporations or nonprofits, and state/federal agencies.

Within the B.A. degree program, students will select and develop a concentration in one of five areas:

• The human and social development concentration is for students interested in social services, social justice, community wellness and cultural development. Graduates may find employment with tribal governments, health consortia, clinics and schools.

• The tribal and municipal governance concentration is for students interested in tribal governance and rural municipal and borough government (home rule). Students develop an understanding of the history and constitutional basis for tribal governance, various home rule governance structures, basics of federal Indian law, principles and practices of self-determination, and the mandates of the Alaska Native Claims Settlement Act. They develop skills in planning, budgeting and human resources management. Students can pursue a special interest, such as management of health programs, tribal governance programs or Alaska Native corporations, and tailor the concentration to these specifications through choice of related courses and electives. Graduates may find employment with tribal and municipal governments and organizations, ANCSA corporations, and state and federal agencies.

• The integrated resource management concentration is designed for students interested in land use, subsistence, cultural resources and co-management. Students learn about traditional ecological knowledge, principles of natural resources management and policy, adaptive management, conservation and ecotourism, and skills for effective public/private/tribal collaboration in resource management. Management strategies for addressing climate change are explored. Graduates may find employment with ANCSA corporations, regional and tribal entities, or state and federal agencies.

• The entrepreneurship and economic development concentration is for students interested in creating sustainable economies in rural and indigenous communities, with a focus on small business development. Students learn to develop business and marketing plans, economic development planning, and basic principles of financial and human resources management for rural enterprises. Graduates find employment in ANCSA corporations, regional development organizations, economic development agencies and as local entrepreneurs.

• The multidisciplinary concentration is intended for students who wish to combine two or more rural development concentrations or combine a rural development concentration with another discipline. Students will work closely with their advisor to select the appropriate courses for the concentration.

Minimum Requirements for Rural Development Bachelor’s Degree: 120 credits

Learn more about the bachelor’s degree in rural development (https://uaf.edu/academics/programs/bachelors/rural-development.php), including an overview of the program, career opportunities and more.

College of Rural and Community Development
Department of Alaska Native Studies and Rural Development (http://www.uaf.edu/dansrd/)
907-474-6528 Toll-free 1-866-478-2721

Programs
Degree
• B.A., Rural Development (p. 279)

Minor
• Minor, Rural Development (p. 280)

B.A., Rural Development
Program Requirements
Students must earn a C- grade or better in each course.

Minimum Requirements for Rural Development B.A.: 120 credits

CONCENTRATIONS: HUMAN AND SOCIAL DEVELOPMENT (P. 280); TRIBAL AND MUNICIPAL GOVERNANCE (P. 280); INTEGRATED RESOURCE MANAGEMENT (P. 280); ENTREPRENEURSHIP AND ECONOMIC DEVELOPMENT (P. 280); MULTIDISCIPLINARY (P. 280)

<table>
<thead>
<tr>
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<td></td>
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</tr>
<tr>
<td></td>
<td>General Education Requirements</td>
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<tr>
<td></td>
<td>Complete the general education requirements. (p. 157)</td>
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<tr>
<td></td>
<td>B.A. Degree Requirements ¹</td>
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<tr>
<td></td>
<td>Complete the B.A. degree requirements. (p. 164)</td>
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<tr>
<td></td>
<td>Including 39 upper-division credits</td>
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<tr>
<td></td>
<td>Rural Development Program Requirements</td>
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</tr>
<tr>
<td>RD F225</td>
<td>Communicating for Rural Development</td>
<td>3</td>
</tr>
<tr>
<td>RD F300</td>
<td>Rural Development in a Global Perspective</td>
<td>3</td>
</tr>
<tr>
<td>RD F325</td>
<td>Rural Development Principles and Practices</td>
<td>3</td>
</tr>
<tr>
<td>RD F340</td>
<td>Community Research Toolbox</td>
<td>3</td>
</tr>
<tr>
<td>RD F351</td>
<td>Strategic Planning and Decision Making</td>
<td>3</td>
</tr>
<tr>
<td>RD F352</td>
<td>Rural Business Planning and Proposal Development</td>
<td>3</td>
</tr>
<tr>
<td>RD F450</td>
<td>Managing Rural Projects and Programs</td>
<td>3</td>
</tr>
<tr>
<td>RD F474</td>
<td>Applied Community Research</td>
<td>3</td>
</tr>
<tr>
<td>RD F475</td>
<td>Rural Development Senior Project ²</td>
<td>3</td>
</tr>
<tr>
<td>RD elective</td>
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<td>RD, ANS, TM or ED electives</td>
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<tr>
<td>Concentrations ³</td>
<td></td>
<td>15</td>
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</table>

Complete one from the following concentrations:
### Minor, Rural Development

#### Program Requirements

**Minimum Requirements for Rural Development Minor: 15 credits**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Any three-credit RD course at the 300 level or above</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>RD electives at the F200 level or above</td>
<td>12</td>
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</tbody>
</table>

**Human and Social Development**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANS/RD F315</td>
<td>Tribal People and Development</td>
<td>3</td>
</tr>
<tr>
<td>RD F465</td>
<td>Community Healing and Wellness</td>
<td>3</td>
</tr>
<tr>
<td>RD F468</td>
<td>Human Development and Social Justice</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Complete an additional 6 credits from rural development, Alaska Native studies, ethnobotany, human services, psychology, rural development, rural human services, social work and/or tribal management. ¹</td>
<td>6</td>
</tr>
</tbody>
</table>

- ¹ Recommended subject areas. Course substitutions relevant to the concentration area may be made with approval of the rural development faculty advisor.

**Tribal and Municipal Governance**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANS F325</td>
<td>Alaska Native and Comparative Tribal Self-Government</td>
<td>3</td>
</tr>
<tr>
<td>RD F427</td>
<td>Tribal Contracting and Compacting</td>
<td>3</td>
</tr>
<tr>
<td>ANS/RD F435</td>
<td>Participatory Policy-making in Tribal, State and Federal Government</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Complete an additional 6 credits from rural development, Alaska Native studies, applied business, business administration and or tribal management. ¹</td>
<td>6</td>
</tr>
</tbody>
</table>

- ¹ Recommended subject areas. Course substitutions relevant to the concentration area may be made with approval of the rural development faculty advisor.

**Integrated Resource Management**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RD F255</td>
<td>Rural Alaska Land Issues</td>
<td>3</td>
</tr>
<tr>
<td>RD F265</td>
<td>Perspectives on Subsistence in Alaska</td>
<td>3</td>
</tr>
<tr>
<td>RD F425</td>
<td>Cultural Resource Issues</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Complete an additional 6 credits from rural development, Alaska Native studies, environmental studies, ethnobotany, fisheries, high latitude range management, natural resource management, rural development and/or tribal management. ¹</td>
<td>6</td>
</tr>
</tbody>
</table>

- ¹ Recommended subject areas. Course substitutions relevant to the concentration area may be made with approval of the rural development faculty advisor.

**Entrepreneurship and Economic Development**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RD F430</td>
<td>Indigenous Economic Development and Entrepreneurship</td>
<td>3</td>
</tr>
<tr>
<td>RD F470</td>
<td>The Alaska Native Claims Settlement Act: Pre-1971 to Present</td>
<td>3</td>
</tr>
<tr>
<td>RD F471</td>
<td>Corporate Social Responsibility and Accountability in Rural and Indigenous Contexts</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Complete an additional 6 credits from rural development, Alaska Native studies, applied business, business administration, construction trades technology, economics and/or tribal management. ¹</td>
<td>6</td>
</tr>
</tbody>
</table>

- ¹ Recommended subject areas. Course substitutions relevant to the concentration area may be made with approval of the rural development faculty advisor.

**Multidisciplinary**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td></td>
<td>Complete 15 credits from two or more existing concentrations. Courses must include at least 9 credits from the required course lists of the existing concentrations as approved by department advisor.</td>
<td>15</td>
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</tbody>
</table>

**Social Work**

**B.A. Degree**

We educate generalist social work practitioners to promote the health and well-being of individuals, families and communities, emphasizing the diversity and uniqueness of rural Alaska.

We create a community of critical thinkers dedicated to becoming competent, culturally sensitive professionals engaged in lifelong learning. We prepare students for generalist social work practice with individuals, families, groups, organizations and communities; to integrate the values and ethics of the social work profession into generalist practice; to apply critical thinking to inform and communicate professional judgments; to engage diversity in generalist practice to advance human rights and advocate for social and economic justice; and to understand bio-psycho-social, spiritual, and cultural functioning and apply it to all client systems.
Graduates in social work qualify for beginning practice positions in child welfare, mental health, services for the aged, family agencies, youth programs, health services, Native corporations and other social agencies. Social work applies knowledge in the behavioral sciences to deal with the emotional and social problems of individuals, families and communities.

The curriculum includes a liberal arts base, foundation requirements in the behavioral sciences, and sequences in social policy and services, practice methods and field instruction. A major emphasis is the preparation of the student for beginning social work practice with rural and Alaska Native populations.

Students learn to engage people on a personal level and are placed in a social service agency as part of their course work during the senior year. Students must apply to participate in a senior field placement and are required to complete a minimum of 400 hours over the course of two semesters in a social service agency practicing the skills learned in the program.

The UAF baccalaureate social work program is accredited by the Council on Social Work Education. This degree program is delivered collaboratively within the UA system.

Minimum Requirements for Social Work Bachelor's Degree: 120 credits

Learn more about the bachelor's degree in social work (https://uaf.edu/academics/programs/bachelors/social-work.php), including an overview of the program, career opportunities and more.

College of Liberal Arts
Department of Social Work (http://www.uaf.edu/socwork/)
907-474-7240

Programs
Degree
• B.A., Social Work (p. 281)

Minor
• Minor, Social Work (p. 282)

B.A., Social Work
Program Requirements
Students must earn a C- grade or better in each course.

Minimum Requirements for Social Work Bachelor's Degree: 120 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.A. Degree Requirements</td>
<td>Complete the general university requirements. (p. 154)</td>
<td></td>
</tr>
<tr>
<td>General Education Requirements</td>
<td>Complete the general education requirements. (p. 157)</td>
<td></td>
</tr>
<tr>
<td>As part of the general education requirements, complete:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOC F101X</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>or ANTH F100X</td>
<td>Individual, Society and Culture</td>
<td></td>
</tr>
<tr>
<td>Complete one of the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIOL F100X</td>
<td>Human Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL F103X</td>
<td>Biology and Society</td>
<td>3</td>
</tr>
<tr>
<td>B.I.A. Degree Requirements</td>
<td>Complete the B.A. degree requirements. (p. 164)</td>
<td></td>
</tr>
<tr>
<td>As part of the B.A. degree requirements, complete:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANS F242X/ ANTH F242</td>
<td>Indigenous Cultures of Alaska</td>
<td>3</td>
</tr>
<tr>
<td>PSY F101X</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>Social Work Program Requirements</td>
<td>Complete two of the following:</td>
<td>6</td>
</tr>
<tr>
<td>SWK F103X</td>
<td>Introduction to Social Work</td>
<td>3</td>
</tr>
<tr>
<td>SWK F220</td>
<td>Ethics, Values and Social Work Practice</td>
<td>3</td>
</tr>
<tr>
<td>SWK F305</td>
<td>Social Welfare History</td>
<td>3</td>
</tr>
<tr>
<td>SWK F306</td>
<td>Social Welfare: Policies and Issues</td>
<td>3</td>
</tr>
<tr>
<td>SWK F320</td>
<td>Rural Social Work</td>
<td>3</td>
</tr>
<tr>
<td>SWK F341</td>
<td>Human Behavior in the Social Environment I</td>
<td>3</td>
</tr>
<tr>
<td>SWK F342</td>
<td>Human Behavior in the Social Environment II</td>
<td>3</td>
</tr>
<tr>
<td>SWK F375</td>
<td>Research Methods in Social Work</td>
<td>3</td>
</tr>
<tr>
<td>SWK F460</td>
<td>Social Work Practice I</td>
<td>3</td>
</tr>
<tr>
<td>SWK F461</td>
<td>Practicum in Social Work I 1,2</td>
<td>3-6</td>
</tr>
<tr>
<td>SWK F463</td>
<td>Social Work Practice II</td>
<td>3</td>
</tr>
<tr>
<td>SWK F464</td>
<td>Practicum in Social Work II 1,2</td>
<td>3-6</td>
</tr>
<tr>
<td>SWK F466</td>
<td>Practicum in Social Work III</td>
<td>3-6</td>
</tr>
<tr>
<td>Special Problems Areas</td>
<td>Complete the following:</td>
<td></td>
</tr>
<tr>
<td>HUMS F205</td>
<td>Basic Principles of Group Counseling</td>
<td></td>
</tr>
<tr>
<td>HUMS F305</td>
<td>Substance Abuse Counseling</td>
<td></td>
</tr>
<tr>
<td>SWK F310</td>
<td>Fetal Alcohol Spectrum Disorders</td>
<td></td>
</tr>
<tr>
<td>SWK F330</td>
<td>Seminar in International Social Work</td>
<td></td>
</tr>
<tr>
<td>SWK F360</td>
<td>Child Abuse and Neglect</td>
<td></td>
</tr>
<tr>
<td>SWK F370</td>
<td>Services and Support for an Aging Society</td>
<td></td>
</tr>
<tr>
<td>SWK F390</td>
<td>Trauma and Wellness: Historical and Contemporary Perspectives</td>
<td></td>
</tr>
<tr>
<td>SWK F440</td>
<td>Social Work Practice with Military Families</td>
<td></td>
</tr>
<tr>
<td>SWK F470</td>
<td>Substance Abuse Theories and Treatment</td>
<td></td>
</tr>
<tr>
<td>SWK F484</td>
<td>Seminar in Social Work Practice Areas</td>
<td></td>
</tr>
</tbody>
</table>

1 Students must complete a total of 12 credits of practicum, and students must take SWK F461 and SWK F464 for at least 6 of these credits. SWK F466 is an option for students who have completed SWK F461 and SWK F464 for less than 12 credits.

2 Fulfills the baccalaureate capstone requirement.
Minor, Social Work

Program Requirements
Students must earn a C- grade or better in each course.

Minimum Requirements for Social Work Minor: 15 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SWK F103X</td>
<td>Introduction to Social Work</td>
<td>3</td>
</tr>
<tr>
<td>SWK F220</td>
<td>Ethics, Values and Social Work Practice</td>
<td>3</td>
</tr>
<tr>
<td>Complete three SWK designated courses, excluding SWK F460, SWK F461, SWK F463 and SWK F464</td>
<td>9</td>
<td></td>
</tr>
</tbody>
</table>

Sociology

Minor Only

ADMISSION TO THIS PROGRAM IS CURRENTLY SUSPENDED.

Sociology is a scientific discipline that teaches us about ourselves and the groups of which we are a part. The sociological perspective equips the graduate with critical thinking and analytical problem-solving skills necessary for a variety of careers. A person with a sociology undergraduate degree can apply sociology in any work environment, including human services, government, business, community activism and public health agencies. The sociology department also prepares individuals to pursue graduate studies in sociology or professional programs for careers in law, medicine, business, education and social policy.

Minimum Requirements for Sociology Minor: 18 credits

College of Liberal Arts
Department of Sociology (http://www.uaf.edu/sociology/)
907-474-5494

Programs

Minor

- Minor, Sociology (p. 282) — Admission to this program is currently suspended

Minor, Sociology

Program Requirements

Admission to this program is currently suspended.

Minimum Requirements for Sociology Minor: 18 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC F101X</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>or SOC F201X</td>
<td>Social Problems and Solutions</td>
<td></td>
</tr>
<tr>
<td>15 credits of SOC electives, 6 of which must be upper-division</td>
<td>15</td>
<td></td>
</tr>
</tbody>
</table>

Sport and Recreation Business

B.S.R.B. Degree

The Bachelor of Sport and Recreation Business (BSRB) degree is designed for undergraduate students interested in pursuing careers in sport, recreation and/or tourism. The degree emphasizes critical business areas including accounting, marketing, management, economics and finance and applies them to the sport, recreation and tourism industries. The combination of business, leadership and hands-on education is what sets our students up to make an immediate impact within an organization.

Students can choose between concentrations in recreation management or sport management. In both concentrations, students will design a pathway through electives to tailor their degree to best fit their needs. For example, a student wanting to work in the eSports industry would concentrate in sport management and take a suggested pathway of electives to prepare them for the industry. Similarly, a student wanting to be a hunting guide or open their own outdoor business would concentrate in recreation and take a suggested pathway of electives. Students will be challenged to apply classroom content to real-world situations, gaining valuable resume-building experience in the process. Students benefit from in-person and online classes designed to complement a working student's schedule.

Minimum Requirements for Sport and Recreation Business Bachelor's Degree: 120 credits

Learn more about the bachelor's degree in sport and recreation business (https://uaf.edu/academics/programs/bachelors/sport-recreation-business-online.php), including an overview of the program, career opportunities and more.

Learn more about the online bachelor's degree in sport and recreation business (https://uaf.edu/academics/programs/bachelors/sport-recreation-business-online.php), including an overview of the program, career opportunities and more.

School of Management (http://www.uaf.edu/som/)
907-474-7461

Programs

Degree

- B.S.R.B., Sport and Recreation Business (p. 282)

B.S.R.B., Sport and Recreation Business

Program Requirements

Students must earn a C- grade or better in each course.

Minimum Requirements for Sport and Recreation Business B.S.R.B.: 120 credits

CONCENTRATIONS: SPORT MANAGEMENT (P. 283) AND RECREATION MANAGEMENT (P. 283)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General University Requirements</td>
<td>Complete the general university requirements. (p. 290)</td>
<td></td>
</tr>
</tbody>
</table>
General Education Requirements
Complete the general education requirements. (p. 157)
As part of the general education requirements, complete:

- **MATH F122X** Essential Precalculus with Applications
- **SPRT F281X** Introduction to Sport Management

**B.S.R.B. Degree Requirements**
Complete the B.S.R.B. degree requirements. (p. 173)

### Sport and Recreation Business Program Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT F261X</td>
<td>Principles of Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BA F307</td>
<td>Introductory Human Resources Management</td>
<td>3</td>
</tr>
<tr>
<td>BA F343</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>SPRT F280</td>
<td>Sport Leadership</td>
<td>3</td>
</tr>
<tr>
<td>SPRT F482</td>
<td>Sport Marketing</td>
<td>3</td>
</tr>
<tr>
<td>SPRT F483</td>
<td>Sport Sales</td>
<td>3</td>
</tr>
<tr>
<td>SPRT F484</td>
<td>Legal Aspects of Sport and Recreation Management</td>
<td>3</td>
</tr>
</tbody>
</table>

Additional 12 credits of ACCT, BA, ECON, HSEM, SPRT, or additional concentration courses as approved by advisor: 12

### Concentrations

Choose one or more from the following concentrations: 9
- Sport Management
- Recreation Management

### Electives

Electives may be taken to meet 120 credits

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**Concentrations**

### SPORT MANAGEMENT

**Code**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select 9 credits from the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BA F436</td>
<td>Consumer Behavior</td>
<td>3</td>
</tr>
<tr>
<td>BA F443</td>
<td>Social Media Marketing</td>
<td>3</td>
</tr>
<tr>
<td>HSEM F301</td>
<td>Principles of Emergency Management and Homeland Security</td>
<td>3</td>
</tr>
<tr>
<td>PSY F337</td>
<td>Sport Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SPRT F481</td>
<td>Entertainment and Sport Event Management</td>
<td>3</td>
</tr>
<tr>
<td>SPRT/BA F488</td>
<td>Sport Analytics</td>
<td>3</td>
</tr>
</tbody>
</table>

### RECREATION MANAGEMENT

**Code**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select 9 credits from the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BA F317</td>
<td>Employment Law</td>
<td>3</td>
</tr>
<tr>
<td>BA F360</td>
<td>Operations Management</td>
<td>3</td>
</tr>
<tr>
<td>BA F490</td>
<td>Services Marketing</td>
<td>3</td>
</tr>
<tr>
<td>NRM F365</td>
<td>Principles of Outdoor Recreation Management</td>
<td>3</td>
</tr>
<tr>
<td>RD F268</td>
<td>Rural Tourism: Planning and Principles</td>
<td>3</td>
</tr>
<tr>
<td>SPRT F485</td>
<td>Sport and Recreation Facilities</td>
<td>3</td>
</tr>
<tr>
<td>Recreation (RECR) electives</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

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**Statistics Minor Only**

Statistics is a collection of methods and theories for making decisions or estimating unknown quantities from incomplete information. Statistical techniques are useful, for example, in estimating plant, animal and mineral abundances; forecasting social, political and economic trends; planning field plot experiments in agriculture; performing clinical trials in medical research; and maintaining quality control in industry. Employment opportunities are excellent for statisticians in many of these areas of application.

The Department of Mathematics and Statistics also offers a concentration in statistics (p. 256).

College of Natural Science and Mathematics
Department of Mathematics and Statistics (http://www.uaf.edu/dms/)
907-474-7332

### Programs Minor

- Minor, Statistics (p. 283)

### Minor, Statistics Minimum Requirements for Statistics Minor: 16 credits

**Code**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH F371</td>
<td>Probability ¹</td>
<td>3</td>
</tr>
<tr>
<td>MATH F408</td>
<td>Mathematical Statistics</td>
<td>3</td>
</tr>
<tr>
<td>STAT F200X</td>
<td>Elementary Statistics</td>
<td>3</td>
</tr>
<tr>
<td>or STAT F300</td>
<td>Statistics</td>
<td>3</td>
</tr>
<tr>
<td>STAT F401</td>
<td>Regression and Analysis of Variance</td>
<td>4</td>
</tr>
<tr>
<td>MATH, STAT or STAT related course work ²</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

¹ MATH F371 requires MATH F251X, MATH F252X and MATH F253X as prerequisites.
² e.g., BA F360, GEOS F430, ANTH F424, MATH F460, etc.

**Note:** Courses completed to satisfy this minor can be used to simultaneously satisfy other major or general distribution requirements.

**Note:** Fisheries majors selecting the research option for their major need only to complete MATH F371 and MATH F408 in addition to their fisheries requirements in order to obtain a minor in statistics.

### Teaching English to Speakers of Other Languages Minor Only

The minor in teaching English to speakers of other languages will provide students with a theoretical and practical foundation for the teaching of English as a second language in the United States or as a foreign language in other countries. The curriculum will benefit students in

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¹ No more than 3 credits of Recreation (RECR) courses may count toward the concentration.
foreign languages, linguistics, English, education and other fields of study who are interested in short- or long-term employment in the TESOL field.

College of Liberal Arts
Department of Linguistics (http://www.uaf.edu/linguist/)
907-474-6585

Programs
Minor

• Minor, Teaching English to Speakers of Other Languages (p. 284)

Minor, Teaching English to Speakers of Other Languages

Program Requirements
Students must earn a C- grade or better in each course except LING F200, which is graded on a pass/fail basis.

Minimum Requirements for Teaching English to Speakers of Other Languages Minor: 16 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LING F100 or LING F101X</td>
<td>Language, Education, Linguistics 1</td>
<td>3</td>
</tr>
<tr>
<td>LING F200</td>
<td>The Field of Teaching English to Speakers of Other Languages</td>
<td>1</td>
</tr>
<tr>
<td>LING F302</td>
<td>Introduction to Second Language Acquisition</td>
<td>3</td>
</tr>
<tr>
<td>LING F315</td>
<td>English Language for Second Language Teaching</td>
<td>3</td>
</tr>
<tr>
<td>LING F410</td>
<td>Theory and Methods of Second Language Teaching</td>
<td>3</td>
</tr>
<tr>
<td>LING F451</td>
<td>English Second Language Teaching Practicum</td>
<td>3</td>
</tr>
<tr>
<td>or FL F451</td>
<td>Foreign Language Teaching Practicum</td>
<td></td>
</tr>
</tbody>
</table>

1 For LING F100, grade of 'B' or higher is required.

Note: F400-level courses require junior standing or instructor permission.

Wildlife Biology and Conservation

B.S. Degree

The undergraduate wildlife program provides basic education and training. This degree is designed for students whose objective is to accomplish the research needed to provide additional information on wild animal populations, their habitat and habitat-animal relationships. This degree is also for students whose primary interests involve interpreting, applying or disseminating research findings, rather than their acquisition. A wildlife B.S. degree is appropriate for students contemplating careers in wildlife agency administration, in developing and implementing wildlife management plans and in public information and education. The curriculum provides a solid foundation for graduate study and meets requirement for certification by The Wildlife Society.

The geographic location of the university is particularly advantageous for the study of wildlife biology. Spruce forest, aspen-birch forest, alpine tundra, bogs and several types of aquatic habitats are within easy reach. Studies can be made in many other habitats ranging from the dense forests of southeastern Alaska to Arctic tundra.

Adequate study collections of plants and animals are available, and a 2,000-acre study area is near the campus. Wildlife biology students have ample opportunity for close association with the personnel of the Alaska Cooperative Fish and Wildlife Research Unit, Institute of Arctic Biology and several local offices of the federal and state conservation agencies. These agencies often provide support for graduate student projects, and program faculty usually hire a number of students for summer fieldwork. Thus, an unusually good opportunity is available for students to gain experience and to make job connections.

Certificate

• Tribal Management (p. 149)

Minor, Tribal Management

Students must earn C- grade or better in each course.

Minimum Requirements for Tribal Management Minor: 15 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TM F101</td>
<td>Introduction to Tribal Government in Alaska</td>
<td>3</td>
</tr>
<tr>
<td>TM F105</td>
<td>Introduction to Managing Tribal Governments</td>
<td>3</td>
</tr>
<tr>
<td>TM F201</td>
<td>Tribal Government in Alaska II</td>
<td>3</td>
</tr>
<tr>
<td>TM F205</td>
<td>Managing Tribal Governments II</td>
<td>3</td>
</tr>
<tr>
<td>Tribal management electives</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

Tribal Management

Minor

The minor in tribal management provides students with the skills to work within tribal and local governments and other organizations in rural Alaska. The curriculum gives students a foundation to apply the knowledge gained in their majors to rural and tribal management contexts.

Minimum Requirements for Tribal Management Minor: 15 credits

College of Rural and Community Development
Tribal Management Program (http://tribal.uaf.edu/)
907-474-7143
Minimum Requirements for Wildlife Biology and Conservation Bachelor’s Degree: 120 credits

Learn more about the bachelor’s degree in wildlife biology and conservation (https://uaf.edu/academics/programs/bachelors/wildlife-biology-conservation.php), including an overview of the program, career opportunities and more.

College of Natural Science and Mathematics
Department of Biology and Wildlife (http://www.bw.uaf.edu)
907-474-7671

Programs
Degree
• B.S., Wildlife Biology and Conservation (p. 285)

Minor
• Minor, Wildlife Biology and Conservation (p. 286)

B.S., Wildlife Biology and Conservation

Program Requirements
Students must earn a C- grade or better in each course.

Minimum Requirements for Wildlife Biology and Conservation B.S.: 120 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL F371</td>
<td>Principles of Ecology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL F471</td>
<td>Population Ecology</td>
<td>3</td>
</tr>
<tr>
<td>ENGL F314</td>
<td>Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>PHYS F123X</td>
<td>College Physics I</td>
<td>4</td>
</tr>
<tr>
<td>or GEOF F101X</td>
<td>The Dynamic Earth</td>
<td></td>
</tr>
<tr>
<td>or NRM F380</td>
<td>Soils and the Environment</td>
<td></td>
</tr>
<tr>
<td>STAT F401</td>
<td>Regression and Analysis of Variance</td>
<td>4</td>
</tr>
<tr>
<td>WLF F101</td>
<td>Survey of Wildlife Science</td>
<td>2</td>
</tr>
<tr>
<td>WLF F301</td>
<td>Design of Wildlife Studies</td>
<td>3</td>
</tr>
<tr>
<td>WLF F322</td>
<td>Principles and Techniques of Wildlife Management</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete one of the following: 3

- WLF F433 Conservation Genetics
- WLF F469 Landscape Ecology and Wildlife Habitat

Complete three from the following: 9

- BIOL F425 Mammalogy
- BIOL F426 Ornithology
- WLF F421 Ecology and Management of Large Mammals
- WLF F425 Ecology and Management of Birds

Complete two from the following: 6

- ECON F235X Introduction to Natural Resource Economics
- HIST F411 Environmental History
- NRM F204 Public Lands Law and Policy
- NRM F403 Environmental Decision-Making
- NRM F407 Environmental Law
- PS F447 U.S. Environmental Politics

Complete at least two additional courses at the F300 level or higher (3 or 4 credits) in biology, wildlife biology, fisheries or natural resources management

Capstone
Satisfactory completion of a capstone research project, which can be done by completing the course project for WLF F301 with either junior or senior standing.

1 Fulfills the baccalaureate capstone requirement (junior or senior standing required).

Note: B.S. degree candidates are strongly urged to obtain work experience in wildlife-related positions with public resource agencies or private firms. Faculty members can help students contact potential employers.

Requirements for biology teachers (grades 7-12)

Note: We strongly recommend that prospective secondary science teachers seek advising from the Alaska College of Education early in their undergraduate degree program so they can be appropriately advised of the State of Alaska requirements for teacher licensure. Students will apply for admission to the Alaska College of Education’s postbaccalaureate teacher preparation program, a one-year intensive program, during their senior year. The above requirements apply to all
candidates who apply to the Alaska College of Education for licensure in biology.

**Code** | **Title** | **Credits**
---|---|---
Complete all the requirements of the wildlife biology B.S. degree.

All prospective biology teachers must complete the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL F342</td>
<td>Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL F481</td>
<td>Principles of Evolution</td>
<td>4</td>
</tr>
<tr>
<td>CHEM F321</td>
<td>Organic Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM F325</td>
<td>and Organic Chemistry II</td>
<td>4</td>
</tr>
</tbody>
</table>

All prospective science teachers must complete the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL F481</td>
<td>Philosophy of Science</td>
<td>3</td>
</tr>
</tbody>
</table>

**Minor, Wildlife Biology and Conservation**

**Minor**

The minor in wildlife biology and conservation offers a minimum set of courses to provide students with an understanding of the principles upon which management of wildlife populations is based and to familiarize students with techniques used in wildlife management and research.

College of Natural Science and Mathematics
Department of Biology and Wildlife (http://www.bw.uaf.edu/)
907-474-7671

**Program Requirements**

Students must earn a C- grade or better in each course.

**Minimum Requirements for Wildlife Biology and Conservation Minor: 15 credits**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL F471</td>
<td>Population Ecology</td>
<td>3</td>
</tr>
<tr>
<td>WLF F301</td>
<td>Design of Wildlife Studies</td>
<td>3</td>
</tr>
<tr>
<td>WLF F322</td>
<td>Principles and Techniques of Wildlife Management</td>
<td>3</td>
</tr>
</tbody>
</table>

Approved BIOL and WLF electives ¹ | 6

¹ Only biology or wildlife electives that are not required for the student’s major. Electives must be 300- or 400 level courses and must be approved by the chair of the wildlife biology and conservation program.

**Note:** Prerequisites for required courses include BIOL F115X, BIOL F116X, BIOL F371, CHEM F105X, MATH F151X, and WLF F101. Depending upon a student's major, some of these prerequisites may satisfy the 6 elective credits in biology and wildlife required for this minor.

**Women, Gender and Sexuality Studies**

**Minor Only**

Women, gender and sexuality studies offers an interdisciplinary minor focusing on women, gender and sexuality in historical and contemporary experiences. In addition, the minor offers students the opportunity to study multiple issues related to gender, such as masculinities, femininities and sexualities. In addition to an introductory course and a theory course focusing on women's studies, the minor draws from a variety of other disciplines, including Alaska Native studies, anthropology, communication, education, English, foreign languages, history, journalism, justice, linguistics, literature, music, philosophy, political science, psychology, social work and sociology. The particular strength of the program lies in being interdisciplinary, with diverse course offerings and inquiry into gender and sexuality issues. The multiple voices and perspectives provide broad understanding of issues related to women, gender and sexuality. The minor helps students prepare for a variety of personal and career pursuits, as gender issues and women are involved in every aspect of human experience.

Minimum Requirements for Women, Gender and Sexuality Studies Minor: 15 credits

College of Liberal Arts
Department of Women, Gender and Sexuality Studies (http://www.uaf.edu/women/)
907-474-6249

**Programs**

**Minor**

- **Minor, Women, Gender and Sexuality Studies (p. 286)**

**Yup’ik Language and Culture**

**B.A. Degree**

The Yup’ik language and culture, or Yupiit Nakmiin Qaneryaraat Piciryaraat-lu, program strives to reinforce a Yup’ik identity that is centrally dependent on the language and culture, prepares the student for success in the world, and leads to acceptance at home. The program is based on the philosophy that a strong command of the Yup’ik language leads to a complete understanding of the Yup’ik way of life, the world around us, and our place in it.
Depending on interest, students in the program are encouraged to complete a minor in education or Alaska Native and rural development.

Minimum Requirements for Yup’ik Language and Culture Bachelor’s Degree: 120 credits

Learn more about the bachelor’s degree in Yup'ik language and culture (https://uaf.edu/academics/programs/bachelors/yupik-language-culture.php), including an overview of the program, career opportunities and more.

College of Liberal Arts
Department of Alaska Native Languages (https://www.uaf.edu/anlc/)
907-543-4500 or 907-474-7874
Program available at Kuskokwim Campus only

Programs
Degree
- B.A., Yup’ik Language and Culture (p. 287)

B.A., Yup'ik Language and Culture
Program Requirements
Students must earn a C- grade or better in each course.

Minimum Requirements for Yu'pik Language and Culture B.A.: 120 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General University Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general university requirements.</td>
<td>(p. 154)</td>
</tr>
<tr>
<td></td>
<td>General Education Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general education requirements.</td>
<td>(p. 157)</td>
</tr>
<tr>
<td></td>
<td>B.A. Degree Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the B.A. degree requirements.</td>
<td>(p. 164)</td>
</tr>
<tr>
<td></td>
<td>Yup’ik Language and Culture Program Requirements</td>
<td></td>
</tr>
<tr>
<td>ANS F401</td>
<td>Cultural Knowledge of Native Elders</td>
<td>3</td>
</tr>
<tr>
<td>or ANS F461</td>
<td>Native Ways of Knowing</td>
<td>3</td>
</tr>
<tr>
<td>YUP F130</td>
<td>Beginning Yup’ik Grammar</td>
<td>3</td>
</tr>
<tr>
<td>YUP F131</td>
<td>Beginning Yup’ik Grammar II</td>
<td>3</td>
</tr>
<tr>
<td>YUP F203</td>
<td>Conversational Central Yup’ik III</td>
<td>3</td>
</tr>
<tr>
<td>YUP F204</td>
<td>Conversational Central Yup’ik IV</td>
<td>3</td>
</tr>
<tr>
<td>YUP F205</td>
<td>Regaining Fluency in Yup’ik</td>
<td>3</td>
</tr>
<tr>
<td>YUP F206</td>
<td>Regaining Fluency in Yup’ik II</td>
<td>3</td>
</tr>
<tr>
<td>YUP F208</td>
<td>Yup’ik Composition</td>
<td>3</td>
</tr>
<tr>
<td>YUP F240</td>
<td>Introduction to Reading and Writing Yup’ik</td>
<td>3</td>
</tr>
<tr>
<td>YUP F301</td>
<td>Advanced Central Yup’ik</td>
<td>3</td>
</tr>
<tr>
<td>YUP F330</td>
<td>Yup’ik Literature/Yupiit Quliraitnek Igaryaraq</td>
<td>3</td>
</tr>
<tr>
<td>YUP F375</td>
<td>Yup’ik Philosophy/Umyurteqsaraq</td>
<td>3</td>
</tr>
<tr>
<td>YUP F488</td>
<td>Documenting Yup’ik Traditions/ Caliarkaq 1</td>
<td>3</td>
</tr>
</tbody>
</table>

1 Fulfills the baccalaureate capstone requirement.

Pre-professional Opportunities

UAF students may develop a program of study that prepares them for a variety of professional or graduate programs. Pre-professional advising provides information about groundwork for admission to a specific graduate program or professional school. Most professional schools do not require a specific major for admission to their program. However, many courses may be required before admittance into the program, so a student must research admissions requirements carefully.

The Academic Advising Center (907-474-6396, uaf.advising@alaska.edu) provides academic advising for all pre-professional areas (http://www.uaf.edu/advising/student-resources/#preprof). The Biology and Wildlife Department (https://www.bw.uaf.edu/) and the Department of Chemistry and Biochemistry (https://www.uaf.edu/chem/) provide additional academic advising for the medical, dental, pharmacy, veterinary and allied health pre-professional programs. The Justice Department provides academic advising for law pre-professional programs.
POSTBACCALAUREATE CERTIFICATES

REQUIREMENTS FOR POSTBACCALAUREATE CERTIFICATES

1. The student must complete at least 24 approved semester credits to earn a postbaccalaureate certificate. (See Regents’ Policy 10.04.030 (https://www.alaska.edu/bor/policy/10-04.pdf))

2. At least 15 credits must be earned after the posting of a previous baccalaureate degree.

3. Previously earned credits at regionally accredited institutions can be assigned to the certificate as long as at least 9 credits applicable to the student’s certificate program are earned through UAF after acceptance into the program.

4. Certificate programs may include non-coursework requirements.

5. Courses at the 500-level are for professional development and are not applicable toward any postbaccalaureate certificate, even by petition.

6. At all course levels, a student must earn a C- grade or higher in all courses required for the postbaccalaureate certificate unless otherwise specified by the program.

7. At least two-thirds of the credits required for the postbaccalaureate certificate must be taken at the upper division (300-400) or graduate (600) level.

8. If the requirements for a postbaccalaureate certificate are not met within seven years of formal acceptance into the program, admission expires and the student must reapply for admission and meet the admission requirements in effect at the time of readmission or graduation. (See How to Earn a Bachelor’s Degree (p. 154) in the UAF Catalog)

9. All credits counted toward the postbaccalaureate certificate, including transfer credits, must be earned within the consecutive seven-year period prior to graduation. (See How to Earn a Bachelor’s Degree (p. 154) in the UAF Catalog)

10. Students may be awarded two or more postbaccalaureate certificates simultaneously if the 15 additional credits and other requirements have been earned for each additional postbaccalaureate certificate.

CONCURRENT CERTIFICATES

Students may pursue concurrent postbaccalaureate certificates as long as they have formally applied and been accepted to each program through the Office of Admissions.

Postbaccalaureate Certificate Programs

- Accounting (p. 288)

Accounting

Overview

Postbaccalaureate Certificate

The accounting postbaccalaureate certificate provides candidates who already have a bachelor’s degree in another field of study with the accounting program core body of knowledge that will enable them to complete the CPA exam and seek professional employment as an accounting professional.

Minimum Requirements for Accounting Postbaccalaureate Certificate: 30 credits

School of Management
Department of Accounting and Information Systems (https://www.uaf.edu/som/degrees/certificates/)
907-474-7461

Programs

Degrees

- P.B.C.T., Accounting (p. 288)

P.B.C.T., Accounting

Admission Requirements

Complete the following admission requirements:

- Students need to have a completed baccalaureate degree.
- Both ACCT F261X and ACCT F262, or equivalents, must be completed prior to starting the program.

Program Requirements

Minimum Requirements for Accounting Postbaccalaureate Certificate: 30 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT F330</td>
<td>Income Tax</td>
<td>3</td>
</tr>
<tr>
<td>ACCT F342</td>
<td>Managerial Cost Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACCT F361</td>
<td>Intermediate Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ACCT F362</td>
<td>Intermediate Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>ACCT F452</td>
<td>Auditing</td>
<td>3</td>
</tr>
<tr>
<td>or ACCT F472</td>
<td>Internal and Government Auditing</td>
<td></td>
</tr>
<tr>
<td>AIS F316</td>
<td>Accounting Information Systems</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Complete four from the following:</td>
<td></td>
</tr>
<tr>
<td>ACCT F401</td>
<td>Advanced Accounting</td>
<td></td>
</tr>
<tr>
<td>ACCT F404</td>
<td>Advanced Cost Accounting and Controllership</td>
<td></td>
</tr>
<tr>
<td>ACCT F414</td>
<td>Governmental and Nonprofit Accounting</td>
<td></td>
</tr>
<tr>
<td>ACCT F430</td>
<td>Advanced Taxes</td>
<td></td>
</tr>
<tr>
<td>ACCT F472</td>
<td>Internal and Government Auditing</td>
<td></td>
</tr>
</tbody>
</table>
BA F454  Student Investment Fund
or BA F421  Business Analytics
GRADUATE DEGREES

General university and specific degree requirements for UAF graduate programs are described in this section of the catalog, along with requirements for each graduate program. You’ll find instructions for applying for admission in the Applying for Admission: Graduate Degree Programs (p. 31) section.

Academics, Policies and Regulations

Many academic policies and regulations apply to both graduate and undergraduate students. These guidelines are relevant to your academic experience at UAF and are important for you to read and understand. Topics include definitions and requirements for official university communications, full- and part-time student status, academic progress, academic dismissal, grading system and policies, FERPA and the student code of conduct. See UAF academics, policies and regulations (p. 50).

Master’s

How to Earn a Master’s Degree

TYPES OF MASTER’S DEGREES (P. 296)

GENERAL UNIVERSITY REQUIREMENTS (P. 296)

GRADUATE ADVISORY COMMITTEE

A graduate advisory committee is normally appointed within the first semester of study to guide students in developing and completing their degree programs. Committee members for graduate degrees are approved by the appropriate dean, usually upon recommendation of the department head, and by the dean of the Graduate School. Advisory committees for interdisciplinary students are approved by the dean of the Graduate School. Each interdisciplinary student follows procedures through the department of his or her advisory committee chair. The committee chair’s department will be the “home” of the interdisciplinary student for academic purposes.

The graduate advisory committee’s major responsibilities are to formulate a graduate study plan in consultation with the student by the end of the student’s second semester in the graduate program; to develop a tentative timetable for completion of all requirements for the degree program; to monitor the student’s progress in course work and research; to provide advice and feedback to the student on that progress; to file an Annual Report of Graduate Student Advisory Committee with the Graduate School; to approve, where appropriate, a research topic; to supervise the preparation of the research thesis or project when one is required; to uphold the standards of the college/school and the university; to inform the dean, in writing, if a student’s performance is inadequate and provide relevant recommendations; and to formulate and conduct the comprehensive examination and other exams as required by the department. The student’s advisor (major professor, advisory committee chair) acts as head of the graduate advisory committee and takes the lead in fulfilling these responsibilities.

Committee Composition

• The core advisory committee of master’s degree students must consist of three approved UAF faculty members. Participating faculty above this number are considered additional committee members. Committee membership must be approved by the home department, unit dean and the dean of the Graduate School.

• Retired or emeritus UAF faculty who have an association with the home department may serve on master’s advisory committees, upon expressed approval by the home department.

• Faculty from other universities and other professionals who are not employed by UAF may serve as either core or additional committee members on master’s advisory committees upon expressed approval by the home department. They may not serve as the chair of an advisory committee but may serve as co-chair.

GRADUATE STUDY PLAN

Graduate students must file a Graduate Study Plan with the Graduate School before the end of their second semester in a UAF graduate degree program. The GSP outlines the curriculum of study and a timetable the student must follow in meeting graduate degree requirements. The GSP is prepared by the advisory committee in consultation with the student. It is an agreement of mutual expectations between the student and the faculty committee. The GSP not only contains the specific degree requirements but also indicates the mechanism for fulfilling these requirements (e.g., via course work, examinations, readings, internships or other supervised experience) and a projected timetable.

ADVANCEMENT TO CANDIDACY

Advancement to candidacy formally establishes your specific degree requirements and should be done as soon as possible after qualifying. You are required to submit your application for advancement to candidacy one semester before you are awarded your degree.

The finalized Graduate Study Plan should be the basis for completing the Advancement to Candidacy form. Students must have a cumulative GPA of 3.0 in the courses identified on the Advancement to Candidacy form. For the purpose of satisfying degree requirements students must earn a B (3.0) or better (no P grades) in each F400-level course and a C grade (2.0) or better in each 600-level course. A B- is less than a 3.0 and, if obtained in a F400 course, will not count for meeting degree requirements; likewise a C- is less than a 2.0, and if obtained in an F600-level course, will not count for meeting degree requirements.

Admission to graduate study does not imply advancement to candidacy for a degree. The graduate advisory committee has the option of refusing to recommend a student to candidacy.

You may apply for advancement to candidacy for a specific master’s degree if you are in good standing and you have:

1. Satisfactorily completed at least 9-semester credits of graduate study at UAF (study after admission to a specific degree program).
2. Received approval of a provisional thesis or project topic, if applicable.
3. Received approval of the finalized Graduate Study Plan, including specific course work to be completed and any other requirements.

EXAMINATIONS

Examinations are given in both written and oral form, depending upon the policy of the program unit, the decision of the advisory committee and the specific examination being taken.

• Placement Examinations

Some programs have formalized placement exams designed to pinpoint a student’s strengths and weaknesses as an aid in developing the Graduate Study Plan. This evaluation is carried out during the student’s first semester at the university, preferably in the first month, and may be written, oral or both.
• Qualifying Examinations
A few master's degree programs require the student to complete a written and/or oral qualifying examination before advancement to candidacy. This examination is an interim evaluation of academic progress; the student may pass unconditionally or conditionally. A conditional pass indicates specific weaknesses that the student must remedy before degree requirements are completed. The Graduate Study Plan and later the Advancement to Candidacy form should include mechanisms for addressing these weaknesses.

• Comprehensive Examination
The comprehensive examination is given to determine whether the student has integrated knowledge and understanding of the principles and concepts underlying major and related fields. It may be oral or written or a combination of both. Ph.D. degree students normally take a written comprehensive examination within two academic years of entering the program, but no later than two academic years before the expected completion of the degree, whichever is earliest. The Ph.D. student’s advisory committee may choose to give an oral examination to supplement the written comprehensive examination. Each Ph.D. student must pass the comprehensive examination prior to advancement to candidacy.

• Defense of Project
Graduate students who are required to complete a project in partial fulfillment of degree requirements must pass an oral defense of project examination. The defense will consist of a presentation followed by questions on the research, analysis and written presentation. All committee members must participate at the project defense.

• Defense of Thesis or Dissertation Examination
Graduate students who are required to complete a thesis in partial fulfillment of degree requirements must pass an oral defense of thesis examination. The defense will consist of a presentation followed by questions on the research, analysis and written presentation. The Graduate School will not accept a thesis or dissertation for final submission until the student has successfully defended it. The Ph.D. dissertation defense is to be conducted on any UAF campus. All committee members must participate in the defense of thesis or dissertation.

• Examination Committee
In most cases, the student's graduate advisory committee prepares and gives the examinations under guidelines formulated by the faculty of the department in which the degree is being taken. In a few programs, examinations are replaced or supplemented by departmental or school examinations and administered by an established examining committee.

• Language/Research Tool Requirement
Proficiency in a second language or a research tool is not a university requirement, but some departments or programs may make this requirement. An advisory committee may specify a language or research tool if its requirements exceed those of the program. The specific language or research tool is determined by the advisory committee, guided by policies of the administrative unit in which the degree is offered. Generally, competency in a second language is required. However, upon approval of the department or program head, the committee may substitute computer languages, statistics, mathematics, or study in areas such as history or philosophy of science, business, administration, law, or economics. In all instances, topics selected must support the student's degree program.

• Steps Required for MBA and M.S.D.M. degrees
1. Formulate a unified degree program in cooperation with your graduate advisory committee. Degree programs must be composed of courses in the discipline or clearly related to and/or supportive of that discipline. All courses to be applied toward the degree must be approved by the advisory committee and follow the requirements set forth by the department that sponsors the degree.

2. Master’s degree students must:
a. Meet all requirements set forth in the General University Requirements (p. 296) section.
b. Submit an Appointment of Committee form by the end of the first semester of study.
c. Submit a Graduate Study Plan by the end of the second semester of study.
d. Submit a Report of Advisory Committee form by May 15 of every year.
e. Pass a written and/or oral comprehensive examination which may be combined with a project or thesis defense. Some programs (e.g., the M.Ed. degree program) may substitute a synthesizing paper for the comprehensive examination. This includes demonstration of the ability to synthesize information in the field at a level appropriate for a master's degree.
f. Submit an Advancement to Candidacy form to the Graduate School. Once submitted, this form supplants the GSP and formally establishes specific degree requirements.
g. Pass an oral defense of the thesis or project if a thesis or project is required.
h. Register as necessary and apply to graduate per the requirements noted in the Graduation (p. 290) section.
i. Complete all degree requirements within the seven-year time limit.
j. Archive thesis or project in the UAF Rasmuson Library if a thesis or project is required.

• Steps Required for M.A. and M.S.D.M. degrees
1. Formulate a unified degree program in cooperation with your graduate advisor. Degree programs must be composed of courses in the discipline or clearly related to and/or supportive of that discipline. All courses to be applied toward the degree
must be approved by the advisor and follow the requirements set forth by the department that sponsors the degree.

2. MBA and M.S.D.M. degree students must:
   a. Meet all requirements set forth in the General University Requirements section.
   b. Submit a Report of Advisory Committee form by May 15 of every year.
   c. Submit an Advancement to Candidacy form (or equivalent as pertains to MBA and M.S.D.M. programs) to the Graduate School. Once submitted, this form formally establishes the specific degree requirements.
   d. Register as necessary and apply to graduate per the requirements noted in the Graduation section.
   e. Complete all degree requirements within the seven-year time limit.

• **Credit Requirements**

1. Successfully complete a minimum of 30 semester credits, of which 21 semester credits must be at the graduate level, including thesis and research. Remaining credits may be applied from courses at the F400-level.
2. No F100-, F200-, F300-, or F500-level credits or audited courses may be applied toward master's degree requirements.
3. For programs requiring a thesis, a maximum of 12 credits of thesis (699)/research (698) (with a minimum of 6 credits of thesis) may be applied toward degree requirements. For programs requiring a project, a maximum of 6 research (698) credits may be applied toward degree requirements. A student may enroll in as many thesis and/or research credits as needed to remain in good standing.

• **Second Master's Degree Programs**

At the discretion of your advisory committee, admitting department and dean, you may transfer up to 20% of the minimum number of credits required for a UAF master's degree from a previously earned master's degree. Transferred credit may not be research, project or thesis credit. The transferred credit must be for completed graduate-level courses and not for portions of a course. For a 30-credit master's degree, for example, up to 6 graduate credits may be transferred; for a 45-credit master's degree, up to 9 graduate credits may be transferred. The following requirements apply to students who wish to pursue a second master's degree:

1. Submit a new application, including application processing fee, updated transcripts and three new reference letters.
2. Acceptable GRE scores submitted previously may be applied to a second master's degree.
3. Fulfill all general university requirements for the second master's degree, including taking a comprehensive exam (if required), completing a minimum of 30 semester credits (including thesis, research and transfer credits), and passing a defense of thesis or project.
4. All work used to fulfill degree requirements for a second master's degree must be completed within seven years.

• **Exceptions to Degree Requirements**

Deviations from academic requirements and regulations for graduate students must be approved by academic petition using the form available on the Graduate School website. Petitions must be approved by the student’s graduate advisory committee, the department chair of the student's program, the dean of the school or college and the dean of the Graduate School.

**Ph.D.**

**How to Earn a Doctoral Degree**

**GENERAL UNIVERSITY REQUIREMENTS (P. 295)**

**GRADUATE ADVISORY COMMITTEE**

A graduate advisory committee is normally appointed within the first semester of study to guide students in developing and completing their degree programs. Committee members for graduate degrees are approved by the appropriate dean, usually upon recommendation of the department head, and by the dean of the Graduate School. Advisory committees for interdisciplinary students are approved by the dean of the Graduate School. Each interdisciplinary student follows procedures through the department of his or her advisory committee chair. The committee chair’s department will be the “home” of the interdisciplinary student for academic purposes.

The graduate advisory committee's major responsibilities are to formulate a graduate study plan, in consultation with the student, by the end of the student’s second semester in the graduate program; to develop a tentative timetable for completion of all requirements for the degree program; to monitor the student’s progress in course work and research; to provide advice and feedback to the student on that progress; to file an Annual Report of Graduate Student Advisory Committee with the Graduate School; to approve, where appropriate, a research topic; to supervise the preparation of the research thesis or project when one is required; to uphold the standards of the college/school and the university; to inform the dean, in writing, if a student’s performance is inadequate and provide relevant recommendations; and to formulate and conduct the comprehensive examination and other exams as required by the department. The student’s advisor (major professor, advisory committee chair) acts as head of the graduate advisory committee and takes the lead in fulfilling these responsibilities.

**Committee Composition**

- The core advisory committee of doctoral degree students must consist of four approved UAF faculty members (all must have a Ph.D. or equivalent). For interdisciplinary students, one advisory committee member must be from a Ph.D.-granting department or be approved as the graduate school representative by the graduate school dean, based on prior experience advising Ph.D. students. Participating faculty above this number are considered additional committee members. Committee membership must be approved by the home department, unit dean and the dean of the Graduate School.
- Retired or emeritus UAF faculty who have an association with the home department may serve on doctoral advisory committees upon expressed approval by the home department.
- Faculty from other universities and other professionals who are not employed by UAF may serve as either core or additional committee members on doctoral advisory committees (all must have a Ph.D. or equivalent) upon expressed approval by the home department. They may not serve as the chair of an advisory committee but may serve as co-chair.

**GRADUATE STUDY PLAN**

Graduate students must file a Graduate Study Plan with the Graduate School before the end of their second semester in a UAF graduate degree program. The GSP outlines the curriculum of study and a timetable the student must follow in meeting graduate degree requirements. The GSP
is prepared by the advisory committee in consultation with the student. It is an agreement of mutual expectations between the student and the faculty committee. The GSP not only contains the specific degree requirements but also indicates the mechanism for fulfilling these requirements (e.g., via course work, examinations, readings, internships or other supervised experience) and a projected timetable.

**ADVANCEMENT TO CANDIDACY**

Advancement to candidacy formally establishes your specific degree requirements and should be done as soon as possible after qualifying. You are required to submit your application for advancement to candidacy one semester before you are awarded your degree.

The finalized Graduate Study Plan should be the basis for completing the Advancement to Candidacy form. Students must have a cumulative GPA of 3.0 in the courses identified on the Advancement to Candidacy form. For the purpose of satisfying degree requirements students must earn a B (3.0) or better (no P grades) in each F400-level course and a C grade (2.0) or better in each 600 level course. A B- is less than a 3.0 and, if obtained in a F400 course, will not count for meeting degree requirements; likewise a C- is less than a 2.0, and if obtained in an F600-level course, will not count for meeting degree requirements.

Admission to graduate study does not imply advancement to candidacy for a degree. The graduate advisory committee has the option of refusing to recommend a student to candidacy.

You may apply for advancement to candidacy for the Ph.D. degree if you are in good standing and you have:

1. Completed the full-time equivalent of two academic years of graduate study.
2. Completed at least 9 UAF credits.
3. Received approval of the Graduate Study Plan.
4. Obtained approval of the advisory committee for the title and synopsis of the thesis.
5. Passed a written comprehensive examination.

**EXAMINATIONS**

Examinations are given in both written and oral form, depending upon the policy of the program unit, the decision of the advisory committee and the specific examination being taken.

- **Placement Examinations**
  Some programs have formalized placement exams designed to pinpoint a student's strengths and weaknesses as an aid in developing the Graduate Study Plan. This evaluation is carried out during the student's first semester at the university, preferably in the first month, and may be written, oral or both.

- **Qualifying Examinations**
  A few master's degree programs require the student to complete a written and/or oral qualifying examination before advancement to candidacy. This examination is an interim evaluation of academic progress; the student may pass unconditionally or conditionally. A conditional pass indicates specific weaknesses that the student must remedy before degree requirements are completed. The Graduate Study Plan and later the Advancement to Candidacy form should include mechanisms for addressing these weaknesses.

- **Comprehensive Examination**
  The comprehensive examination is given to determine whether the student has integrated knowledge and understanding of the principles and concepts underlying major and related fields. It may be oral or written or a combination of both. Ph.D. degree students normally take a written comprehensive examination within two academic years of entering the program, but no later than two academic years before the expected completion of the degree (whichever is earliest). The Ph.D. student's advisory committee may choose to give an oral examination to supplement the written comprehensive examination. Each Ph.D. student must pass the comprehensive examination prior to advancement to candidacy.

- **Defense of Project**
  Graduate students who are required to complete a project in partial fulfillment of degree requirements must pass an oral defense of project examination. The defense will consist of a presentation followed by questions on the research, analysis and written presentation. All committee members must participate at the project defense.

- **Defense of Thesis or Dissertation Examination**
  Graduate students who are required to complete a thesis in partial fulfillment of degree requirements must pass an oral defense of thesis examination. The defense will consist of a presentation followed by questions on the research, analysis and written presentation. The Graduate School will not accept a thesis or dissertation for final submission until the student has successfully defended it. The Ph.D. dissertation defense is to be conducted on any UAF campus. All committee members must participate in the defense of thesis or dissertation.

- **Examination Committee**
  In most cases, the student's graduate advisory committee prepares and gives the examinations under guidelines formulated by the faculty of the department in which the degree is being taken. In a few programs, examinations are replaced or supplemented by departmental or school examinations and administered by an established examining committee.

- **Outside Examiner**
  An outside examiner representing and appointed by the dean of the Graduate School is required at all Ph.D. oral examinations (except the placement examination). The examiner must be from a different department than the student and the chair of the advisory committee. The outside examiner is present to determine that a stringent, unbiased examination is fairly administered and evaluated.

- **Language/Research Tool Requirement**
  Proficiency in a second language or a research tool is not a university requirement, but some departments or programs may make this requirement. An advisory committee may specify a language or research tool if its requirements exceed those of the program. The specific language or research tool is determined by the advisory committee, guided by policies of the administrative unit in which the degree is offered. Generally, competency in a second language is required. However, upon approval of the department or program head, the committee may substitute computer languages, statistics, mathematics, or study in areas such as history or philosophy of science, business, administration, law, or economics. In all instances, topics selected must support the student's degree program.

**REQUIREMENTS FOR PH.D.S**

The Doctor of Philosophy degree is granted in recognition of scholarly attainment and proven ability. UAF tenured faculty, tenure track faculty and research faculty are not eligible to become candidates for a graduate degree within the discipline in which they teach at UAF.

- **Steps Required for all Doctoral Degrees**
1. The Ph.D. degree requires at least three full years of study beyond the baccalaureate degree. (See transfer credit (p. 34).)

2. In addition to satisfactory completion of a plan of study developed in accordance with requirement listed above, the Ph.D. candidate must:
   a. Meet all requirements set forth in the General University Requirements (p. 295) section.
   b. Submit an Appointment of Committee form by the end of the first semester of study.
   c. Submit a Graduate Study Plan by the end of the second semester.
   d. Submit a Report of Advisory Committee form by May 15 of every year.
   e. Pass a written comprehensive exam.
   f. Submit an Advancement to Candidacy form to the Graduate School. Once submitted, this form supplants the GSP and formally establishes specific degree requirements.
   g. Satisfactorily complete a dissertation that is a substantial contribution to the body of knowledge in the area studied.
   h. Pass an oral defense of the dissertation (an outside examiner is required). The oral defense of the dissertation must be conducted on any UAF campus.
   i. Apply for graduation and be registered for a minimum of 3 graduate credits within your discipline and maintain enrollment in the semester that you successfully defend your thesis and you must be registered for a minimum of 1 graduate credit within your discipline and maintain enrollment during the semester that you graduate.
   j. Complete all degree requirements within the 10-year time limit.
   k. Archive dissertation in the UAF Rasmuson Library.

**Credit Requirements**

- A minimum of 18 thesis (F699) UAF credits must be earned.
- No F100-, F200-, F300-, F500-level credits or audited courses may be applied toward the Ph.D.'s degree requirements.

**Exceptions to Degree Requirements**

Deviations from academic requirements and regulations for graduate students must be approved by academic petition using the form available on the Graduate School website. Petitions must be approved by the student's graduate advisory committee, the department chair of the student's program, the dean of the school or college, and the dean of the Graduate School.

### Graduate or Postbaccalaureate Certificates

**How to Earn Graduate Certificates and/or Postbaccalaureate Certificates**

**GENERAL UNIVERSITY REQUIREMENTS (P. 296)**

Graduate certificate programs are designed to provide education past the baccalaureate level and/or to meet clearly defined educational needs of students who have already completed a master's degree. Completion of a graduate certificate should prepare students to better accomplish their goals or meet employment criteria.

These programs provide the student with formal recognition of mastery of a clearly defined academic topic. The credit hours may be applied to other graduate programs where applicable.

Note that graduate certificates follow the same policies as master's degree programs.

**REQUIREMENTS FOR GRADUATE CERTIFICATES**

In order to earn a graduate certificate, students must be admitted to the program and complete the requirements listed in the program section of this chapter. Most graduate certificates are between 12-18 credits. You must have a cumulative GPA of at least 3.0 in all course work and be registered in the semester you plan to graduate.

Students may elect to complete their program under the requirements of the catalog in effect at the time of formal acceptance to a graduate certificate program or the catalog in effect at the time of graduation. Students may earn more than one graduate certificate by completing all requirements for each additional program.

**REQUIREMENTS FOR POSTBACCALAUREATE CERTIFICATES**

For information regarding Postbaccalaureate Certificate Requirements visit the Postbaccalaureate Certificate page. (p. 288)

**CONCURRENT CERTIFICATES**

Students may pursue concurrent postbaccalaureate certificates as long as they have formally applied and been accepted to each program through the Office of Admissions.

**Graduate Assistantships**

**Graduate Assistantships**

Graduate assistants receive stipends for either a semester or the academic year. Graduate assistants can be paid for a maximum of 20 hours per week while school is in session. Students with assistantships must be registered for at least 6 credits during both the fall and spring semesters. (Audited credits are not eligible.)

Any exceptions to the 20-hour per week rule must be approved by the student’s committee chair, department head, college dean. Complete a Student Overload Request form (https://www.uaf.edu/gradschool/forms/document_student_forms/Workload-Exception-Request.pdf) to request approval of more than 20 student work hours per week. Foreign nationals on temporary student visas are not permitted to work more than 20 hours a week while classes are in session and are not eligible for an overload waiver.

Teaching assistantships include a tuition payment by the university for no more than 10 credits each semester if the workload is 15 to 20 hours per week. If the workload is 10 to 14 hours per week, no more than 5 credits will be included. No tuition will be included if the workload is less than 10 hours per week.

Research assistantships include a tuition payment by grants/contracts for no more than 10 credits each semester if the workload is 15 to 20 hours per week. If the workload is 10 to 14 hours per week, no more than 5 credits will be included. No tuition will be included if the workload is less than 10 hours per week.

Tuition payments should be used for courses directly related to the student’s degree program. All fees are the responsibility of the student unless the department or institute makes other arrangements with the UAF Graduate School prior to registration.

A graduate student with a GPA of less than 3.0 for one semester will need to apply for an appeal with Financial Aid to continue with...
The assistantship. Please see the Financial Aid forms page (https://www.uaf.edu/finaid/forms/) for more information.

General University Requirements for Ph.D.

General University Requirements

- **Catalog and Time Limit**
  You may elect to graduate under the degree requirements in effect and published in the UAF catalog in any one of the previous seven years in which you are enrolled as a master’s degree student, or in the previous 10 years if you are a doctoral student. To be considered enrolled in your master’s or doctoral degree program you must meet the registration requirements per academic year. If you enroll through the nondegree student registration process, you are not considered enrolled as a degree student during that time.

  All nonacademic policies and regulations listed in the current catalog apply, regardless of the catalog you are using for your degree requirements. You must satisfactorily complete all course work listed on your Advancement to Candidacy form and all other degree requirements within seven years for a master’s degree and 10 years for a doctoral student.

- **Grades and Grade Point Average**
  You must have a cumulative GPA of 3.0 in the courses identified on your Advancement to Candidacy form to remain in good standing and to graduate. In addition, for the purpose of satisfying degree requirements, you must earn a B (3.0) or better (no P grades) in each F400-level course and a C grade (2.0) or better in each F600-level course. NOTE: A B- is less than a 3.0 and, if obtained in a F400-level course, will not count for meeting degree requirements; likewise, a C- is less than a 2.0 and, if obtained in a F600-level course, will not count for meeting degree requirements.

- **Registration Requirement**
  Graduate students must be registered for at least 6 credits per year (fall, spring, summer), at the graduate or F400-level in courses relevant to the graduate degree, while actively working toward a degree. Those who wish to temporarily suspend their studies should obtain an approved leave of absence. Additionally, you must be registered in both the semester that you defend and the semester in which you receive your degree as per the requirements under Graduation (p. 296).

- **Temporary Leave of Absence**
  If you need to temporarily suspend studies while earning a graduate degree, you must obtain an approved leave of absence. If you fail to register for at least 6 graduate or F400-level credits in a school year (fall, spring or summer semester) or to obtain a leave of absence, you will be dropped from graduate study and will have to be reinstated before resuming graduate studies. Contact the Graduate School for information at 907-474-7464.

- **Transfer Credit**
  Up to one-half of all graduate degree credits approved for a graduate program may be transferred from UAA and UAS. No more than one-third of approved program credits may be transferred from other accredited institutions outside the UA system. Transferred credits may not be used from previously earned undergraduate degrees. A minimum B grade (3.0) is required in all graduate courses presented for transfer. A P grade (pass) is not acceptable for transfer credit.

- **Credits Earned While Nondegree Seeking**
  A student who earned post-baccalaureate degree credits while studying as a nondegree student at UAF may, with approval of the graduate advisory committee, apply those credits toward a graduate degree. However, no more than one-half of all credits used to meet the requirements of a graduate degree may be credits earned as a nondegree student.

- **Course Restrictions**
  You may not use credit by examination, audited courses, F100-, F200-, F300-, and F500-level courses, or courses taken under the credit/no credit option to fulfill the basic course requirements of any degree program. No more than 12 credits of special topics courses (F693 or F695) or individual study (F697) may be used toward a graduate degree. The dean of the Graduate School must approve requests for exceptions to the limit.

- **Deficiencies**
  Your advisory committee may require that you remedy certain deficiencies in your program. Your committee will determine early in the program both how to remedy the deficiencies and the minimum level of performance required of you. Graded undergraduate courses taken to remedy a deficiency must receive a grade of B (3.0) or better. Deficiency courses are not listed on the Advancement to Candidacy form.

- **English Proficiency**
  You must be proficient in written and oral English. Your advisory committee will determine requirements to remove any such deficiencies. These requirements may not be used to fulfill the language/research tool requirement of some departments.

- **Cooperative Programs**
  Some students may develop cooperative programs using specific courses from other universities before being admitted to graduate study at UAF. As part of the application process, the cooperative program must be included in an approved Graduate Study Plan. The student must complete a minimum of 12 semester credits in residence at UAF; in addition to thesis and research. The following guidelines are for collaborative Ph.D. graduate studies across all UA academic units. Some individual degree programs have additional requirements which are included in specific program descriptions in the graduate degree program (p. 298) section. The guidelines described here apply only to programs that have not established different requirements.

  a. At least four faculty members shall serve on the graduate advisory committee for each Ph.D. student. At least two committee members shall be UAF faculty. One of the UAF committee members must be on a tenure-track appointment in a Ph.D.-granting department. The committee shall be chaired or co-chaired by a UAF faculty member.

  b. The graduate advisory committee and its chair and/or co-chairs must be approved by the program director and the dean of the Graduate School.

  c. UAF rules and regulations on graduate studies shall apply to all UAF graduate students, including those concurrently enrolled at UAA and UAS.

  d. The graduate advisory committee must meet at least once a year to update the Graduate Study Plan and to review the student’s progress toward the degree. The annual progress report must be signed by all committee members and submitted to the dean of the UAF Graduate School.
Changing Programs
Graduate students may change their program only when the areas of emphasis or the degree are within the same department (e.g., from an M.A. in anthropology to a Ph.D. in anthropology, or from a Ph.D. in Biochemistry and molecular biology to a Ph.D. in environmental chemistry). If the change meets those requirements, you may change programs by completing a change of major form, available from the Graduate School’s website. Regardless of when you submit the form, a change of program doesn’t become effective until the beginning of the upcoming fall or spring semester. If, however, you want to change to a program in a different department, school or college (e.g., from an M.S. in civil engineering to an M.S. in biology), you must submit a new application for admission so faculty in the new degree program may fully review your credentials. For more information, contact the Graduate School at 907-474-7464.

Graduation
- Responsibility
You are responsible for meeting all requirements for graduation. Your Advancement to Candidacy must be received by the Graduate School the semester before you intend to graduate.

  - Master’s with thesis or project and all Ph.D. programs
    - You must be registered for a minimum of 3 graduate-level credits within your discipline the semester that you successfully defend your thesis or project and plan to graduate.
    - If you have already successfully defended but missed the previous semester graduation deadline, then you must be registered for a minimum of 1 graduate-level credit within your discipline the semester that you plan to graduate.

  - Master’s with non-thesis/non-project
    - You are not required to register for the semester within which you plan to graduate.

  - Graduate Certificate or Graduate Licensure
    - You are not required to register for the semester within which you plan to graduate.

  - No Advancement to Candidacy required.

Additional information on the steps or paperwork required to graduate for all Master’s and Ph.D. programs is available on the Graduate School’s website (https://www.uaf.edu/gradsch/current/ready-to-graduate/).

- Application for Graduation
You must file an application for graduation and a non-refundable fee with the Office of the Registrar. We encourage you to work with your advisor/committee chair before applying for graduation to meet any departmental deadlines. Applications for graduation filed after the published deadline will be processed for graduation the following semester. You need not have all requirements met before you apply for graduation. The application is an indication that you are planning to finish all degree requirements during the intended graduation semester. Students who apply for graduation and who do not complete degree requirements by the end of the semester must reapply for graduation and pay the fee again.

- Diplomas and Commencement
UAF issues diplomas to graduates three times each year: in September, January and June. All students who complete degree requirements during the academic year are invited to participate in the annual commencement ceremony at the end of spring semester. Names of students receiving degrees appear in the commencement program and are released to the media unless the student has a confidential hold on file with the Office of the Registrar. Students who do not want their names to be released may so indicate on the application for graduation form. Graduates are responsible for ordering caps and gowns through the UAF bookstore in early spring.

Types of Master’s Degrees
General University Requirements

- Master’s Degrees

  - Catalog and Time Limit
You may elect to graduate under the degree requirements in effect and published in the UAF catalog in any one of the previous seven years in which you are enrolled as a master’s degree student, or in the previous 10 years if you are a doctoral student. To be considered enrolled in your master’s or doctoral degree program you must meet the registration requirements per academic year. If you enroll through the nondegree student registration process, you are not considered enrolled as a degree student during that time. All nonacademic policies and regulations listed in the current catalog apply, regardless of the catalog you are using for your degree requirements. You must satisfactorily complete all course work listed on your Advancement to Candidacy form and all other degree requirements within seven years for a master’s degree and 10 years for a doctoral student.

  - Grades and Grade Point Average
You must have a cumulative GPA of 3.0 in the courses identified on your Advancement to Candidacy form to remain in good standing and to graduate. In addition, for the purpose of satisfying degree requirements, you must earn a B (3.0) or better (no P grades) in each F400-level course and a C grade (2.0) or better in each F600-level course. NOTE: A B- is less than a 3.0 and, if obtained in a F400-level course, will not count for meeting degree requirements; likewise, a C- is less than a 2.0 and, if obtained in a F600-level course, will not count for meeting degree requirements.

  - Registration Requirement
Graduate students must be registered for at least 6 credits per year (fall, spring, summer), at the graduate or F400-level in courses relevant to the graduate degree, while actively working toward a degree. Those who wish to temporarily suspend their studies should obtain an approved leave of absence. Additionally, you must be registered in both the semester that you defend and the semester in which you receive your degree as per the requirements under Graduation (p. 290).

  - Temporary Leave of Absence
If you need to temporarily suspend studies while earning a graduate degree, you must obtain an approved leave of absence. If you fail to register for at least 6 graduate or F400-level credits in a school year
(fall, spring or summer semester) or to obtain a leave of absence, you will be dropped from graduate study and will have to be reinstated before resuming graduate studies. Contact the Graduate School for information at 907-474-7464.

- **Transfer Credit**
  Up to one-half of all graduate degree credits approved for a graduate program may be transferred from UAA and UAS. No more than one-third of approved program credits may be transferred from other accredited institutions outside the UA system. Transferred credits may not be used from previously earned undergraduate degrees. A minimum B grade (3.0) is required in all graduate courses presented for transfer. A P grade (pass) is not acceptable for transfer credit.

- **Credits Earned While Nondegree Seeking**
  A student who earned post-baccalaureate degree credits while studying as a nondegree student at UAF may, with approval of the graduate advisory committee, apply those credits toward a graduate degree. However, no more than one-half of all credits used to meet the requirements of a graduate degree may be credits earned as a nondegree student.

- **Course Restrictions**
  You may not use credit by examination, audited courses, F100-, F200-, F300-, and F500-level courses, or courses taken under the credit/no credit option to fulfill the basic course requirements of any degree program. No more than 12 credits of special topics courses (F693 or F695) or individual study (F697) may be used toward a graduate degree. The dean of the Graduate School must approve requests for exceptions to the limit.

- **Deficiencies**
  Your advisory committee may require that you remedy certain deficiencies in your program. Your committee will determine early in the program both how to remedy the deficiencies and the minimum level of performance required of you. Graded undergraduate courses taken to remedy a deficiency must receive a grade of B (3.0) or better. Deficiency courses are not listed on the Advancement to Candidacy form.

- **English Proficiency**
  You must be proficient in written and oral English. Your advisory committee will determine requirements to remove any such deficiencies. These requirements may not be used to fulfill the language/research tool requirement of some departments.

**CHANGING PROGRAMS**

Graduate students may change their program only when the areas of emphasis or the degree are within the same department (e.g., from an M.A. in anthropology to a Ph.D. in anthropology, or from a Ph.D. in Biochemistry and molecular biology to a Ph.D. in environmental chemistry). If the change meets those requirements, you may change programs by completing a change of major form, available from the Graduate School’s website. Regardless of when you submit the form, a change of program doesn’t become effective until the beginning of the upcoming fall or spring semester. If, however, you want to change to a program in a different department, school or college (e.g., from an M.S. in civil engineering to an M.S. in biology), you must submit a new application for admission so faculty in the new degree program may fully review your credentials. For more information, contact the Graduate School at 907-474-7464.

**GRADUATION**

- **Responsibility**
  You are responsible for meeting all requirements for graduation. Your Advancement to Candidacy must be received by the Graduate School the semester before you intend to graduate.

- **Master’s with thesis or project and all Ph.D. programs**
  - You must be registered for a minimum of 3 graduate-level credits within your discipline the semester that you successfully defend your thesis or project and plan to graduate.
  - If you have already successfully defended but missed the previous semester graduation deadline, then you must be registered for a minimum of 1 graduate-level credit within your discipline the semester that you plan to graduate.

- **Master’s with non-thesis/non-project**
  - You are not required to register for the semester within which you plan to graduate.

- **Graduate certificate or graduate licensure**
  - You are not required to register for the semester within which you plan to graduate.
  - No Advancement to Candidacy required.

For additional information on the steps or paperwork required to graduate for all master’s and Ph.D. programs, please visit the Ready to Graduate webpage (https://www.uaf.edu/gradschool/students/ready_to_graduate/).

- **Application for Graduation**
  You must file an application for graduation and a nonrefundable fee with the Office of the Registrar. We encourage you to work with your advisor/committee chair before applying for graduation to meet any departmental deadlines. Applications for graduation filed after the published deadline will be processed for graduation the following semester. You need not have all requirements met before you apply for graduation. The application is an indication that you are planning to finish all degree requirements during the intended graduation semester. Students who apply for graduation and who do not complete degree requirements by the end of the semester must reapply for graduation and pay the fee again.

- **Diplomas and Commencement**
  UAF issues diplomas to graduates three times each year: in September, January and June. All students who complete degree requirements during the academic year are invited to participate in the annual commencement ceremony at the end of spring semester. Names of students receiving degrees appear in the commencement ceremony program and are released to the media unless the student has a confidential hold on file with the Office of the Registrar. Students who do not want their names to be released may so indicate on the application for graduation form. Graduates are responsible for ordering caps and gowns through the UAF bookstore in early spring.
Types of Master’s Degrees

Types of Master’s Degrees

MASTER OF ARTS — WITH PROJECT
1. Successfully complete at least 30 credits of course work including at least 6 credits of project work (F698), unless the degree requirements of a particular program specify that a 3-credit project is permitted. No more than 6 research (F698) credits may be counted toward the minimum degree credits. At least 21 credits, including those earned for thesis and research/project, must be at the F600 level.
2. Pass a written and/or oral comprehensive examination (may be combined with the project defense).
3. Present and defend the project.
4. Submit a completed and signed project defense form to the Graduate School.
5. Archive the project in the UAF Rasmuson Library.

MASTER OF ARTS — WITH THESIS
1. Successfully complete at least 30 credits of course work including at least 6 credits of thesis (F699). No more than 12 thesis/research (F699/F698) credits may be counted toward the minimum degree credits. At least 21 credits, including those earned for thesis and research/project, must be at the F600 level.
2. Pass a written and/or oral comprehensive examination (may be combined with the thesis defense).
3. Present and defend the thesis.
4. Submit a completed and signed thesis defense form to the Graduate School.
5. Archive the thesis in the UAF Rasmuson Library.

MASTER OF BUSINESS ADMINISTRATION
1. Complete at least 30 credits of course work. At least 24 credits must be at the F600 level (6 at the F400-level).
2. Successful completion of a capstone course that includes demonstration of the ability to synthesize information in the field at a level appropriate for a master’s degree.

MASTER OF EDUCATION
A general description is available in education (p. 315).

MASTER OF FINE ARTS
A general description is available in creative writing (see English (p. 331)) and art (p. 301).

MASTER OF MARINE STUDIES
A general description is available in marine studies (p. 345).

MASTER OF MUSIC
1. Minimum credits required—36 credits
2. Successfully complete the performance of a graduate music recital.
3. Successfully complete an oral defense of an approved research project paper.

MASTER OF NATURAL RESOURCES AND ENVIRONMENT
A general description is available in natural resources and environment (p. 349).

MASTER OF SCIENCE — WITH PROJECT
1. Successfully complete at least 30 credits of course work including at least 6 credits of project work (F698), unless the degree requirements of a particular program specify that a 3-credit project is permitted. No more than 6 research (F698) credits may be counted toward the minimum degree credits. At least 21 credits, including those earned for thesis and research/project, must be at the F600 level.
2. Pass a written and/or oral comprehensive examination (may be combined with the project defense).
3. Present and defend the project.
4. Submit a completed and signed project defense form to the Graduate School.
5. Archive the project in the UAF Rasmuson Library.

MASTER OF SCIENCE — WITH THESIS
1. Successfully complete at least 30 credits of course work including at least 6 credits of thesis (F699). No more than 12 thesis/research (F699/F698) credits may be counted toward the minimum degree credits. At least 21 credits, including those earned for thesis and research/project, must be at the F600 level.
2. Pass a written and/or oral comprehensive examination (may be combined with the thesis defense).
3. Present and defend the thesis.
4. Submit a completed and signed thesis defense form to the Graduate School.
5. Archive the thesis in the UAF Rasmuson Library.

MASTER OF SECURITY AND DISASTER MANAGEMENT
1. Complete at least 30 credits of course work. At least 24 credits must be at the F600 level (6 at the F400-level).
2. Successful completion of a capstone course that includes demonstration of the ability to synthesize information in the field at a level appropriate for a master’s degree.

ONE HEALTH MASTER
1. Complete at least 30 credits of course work. At least 24 credits must be at the F600 level or higher (6 at the F400-level).
2. Successful completion of a capstone course that includes demonstration of the ability to synthesize information in the field at a level appropriate for a master’s degree.

WRGP PROGRAMS
UAF’s master’s programs in Arctic and Northern studies, administration of justice, and rural development have been selected as unique or specialized graduate programs by the Western Regional Graduate Program of the Western Interstate Commission for Higher Education. This designation means that residents of Arizona, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, North Dakota, Oregon, Utah, Washington and Wyoming who major in any of these specialized programs at UAF pay resident tuition.

Additional information is available at uaf-grad-school@alaska.edu or 907-474-7464.
Anthropology

M.A., Ph.D. Degrees

The anthropology program offers a balanced and flexible program of academic courses and research opportunities in cultural anthropology, linguistic anthropology, archaeology and biological anthropology. Anthropology contributes to an understanding of the complex problems of human behavior, biology, language, cultural and social organization, and the relationship of humans to their environments. Research carried out in the field, laboratory and library emphasizes past and present modes of living and the origins and distribution of peoples and cultures throughout the world, with special attention to the circumpolar North.

The graduate program emphasizes general preparation in the field of anthropology. Such preparation enables graduates of the master’s program to pursue more advanced training leading to the Ph.D. in anthropology, prepares them to teach anthropology within secondary education and undergraduate levels of higher education, and prepares students for careers with various levels of government in which some anthropological background or expertise is beneficial. Field research in Alaska is a common experience for graduate students in anthropology. All students must have fieldwork and laboratory experience appropriate to the discipline or subdiscipline.

The primary focus of the Ph.D. program is on the circumpolar North, although graduate students and faculty also conduct research elsewhere, in particular Africa and North America. The Ph.D. is available with an emphasis in any of the four subfields of anthropology.

Minimum Requirements for Anthropology Master’s and Doctorate Degrees: M.A.: 30-36 credits; Ph.D.: 18 thesis credits

College of Liberal Arts
Department of Anthropology (http://www.uaf.edu/anthro/)
907-474-7288

Programs

Degrees

• M.A., Anthropology (p. 299)
• Ph.D., Anthropology (p. 299)

M.A., Anthropology

Admission Requirements

Complete the admission process including the following:

• Submit GRE scores.

Program Requirements

Minimum Requirements for Anthropology

M.A. Degree: 30-36 credits

<table>
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<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>ANTH F629</td>
<td>Structures of Anthropological Argument</td>
<td>3</td>
</tr>
</tbody>
</table>

Ph.D., Anthropology

Admission Requirements

Complete the admission process including the following:

• Submit GRE scores.

Program Requirements

Minimum Requirements for Anthropology

Ph.D.: 18 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH F652</td>
<td>Research Design and Professional Development Seminar</td>
<td>3</td>
</tr>
<tr>
<td>ANTH F698 (or ANTH F699)</td>
<td>Non-thesis Research/Project Thesis</td>
<td>6</td>
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</tbody>
</table>

Complete four semesters of a foreign language or proficiency in a research tool. ¹

Complete 18 credits established by the advisory committee ¹8

¹ Students wanting a linguistic anthropology emphasis must complete the foreign language option as well as taking ANTH F631 and ANTH F632 as part of their 18 credits.

Note: At least 24 credits must be regular course work (not research or thesis) with 21 of these credits at the F600 level.

Ph.D., Anthropology

Admission Requirements

Complete the admission process including the following:

• Submit GRE scores.

Program Requirements

Minimum Requirements for Anthropology

Ph.D.: 18 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH F652</td>
<td>Research Design and Professional Development Seminar</td>
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<td>6</td>
</tr>
</tbody>
</table>

Complete four semesters of a foreign language or proficiency in a research tool. ¹

Complete 18 credits established by the advisory committee ¹8

¹ Students wanting a linguistic anthropology emphasis must complete the foreign language option as well as taking ANTH F631 and ANTH F632 as part of their 18 credits.

Note: At least 24 credits must be regular course work (not research or thesis) with 21 of these credits at the F600 level.

Arctic and Northern Studies

M.A. Degree

The Arctic and Northern studies program is an interdisciplinary program for the study of problems and policy issues specific to the Arctic and circumpolar North.

Topics related to Arctic and Northern studies include:

• Arctic politics and policy
• Northern history
• Individual topics

At the University of Alaska Fairbanks (http://www.uaf.edu/), Arctic and Northern studies students can benefit from the extensive Northern expertise and research activities of UAF faculty, rich Alaska and circumpolar collections of the UAF Rasmuson Library and University of Alaska Museum of the North, and, of course, being surrounded by the North itself. Arctic and Northern studies faculty have won major awards for excellence in teaching, research and public service.
Minimum Requirements for Arctic and Northern Studies Master's Degree:
30 credits

College of Liberal Arts
907-474-7126
Interdisciplinary
Arctic and Northern Studies Program (http://www.uaf.edu/arctic/)

Programs
Degree
• M.A., Arctic and Northern Studies (p. 300)

M.A., Arctic and Northern Studies

Admission Requirements
Complete the following admission requirements:
• A bachelor’s degree from an accredited university.
• A minimum cumulative grade point average of 3.0 in undergraduate studies (exceptions are made for students with outstanding qualifications).
• A minimum grade point average of 3.0 in the undergraduate major (exceptions are made for students with outstanding qualifications).

Program Requirements
Students must earn a C- grade or better in each course.

Minimum Requirements for Arctic and Northern Studies M.A.: 30 credits

CONCENTRATIONS: ARCTIC POLITICS AND POLICY (P. 300), NORTHERN HISTORY (P. 300), INDIVIDUALIZED STUDY (P. 300)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ACNS F600</td>
<td>Perspectives on the North</td>
<td>3</td>
</tr>
<tr>
<td>ACNS F601</td>
<td>Research Methods and Sources in the North</td>
<td>3</td>
</tr>
<tr>
<td>ACNS F689</td>
<td>Thesis Writing Workshop</td>
<td>3</td>
</tr>
<tr>
<td>ACNS F698</td>
<td>Non-thesis Research/Project</td>
<td>6-12</td>
</tr>
<tr>
<td>or ACNS F699</td>
<td>Thesis</td>
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</tr>
</tbody>
</table>

Complete 3 elective credits at 400 or 600 level

Arctic Politics and Policy

Complete 1 of the following 2 courses:
ACNS/PS F652 International Relations of the North
ACNS/PS F669 Arctic Politics and Governance

Complete 9 credits from the following:
ACNS/PS F603 Public Policy
ACNS/GEOG/GEOS F629 Circumpolar North
ACNS/PS F647 U.S. Environmental Politics
ACNS/PS F652 International Relations of the North
ACNS/PS F655 Political Economy of the Global Environment
ACNS F657/PS F650 Comparative Indigenous Rights and Policies
ACNS/PS F660 Government and Politics of Canada
ACNS/PS F662 Alaska Government and Politics
ACNS/PS F668 Government and Politics of Russia
ACNS/PS F669 Arctic Politics and Governance

Northern History

Complete the following course:
ACNS F675 Historiography Capstone

Complete 9 credits from the following:
ACNS/HIST F604 Modern Scandinavia
ACNS F611 Environmental History
ACNS F661/HIST F662 History of Alaska
ACNS/HIST F663 Imperial Russia, 1700-1917
ACNS/HIST F664 Soviet and Post-Soviet Russia
ACNS/HIST F681 Polar Exploration and Its Literature
ACNS/HIST F683 20th-century Circumpolar History

Individualized Study

Complete 12 credits of the following:
Courses offered in the Arctic and Northern studies program or other approved courses, selected with the approval of your graduate advisory committee members.

Arctic Security

Graduate Certificate

The Arctic security graduate certificate gives students the education and expertise to understand and better navigate the numerous concerns surrounding the Arctic region. With the transforming Arctic and its associated climate, security, geopolitical and resilience-related developments, a thorough understanding of the region will be key to those who work within the fabric of local, state, national and international settings. An Arctic security graduate certificate represents an endorsement of advanced academic education and a more robust understanding of the operational context of the Arctic.
Minimum Requirements for Arctic Security Graduate Certificate: 12 credits

School of Management
Department of Homeland Security and Emergency Management (http://www.uaf.edu/som/degrees/graduate/msdm/)
907-474-7461

Programs
Graduate Certificate
• Graduate Certificate, Arctic Security (p. 301)

Graduate Certificate, Arctic Security
Admission Requirements
Complete the following admission requirements:

• Student must have a completed baccalaureate degree.
• If the degree is in a non-security or arctic related field and has a 3.0 or higher cumulative GPA, they will be required to start with one 400-level course, which is an elective option for the degree.
• Students that have already obtained a graduate degree will not be required to complete an entrance exam or complete a 400-level course first.
• Students with a baccalaureate degree in a related field, with a cumulative GPA of 3.0 or higher will not have any additional testing or entry course requirements.
• If the student has a cumulative GPA between 3.0 and 2.75, regardless of the field of study, they will be required to complete the Watson Glaser Critical Thinking Exam.
• If a student has a cumulative GPA below 2.75, they will be required to submit results from either the GRE or GMAT.

Program Requirements
Minimum Requirements for Arctic Security Graduate Certificate: 12 credits

<table>
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<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>General University Requirements</td>
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</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (p. 294)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Graduate Certificate Requirements</td>
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<tr>
<td></td>
<td>Complete the graduate certificate requirements. (p. 294)</td>
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<tr>
<td></td>
<td>Arctic Security Program Requirements</td>
<td></td>
</tr>
<tr>
<td>HSEM F607</td>
<td>Vulnerability and Protection</td>
<td>3</td>
</tr>
<tr>
<td>HSEM F621</td>
<td>Circumpolar Competition-Arctic Diplomacy and Defense</td>
<td>3</td>
</tr>
<tr>
<td>HSEM F622</td>
<td>Arctic Strategies and Operations</td>
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<tr>
<td></td>
<td>Complete one of the following:</td>
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<tr>
<td>HSEM F406</td>
<td>Comparative Homeland Security</td>
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<tr>
<td>HSEM F408</td>
<td>Homeland Defense and Security</td>
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<tr>
<td>HSEM F609</td>
<td>Human Security</td>
<td></td>
</tr>
<tr>
<td>HSEM F692</td>
<td>Security and Disaster Management Seminar</td>
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</tr>
<tr>
<td>ACNS F652</td>
<td>International Relations of the North</td>
<td></td>
</tr>
</tbody>
</table>

Art
M.F.A. Degree
The M.F.A. degree provides artists with the necessary background to compete for state, national and international positions. Career opportunities include placement in state and federal arts organizations, galleries, museums, colleges and universities. This degree includes exposure to contemporary art world issues, the historic role of the artist and northern art. The M.F.A. degree in visual art is a terminal degree. Study is two-thirds in studio art. The degree culminates in a solo gallery exhibition.

Minimum Requirements for Art Master’s Degree: 60 credits

College of Liberal Arts
Department of Art (http://www.uaf.edu/art/)
907-474-7530

Programs
Degrees
• M.F.A., Art (p. 301)

M.F.A., Art
Admission Requirements
• Complete the following admission requirements:
  a. Submit a separate portfolio of work as specified in the Art Department guidelines.
  b. Complete a B.F.A. or B.A. in art from a university other than UAF (or from UAF with special permission from the Art Department faculty), or complete one consecutive year of classes from an accredited M.F.A. program other than UAF. In cases where an exceptional portfolio is submitted, students with another undergraduate degree will be accepted provisionally and with the condition that they make up any deficiencies as determined by their graduate committee.

Program Requirements
Minimum Requirements for Art M.F.A.: 60 credits
CONCENTRATIONS: CERAMICS, COMPUTER ART, DRAWING, NATIVE ARTS, PAINTING, PHOTOGRAPHY, PRINTMAKING, SCULPTURE

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Master’s Degree Requirements</td>
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<tr>
<td></td>
<td>Complete the master’s degree requirements. (p. 298)</td>
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<tr>
<td></td>
<td>Art Program Requirements</td>
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<tr>
<td>ART F661</td>
<td>Mentored Teaching in Art</td>
<td>1</td>
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<tr>
<td>ART F663</td>
<td>Seminar in Art History</td>
<td>3</td>
</tr>
<tr>
<td>ART F690</td>
<td>Current Problems</td>
<td>3</td>
</tr>
<tr>
<td>or ART F688</td>
<td>Professional Practices for Visual Artists</td>
<td></td>
</tr>
<tr>
<td>ART F698</td>
<td>Non-thesis Research/Project</td>
<td>5</td>
</tr>
<tr>
<td>or ART F699</td>
<td>M.F.A. Thesis Project</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Electives in art history, humanities or philosophy</td>
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</tbody>
</table>
Courses may be chosen from the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART F624</td>
<td>Field Artists of the North</td>
<td></td>
</tr>
<tr>
<td>ART F625</td>
<td>Visual Images of the North</td>
<td></td>
</tr>
<tr>
<td>ART F663</td>
<td>Seminar in Art History</td>
<td></td>
</tr>
<tr>
<td>ART F673</td>
<td>History of the Role of the Artist</td>
<td></td>
</tr>
</tbody>
</table>

Complete at least two studio areas at the F600 level \(^3\) 42

Courses may be chosen from the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART F601</td>
<td>Ceramics</td>
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</tr>
<tr>
<td>ART F603</td>
<td>Graduate Photography</td>
<td></td>
</tr>
<tr>
<td>ART F605</td>
<td>Drawing</td>
<td></td>
</tr>
<tr>
<td>ART F607</td>
<td>Printmaking</td>
<td></td>
</tr>
<tr>
<td>ART F609</td>
<td>Metalsmithing</td>
<td></td>
</tr>
<tr>
<td>ART F611</td>
<td>Sculpture</td>
<td></td>
</tr>
<tr>
<td>ART F613</td>
<td>Painting</td>
<td></td>
</tr>
<tr>
<td>ART F619</td>
<td>Life Drawing</td>
<td></td>
</tr>
<tr>
<td>ART F633</td>
<td>Graduate Field Painting</td>
<td></td>
</tr>
<tr>
<td>ART F668</td>
<td>Alaska Native Art Studio</td>
<td></td>
</tr>
<tr>
<td>ART F671</td>
<td>Two- and Three-dimensional Computer Design</td>
<td></td>
</tr>
<tr>
<td>ART F672</td>
<td>Advanced Computer Visualization in Art</td>
<td></td>
</tr>
<tr>
<td>ART F684</td>
<td>Multimedia Theory and Practice</td>
<td></td>
</tr>
<tr>
<td>COJO F605/ART F665</td>
<td>Advanced Photography Seminar</td>
<td></td>
</tr>
</tbody>
</table>

1 Studio with two-hour oral comprehensive examination.

2 Students should seek approval of art history, humanities or philosophy elective courses from their advisor and/or committee prior to registration. Additional elective options may be available and F400 level courses may be taken with additional requirements.

3 Students should take 20 credits from their primary studio area, and 9 credits from their secondary studio area. The remaining credits should be comprised of studio credits and/or additional Mentored Teaching in Art ART F661 credits. Advisor and/or committee approval should be sought to ensure correct completion of the credit requirement.

**Note:** Students with a graduate teaching assistantship (TA) are required to be enrolled in ART F661 Mentored Teaching in Art each semester they have a TA award.

**Atmospheric Sciences**

**M.S., Ph.D. Degrees**

The field of atmospheric science covers a wide variety of disciplines involving the physical and chemical properties and processes of the atmosphere. Emerging trends in atmospheric science stress the interactions of the atmosphere with other components (i.e. land, sea ice, ocean) in the total earth system.

The UAF Geophysical Institute, the International Arctic Research Center and other university research institutes support active research programs in high-latitude atmospheric science that include faculty from biology, chemistry, physics, engineering and other departments. Current research by atmospheric sciences focuses on: atmospheric chemistry and biogeochemistry, climate modeling, cloud and aerosol physics, mesoscale modeling, numerical weather prediction and aviation weather, and upper atmosphere (stratosphere and mesosphere). In addition, scientists affiliated with the research institutes conduct research on ocean-atmosphere interactions, dynamic meteorology, micrometeorology and microclimatology, polar meteorology, radiative transfer, cryosphere-atmosphere interactions and remote sensing.

Graduate students are an integral component of this research, both in the experiments in the laboratory and the field as well as in high-performance computing. Research institutes provide excellent environments for research in atmospheric science as well as interdisciplinary research with scientists in other research areas.

Minimum Requirements for Degrees: M.S.: 30 credits; Ph.D.: 18 thesis credits

College of Natural Science and Mathematics
Department of Atmospheric Sciences (http://www.uaf.edu/asp/)
907-474-7368

**Admission Requirements**

Admission to the Department of Atmospheric Sciences generally requires a degree in a scientific discipline, one year of calculus-based physics, math through differential equations, and one semester of chemistry. Since atmospheric science is a highly interdisciplinary field, incoming students' backgrounds vary considerably. Thus, acceptance into the program is made on a case-by-case basis.

**Programs**

**Degrees**

- M.S., Atmospheric Sciences (p. 302)
- Ph.D., Atmospheric Sciences (p. 303)

**M.S., Atmospheric Sciences**

**Program Requirements**

**Minimum Requirements for Atmospheric Sciences M.S.: 30 credits**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ATM F601</td>
<td>Introduction to Atmospheric Sciences</td>
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<tr>
<td>ATM F613</td>
<td>Atmospheric Radiation</td>
<td></td>
</tr>
<tr>
<td>ATM F615</td>
<td>Cloud Physics</td>
<td></td>
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<tr>
<td>ATM F645</td>
<td>Atmospheric Dynamics</td>
<td></td>
</tr>
<tr>
<td>ATM F646</td>
<td>Atmospheric Dynamics II: Climate Dynamics</td>
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</table>

Complete one Thesis or Non-Thesis option listed below 18-24
Options

**THESIS OPTION**

<table>
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<tr>
<th>Code</th>
<th>Title</th>
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<td>ATM F699</td>
<td>Thesis - 6-12 credits</td>
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<tr>
<td>ATM F600</td>
<td>Level Courses - 6-12 credits</td>
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**NON-THESIS OPTION A**

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<td>Complete the following:</td>
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<td>ATM F698</td>
<td>Non-Thesis Research/Project</td>
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<td>ATM F600</td>
<td>Level Course</td>
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<td>ATM F600</td>
<td>Level Courses</td>
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**NON-THESIS OPTION B**

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<td>Complete the following:</td>
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<td>ATM F698</td>
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<td>Level Courses</td>
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**Ph.D., Atmospheric Sciences**

**Program Requirements**

**Minimum Requirements for Atmospheric Sciences Ph.D.: 45 credits**

<table>
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<td></td>
<td>Complete the general university requirements. (p. 295)</td>
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<td>Ph.D. Degree Requirements</td>
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<tr>
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<tr>
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<td>Atmospheric Sciences Program Requirements</td>
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<tr>
<td></td>
<td>Complete the following:</td>
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<td>ATM F601</td>
<td>Introduction to Atmospheric Sciences</td>
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<tr>
<td>ATM F613</td>
<td>Atmospheric Radiation</td>
<td></td>
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<tr>
<td>ATM F615</td>
<td>Cloud Physics</td>
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<tr>
<td>ATM F645</td>
<td>Atmospheric Dynamics</td>
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</tr>
<tr>
<td>ATM F646</td>
<td>Atmospheric Dynamics II: Climate Dynamics</td>
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</table>

|          | Complete 12 additional approved credits, 6 of which should be ATM courses | 12      |
|          | Complete minimum of 18 thesis credits     | 18      |

**Biochemistry and Neuroscience**

**Ph.D. Degree**

Biochemistry and neuroscience is an interdepartmental program administered by the Department of Chemistry and Biochemistry with research support through the Institute of Arctic Biology. A broad range of biomedical research experiences is available, including molecular and cellular neuroscience, proteomics, protein structure-function and molecular toxicology. The Arctic environment provides additional research opportunities in environmental biochemistry, adaptations and molecular genetics. Students seeking an M.S. degree in these research areas should see the M.S. chemistry with concentration in biochemistry and neuroscience degree.

UAF faculty and affiliate faculty at collaborating institutions provide a rich academic environment encompassing both research and comprehensive course offerings. Students with career interests in biotechnology, pharmaceutical sciences, environmental health, genetics and biomedicine are encouraged to apply. Students are normally accepted with financial support (fellowships, research assistantships and/or teaching assistantships) along with tuition waivers.

Minimum Requirements for Biochemistry and Neuroscience Doctorate Degree: 18 thesis credits

College of Natural Science and Mathematics
Department of Chemistry and Biochemistry (http://www.uaf.edu/chem/)
907-474-5510

**Programs Degrees**

• Ph.D., Biochemistry and Neuroscience with Biochemistry Concentration (p. 303)
• Ph.D., Biochemistry and Neuroscience with Neuroscience Concentration (p. 304)

**Ph.D., Biochemistry and Neuroscience with Biochemistry Concentration**

**Admission Requirements**

Complete the following admission requirements:

• Submit GRE General Test scores
• If English is not your native language, submit scores from both the Test of Spoken English and the Test of Written English, as well as TOEFL scores. Requests, including justification, for exceptions to this requirement should be made to the chair of the department.

**Program Requirements**

**Minimum Requirements for Biochemistry and Neuroscience Ph.D. (including core courses): 38 credits**

<table>
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<tr>
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<th>Title</th>
<th>Credits</th>
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<tr>
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<tr>
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<td>Complete the general university requirements. (p. 295)</td>
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<tr>
<td></td>
<td>Ph.D. Degree Requirements</td>
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<tr>
<td></td>
<td>Complete the Ph.D. degree requirements. (p. 292)</td>
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<tr>
<td></td>
<td>Biochemistry and Neuroscience Program Requirements</td>
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<td>CHEM F654</td>
<td>Protein Structure and Function</td>
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<tr>
<td>CHEM F657</td>
<td>Molecular Foundations of Gene Expression</td>
<td></td>
</tr>
<tr>
<td>CHEM F670</td>
<td>Cellular and Molecular Neuroscience</td>
<td></td>
</tr>
</tbody>
</table>
Biological Sciences

M.S., Ph.D. Degrees

UAF biological sciences graduate students have extraordinary opportunities to conduct independent biological research in controlled-experiment or field settings, taking advantage of Arctic, alpine and boreal environments near campus or at remote locations.

The department has close connections with the National Science Foundation taiga Long Term Ecological Research site, located about 20 miles from campus. Our students also have access to the tundra LTER site at Toolik Lake, where the UAF Institute of Arctic Biology runs a field station.

Facilities available to graduate students on the Fairbanks campus include small mammal colonies, the Large Animal Research Station, both electron and light microscope laboratories, an imaging laboratory and a greenhouse facility. Students and faculty work on systematic collections in the UA Museum of the North using a variety of approaches from traditional morphology to molecular biology.

The program has strong research emphases in Arctic plant ecophysiology, plant-animal coevolution, insect ecology (terrestrial and aquatic), bird and mammal physiological ecology, vertebrate population dynamics, biology of seabirds, molecular evolution and systematics, pollution ecology, wetland ecology, population genetics, ungulate biology and wildlife management.

Advanced degree recipients gain significant teaching experience conducting labs, and a few take primary responsibility for instruction in a course at the undergraduate level. Our graduates have pursued careers in education at the university, community college and secondary levels. Many find professional positions with state and federal resource agencies, with whom the department faculty maintain close contact.

The Department of Biology and Wildlife has approximately 100 graduate students. The atmosphere is informal and students and faculty interact frequently, not only in small-enrollment classes but also on field trips and in community and social settings.

Research assistantships are available on a competitive basis. Teaching assistantships in department courses provide excellent experience. Competitive fellowships are available through the UAF Graduate School. Applicants interested in graduate assistantships should contact the department for assistantship application forms.

Minimum Requirements for Biological Sciences Master’s and Doctorate Degrees: M.S.: 30 credits; Ph.D.: 18 thesis credits

College of Natural Science and Mathematics
Department of Biology and Wildlife (http://www.bw.uaf.edu)
907-474-7671
Programs

Degrees

- M.S., Biological Sciences (p. 305)
- Ph.D., Biological Sciences (p. 305)

M.S., Biological Sciences

Admission Requirements

Complete the admission process including the following:

- Submit scores from both the GRE General Test (required) and the GRE Subject Test in Biology (highly recommended).
- If English is not your native language, submit scores from both the Test of Spoken English and the Test of Written English, as well as TOEFL scores. Requests, including justification, for exceptions to this requirement should be made to the chair of the department.

Program Requirements

Minimum Requirements for Biological Sciences M.S.: 30 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General University Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (p. 296)</td>
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<tr>
<td></td>
<td>Master's (with Thesis) Degree Requirements</td>
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</tr>
<tr>
<td></td>
<td>Complete the master's degree requirements. (p. 298)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete and pass the departmental written and oral master's comprehensive examination</td>
<td></td>
</tr>
</tbody>
</table>

Ph.D., Biological Sciences

Admission Requirements

Complete the admission process including the following:

- Submit scores from both the GRE General Test (required) and the GRE Subject Test in Biology (required for applicants holding only a bachelor's degree; highly recommended for applicants who have already earned a master's degree).
- If English is not your native language, submit scores from both the Test of Spoken English and the Test of Written English, as well as TOEFL scores. Requests, including justification, for exceptions to this requirement should be made to the chair of the department.

Program Requirements

Minimum Requirements for Biological Sciences Ph.D.: 18 credits

<table>
<thead>
<tr>
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<tr>
<td></td>
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<td></td>
<td>Complete the general university requirements. (p. 295)</td>
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<td></td>
<td>Ph.D. Degree Requirements</td>
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</tr>
<tr>
<td></td>
<td>Complete the Ph.D. degree requirements. (p. 292)</td>
<td></td>
</tr>
</tbody>
</table>

If entering with only a bachelor’s degree, complete and pass the departmental written and oral Ph.D. qualifying examination

Complete and pass a written and oral comprehensive examination by the graduate advisory committee

In this program or in previous postbaccalaureate programs, complete course work at least equivalent to that required for the M.S. degree

For optional concentration see Wildlife Biology and Conservation (p. 364).

Business Administration

MBA Degree

The School of Management offers professional education applicable to the fields of management, finance, human resource management, international business, marketing, and scientific and technical management to individuals interested in entering industry or government.

The program prepares graduates to meet the complex problems of the technical, economic and social environment and to enable them to provide imaginative and responsible leadership to industry and government.

The UAF program recognizes that competence in the practice of management necessitates education with both breadth and depth. The graduate program is accredited by the Association to Advance Collegiate Schools of Business.

All applications will be reviewed to determine if the applicant has the required body of knowledge to begin MBA courses. Those deficient may be required to complete prerequisite modules prior to admission or prior to enrolling in specific courses.

Minimum Requirements for Business Administration MBA: 30 credits

Learn more about the master's degree in business administration (https://uaf.edu/academics/programs/masters/mba-online.php), including an overview of the program, career opportunities and more.

School of Management
907-474-4622
Masters of Business Administration (http://www.uaf.edu/som/degrees/graduate/mba/)

Programs

Degree

- MBA, Business Administration (p. 305)

MBA, Business Administration

Admission Requirements

Complete the admission process including the following:

- Applications will be reviewed on a continuous basis
- Students with a graduate degree from an accredited institution may be admitted without taking the GMAT or GRE exam.
- UAF B.B.A. graduates with an overall GPA of 3.25 or above may be admitted without taking the GMAT or GRE exam. Those with GPA between 3.25 and 2.75 must submit results of the Watson-
Glaser Critical Thinking exam for review. Those with GPA below 2.75 must submit results from the GMAT or GRE for review.

- Non-UAF applicants with a bachelor’s degree in business from an AACSB-accredited institution and an overall GPA of 3.25 or above may be admitted without taking the GMAT or GRE. Those with GPA between 3.25 and 2.75 must submit results of the Watson-Glaser Critical Thinking exam for review. Those with GPA below 2.75 must submit results from the GMAT or GRE for review.

- Applicants with non-business degrees and GPA from 4.00 to 2.75 must submit results of the Watson-Glaser Critical Thinking exam for review. Those with GPA below 2.75 must submit results from the GMAT or GRE for review.

Program Requirements

Minimum Requirements for Business Administration MBA: 30 credits

CONCENTRATIONS: STEM (P. 306), GENERAL MANAGEMENT (P. 306)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MBA F617</td>
<td>Organizational Theory for Managers</td>
<td>3</td>
</tr>
<tr>
<td>MBA F643</td>
<td>Marketing Management</td>
<td>3</td>
</tr>
<tr>
<td>MBA F675</td>
<td>Quantitative Methods for Managers</td>
<td>3</td>
</tr>
<tr>
<td>MBA F680</td>
<td>Financial Markets and Strategy</td>
<td>3</td>
</tr>
<tr>
<td>MBA F690</td>
<td>Corporate Strategy</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Complete the following capstone course:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MBA F690</td>
<td>Corporate Strategy</td>
</tr>
</tbody>
</table>

Complete one of the following concentrations: 15

**STEM**

General Management

1. Complete the following MBA core courses after any required modules are completed.
2. Both concentrations may be earned for degree; however, courses used in one concentration may not be used to meet requirements in the other concentration.

Students who earn grades of two Cs, one D, or one F in courses that are part of their MBA program will no longer be in good standing in the MBA program even if their cumulative GPA remains at or above 3.0. MBA students who are not in good standing will be subject to review and may be dismissed by the MBA committee. Students may not use more than two F600-level courses with C grades on their Advancement to Candidacy application. An A or B grade must be earned in F400-level courses.

Students with no prior course work in business subjects may be required to complete up to seven self-study modules prior to beginning courses. Contact the SOM MBA program for more information. These are not UAF courses and will not count toward the 30 required program credits.

### CONCENTRATIONS

**STEM**

This concentration may require some courses to be taken in residence.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MBA F605</td>
<td>Contemporary Topics in Accounting</td>
<td>9</td>
</tr>
<tr>
<td>MBA F607</td>
<td>Human Resources Management</td>
<td></td>
</tr>
<tr>
<td>MBA F624</td>
<td>Controllership</td>
<td></td>
</tr>
<tr>
<td>MBA F627</td>
<td>Business Law and Ethics</td>
<td></td>
</tr>
<tr>
<td>MBA F632</td>
<td>Project Management</td>
<td></td>
</tr>
<tr>
<td>MBA F642</td>
<td>Economics of Environmental and Business Sustainability</td>
<td></td>
</tr>
<tr>
<td>MBA F665</td>
<td>Strategic Collaboration</td>
<td></td>
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<tr>
<td>MBA F673</td>
<td>Innovation Management</td>
<td></td>
</tr>
<tr>
<td>MBA F674</td>
<td>New Venture Development</td>
<td></td>
</tr>
<tr>
<td>MBA F682</td>
<td>Financial Statement Analysis</td>
<td></td>
</tr>
<tr>
<td>MBA F683</td>
<td>Advanced Topics in Marketing</td>
<td></td>
</tr>
<tr>
<td>MBA F691</td>
<td>Advanced Topics in Business</td>
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</table>

Complete two approved SOM electives at the F400 or F600 level: 6

**General Management**

Complete three of the following: 9

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>MBA F605</td>
<td>Contemporary Topics in Accounting</td>
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</tr>
<tr>
<td>MBA F607</td>
<td>Human Resources Management</td>
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<tr>
<td>MBA F624</td>
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<td>MBA F627</td>
<td>Business Law and Ethics</td>
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<td>MBA F632</td>
<td>Project Management</td>
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<tr>
<td>MBA F642</td>
<td>Economics of Environmental and Business Sustainability</td>
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<td>MBA F665</td>
<td>Strategic Collaboration</td>
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<tr>
<td>MBA F682</td>
<td>Financial Statement Analysis</td>
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<tr>
<td>MBA F683</td>
<td>Advanced Topics in Marketing</td>
<td></td>
</tr>
<tr>
<td>MBA F691</td>
<td>Advanced Topics in Business</td>
<td></td>
</tr>
</tbody>
</table>

Complete two approved SOM electives at the F400 or F600 level: 6

### Business Continuity Graduate Certificate

The business continuity graduate certificate provides students an in-depth overview of those processes required to build resilience and provide for disaster recovery within both public and private entities. Planning and preparing for the adverse effects of a major crisis brought on by natural disasters, cyber threats and even common emergencies are key to the survival of an organization post-event. Business continuity is an important component in having a successful business, and as such, many organizations are adapting their employee’s roles to include continuity components. This certificate will help students understand those components, teach them how to develop a plan, and cover best practices to survive and thrive despite a crisis or disaster. This knowledge, in turn, better prepares employees and businesses for any business disruption that may occur.

Minimum Requirements for Business Continuity Graduate Certificate: 12 credits

**School of Management**

Department of Homeland Security and Emergency Management (https://www.uaf.edu/som/degrees/certificates/)

907-474-7461
Programs

Graduate Certificate

• Graduate Certificate, Business Continuity (p. 307)

Graduate Certificate, Business Continuity

Admission Requirements

Admission Requirements:

• Students must have a completed baccalaureate degree.
• If the degree is in a non-security or business continuity-related field and has a 3.0 or higher cumulative GPA, students will be required to start with one 400-level course, that is an elective option for the degree.
• Students who have already obtained a graduate degree will not be required to complete an entrance exam or complete a 400-level course first.
• Students with a baccalaureate degree with a cumulative GPA of 3.0 or higher in a related field will not have any additional testing or entry course requirements.
• Students with a cumulative GPA between 3.0 and 2.75, regardless of the field of study, will be required to complete the Watson Glaser Critical Thinking Exam.
• Students with a cumulative GPA below 2.75, will be required to submit results from either the GRE or GMAT.

Program Requirements

Minimum Requirements for Business Continuity Graduate Certificate: 12 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tr>
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<td>General University Requirements</td>
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<tr>
<td></td>
<td>Complete the general university requirements. (p. 294)</td>
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<tr>
<td></td>
<td>Graduate Certificate Requirements</td>
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<tr>
<td></td>
<td>Complete the graduate certificate requirements. (p. 294)</td>
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<tr>
<td></td>
<td>Business Continuity Program Requirements</td>
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<tr>
<td>HSEM F645</td>
<td>Crisis Management</td>
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<tr>
<td>HSEM F646</td>
<td>Business Continuity and Risk Assessment</td>
<td>3</td>
</tr>
<tr>
<td>HSEM F632</td>
<td>Project Management</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Complete one of the following:</td>
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<tr>
<td>HSEM F445</td>
<td>Business Continuity and Crisis Management ¹</td>
<td></td>
</tr>
<tr>
<td>HSEM F417</td>
<td>Cybersecurity Resiliency</td>
<td></td>
</tr>
<tr>
<td>HSEM F647</td>
<td>Business Continuity Audit</td>
<td></td>
</tr>
</tbody>
</table>

¹ If no prior experience in business continuity, HSEM F445 is a required prerequisite for this certificate.

Chemistry

M.S. Degree

Graduates in chemistry qualify for employment in many fields as teachers of chemistry; supervisors in industry; technical sales personnel; research chemists in federal, state, municipal, academic or industrial laboratories; in pre-medicine; and as laboratory technicians. The rapid introduction of chemical techniques in all branches of commerce and the creation of many synthetic products have caused substantial growth in the profession. In addition to the traditional employment opportunities in chemistry, well-qualified graduates find positions in the fields of environmental sciences, oceanography, biochemistry, neuroscience, and related interdisciplinary fields. Many recipients of chemistry master’s degrees continue their education to obtain Ph.D. degrees at UAF or other universities. The M.S. program also has concentrations in the departmental focal areas of biochemistry and neuroscience and environmental chemistry. The department also offers Ph.D. degrees in each of these areas. See the biochemistry and neuroscience (p. 303) and environmental chemistry (p. 333) Ph.D. programs.

The department offers well-equipped laboratories housing instrumentation for nuclear magnetic resonance spectrometry, infrared, ultraviolet/visible and atomic absorption spectrophotometry, mass spectrometry, gas chromatography, amino acid analysis and HPLC. Additional equipment for gas chromatography/mass spectrometry, X-ray diffractometry, electron microscopy and liquid scintillating counters is available in cooperation with other UAF departments and institutes.

Minimum Requirements for Chemistry Masters Degree: 30 credits

College of Natural Science and Mathematics
Department of Chemistry and Biochemistry (http://www.uaf.edu/chem/)
907-474-5510

Programs

Degrees

• M.S., Chemistry (p. 307)
Civil Engineering

M.S. Degree

Civil engineers plan, design and supervise the construction of facilities essential to modern life in both the public and private sectors. These facilities vary widely in nature, size and scope: space launching facilities, offshore structures, bridges, buildings, tunnels, highways, transit systems, dams, airports, irrigation projects, treatment and distribution facilities for water and collection and treatment facilities for wastewater.

Civil engineers use sophisticated technology and employ computer-aided engineering during project phases of design, construction, project scheduling and cost control. Civil engineers are problem solvers involved in community development and improvement. They meet the challenges of pollution, deteriorating infrastructure, traffic congestion, energy needs, floods, earthquakes, urban redevelopment and community planning. The opportunity for creativity is unlimited.

The civil engineering program at UAF began in 1922, had its first graduate in 1931 and since has graduated more than 800 men and women. Many of these graduates work in Alaska’s cities, towns and villages in a wide range of responsible positions. More than 60 percent of Alaska’s professional engineers practice in civil engineering. The UAF civil engineering program has been accredited since 1940 by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology. All engineering programs in the department give special attention to problems of Northern regions.

In addition to general civil engineering courses, specialties are available in Arctic engineering, transportation, geotechnical, structures, water resources, hydrology, and design and construction management. Many courses emphasize principles of analysis, planning and engineering design in northern regions.

A master’s degree program can include courses in environmental engineering (ENVE), engineering management (ESM) and other areas. An advanced degree in water and environmental science, administered within the Civil Engineering Department, is available.

Minimum Requirements for Civil Engineering Masters Degree: 30 credits

Programs

Degrees

• M.S., Civil Engineering (p. 308)

M.S., Civil Engineering

Admission Requirements

Complete the following admission requirements:

• Complete a bachelor’s degree in engineering or natural sciences.¹
• Submit GRE scores.
• International students must complete the TOEFL with a score of 575 or better.

OPTIONAL CONCENTRATIONS

Biochemistry and Neuroscience

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td></td>
<td>Complete 9 credits from the following list of core courses</td>
<td>9</td>
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<tr>
<td>CHEM F654</td>
<td>Protein Structure and Function</td>
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<tr>
<td>CHEM F657</td>
<td>Molecular Foundations of Gene Expression</td>
<td></td>
</tr>
<tr>
<td>CHEM F670</td>
<td>Cellular and Molecular Neuroscience</td>
<td></td>
</tr>
<tr>
<td>CHEM F674</td>
<td>Membrane Biochemistry and Biophysics</td>
<td></td>
</tr>
<tr>
<td>CHEM F675</td>
<td>Cellular Signaling</td>
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</table>

Environmental Chemistry

<table>
<thead>
<tr>
<th>Code</th>
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<tr>
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<td>Complete 6 credits from the following list of core courses:</td>
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<tr>
<td>CHEM F606</td>
<td>Atmospheric Chemistry</td>
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<tr>
<td>CHEM F609</td>
<td>Aquatic and Environmental Geochemistry</td>
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<tr>
<td>CHEM F631</td>
<td>Environmental Fate and Transport</td>
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</tr>
<tr>
<td>CHEM F655</td>
<td>Environmental Toxicology</td>
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</tbody>
</table>

SEE BIOCHEMISTRY AND NEUROSCIENCE (P. 303).
SEE ENVIRONMENTAL CHEMISTRY (P. 333).

¹ Students in the Biochemistry and Neuroscience concentration should take Biochemical and Molecular Biology Seminar and students in Environmental Chemistry concentration should take Research Presentation Techniques.

² The minimum credits required is 30. The required M.S. course work above represents 18 credits. The minimum number of thesis credits required is 6. The remaining 6 credits can either be thesis credits or courses that are F400-level or higher.

1
2
CONCENTRATIONS:

Arctic Engineering

Engineers M.S. Degree: 30 credits

Minimum Requirements for Civil Engineering Program Requirements

Compare the general university requirements. (p. 296)

Complete the master's degree requirements. (p. 296)

Civil Engineering Program Requirements

Complete a thesis or project

Complete comprehensive exam

Complete one from the following concentrations

Arctic Engineering

Environmental Engineering

Engineering Design and Construction

Geotechnical Engineering

Structural Engineering

Transportation Engineering

Water Resources Engineering

CONCENTRATIONS

Arctic Engineering

Credit Requirements

Complete the following:

CE F603 Arctic Engineering 3

CE F624 Permafrost Engineering 3

CE F682 Ice Engineering 3

or GEOS F615 Sea Ice

Approved electives (6 credits for thesis; 12 credits for project)

Recommended electives include: CE F422, CE F601, CE F625, CE F628, CE F635, CE F684, CE F685, MATH F460 and MATH F615.

ENVIROMENTAL ENGINEERING

Complete the following:

CE F601 Engineering Research Communication 3

ENVE F641 Aquatic Chemistry 3

or CHEM F605 Aquatic Chemistry

ENVE F645 Unit Processes: Chemical and Physical 3

ENVE F647 Biotechnology 3

Approved electives (9 credits for thesis; 15 credits for project)

Recommended electives include: BIOL F657, CE F603, CE F663, CE F684, CHEM F609, CHEM F631, CHEM F655, ENVE F642, ENVE F643, ENVE F644, ENVE F646, ENVE F649, ENVE F652 and CE F658.

Geotechnical Engineering

Complete 15 credits from the following:

CE F605 Pavement Design 15

CE F622 Foundations and Retaining Structures

CE F624 Permafrost Engineering

CE F625 Soil Stabilization and Embankment Design

CE F627 Geotechnical Earthquake Engineering

CE F628 Unsaturated Soils Mechanics

CE F633 Theory of Elastic Stability
Communication, Professional

M.A. Degree

The communication program prepares students to handle the challenges of communicating effectively and ethically in a rapidly changing world characterized by diversity in gender, cultural background and belief.

The M.A. in professional communication provides advanced education for individuals in or pursuing communication-related careers in public/nonprofit organizations, media organizations, health care organizations or higher education. Students take courses that focus on organizational communication theory and practices.

The program is both theoretically and pragmatically oriented to prepare students for the professional workplace or for doctoral study in organizations.

Minimum Requirements for Professional Communication M.A. Degree: 30-34 credits

College of Liberal Arts
Department of Communication and Journalism (http://www.uaf.edu/cojo/)
907-474-6591

Programs

Degree

• M.A., Communication, Professional (p. 310)

M.A., Communication, Professional

Admission Requirements

Complete the following additional admission requirement:

• Submit academic writing sample.

Program Requirements

Minimum Requirements for Professional Communications M.A. Degree: 30-34 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
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<td></td>
<td>Master's Degree Requirements</td>
<td></td>
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<tr>
<td></td>
<td>Professional Communication Program Requirements</td>
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</tr>
</tbody>
</table>

See Engineering (p. 331) for Ph.D. program.

See Water and Environmental Science (p. 362).
Communication and Diversity in the Professional World 3

Thesis 6

or Non-thesis Research/Project

Electives

Complete two from the following: 1

COJO F622 Interpersonal Interaction
COJO F631 Teambuilding
COJO F635 Organizational Culture and Communication
COJO F642 Health Communication
COJO F682 Seminar in Communication

Teaching assistants complete the following: 1-4

COJO F661 Mentored Teaching in Communication 2

1 Students may take F400- and F600-level courses in art, education, English, journalism, communication, marketing, business administration, and Arctic and Northern studies as well as graduate-level independent studies to fulfill 6 credits of the elective requirement, if approved by the student’s committee. Students will also be able to apply up to 6 credits of appropriate graduate-level course work from other universities in the elective area if approved by the student’s committee.

2 This 1-credit course may be taken up to four times.

Note: A maximum of 6 credits of approved F400-level courses may be included in the 30-34 credit requirement.

Note: The comprehensive examination is to be taken no later than the student’s fourth semester of work.

Computer Science

M.S. Degree

Computer science is the study of information handling and its application to the problems of the world. Computing is widely used in support of activities in science, engineering, business, law, medicine, education and the social sciences.

The M.S. degree follows the recommendations of the Association for Computing Machinery and the Institute for Electrical and Electronic Engineers. The program provides breadth and depth in course work and culminates with a major unifying project. This program is available to students who have completed a B.S. degree in computer science at most institutions. Students from other universities who have completed a substantial portion of a bachelor’s level computer science program may be admitted to the M.S. program. In such cases, undergraduate courses may be required to remedy deficiencies.

For admission to the M.S. computer science program, the GRE general and computer science subject exam is required.

Minimum Requirements for Computer Science Master’s Degree: 30 credits

Learn more about the bachelor’s/master’s degree in computer science (https://uaf.edu/academics/programs/bachelors/computer-science-bs-ms.php), including an overview of the program, career opportunities and more.

College of Engineering and Mines

Department of Computer Science (http://www.cs.uaf.edu)
907-474-2777

Programs

Degree

- M.S., Computer Science (p. 311)
- B.S./M.S., Computer Science (p. 209)

M.S., Computer Science

Admission Requirements

Complete the UAF admission process including the following:

1. Submit GRE general and computer science subject exam scores.
2. For teaching assistantship consideration, foreign applicants whose native language is not English must submit a TOEFL score of at least 600.
3. The department gives preference to applicants who also submit results of the Test of Spoken English.

Program Requirements

Minimum Requirements for Computer Science M.S.: 30 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>CS F600</td>
<td>Professional Software Development</td>
<td>4</td>
</tr>
<tr>
<td>CS F601</td>
<td>Algorithms, Architecture and Languages</td>
<td>4</td>
</tr>
<tr>
<td>CS F690</td>
<td>Graduate Seminar and Project</td>
<td>3</td>
</tr>
<tr>
<td>CS F691</td>
<td>Graduate Seminar and Project</td>
<td>3</td>
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<tr>
<td>Approved electives</td>
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</table>

Counseling

M.Ed. Degree

The University of Alaska graduate counseling program prepares students to become culturally responsive, effective counseling practitioners through course work and supervised internship experiences that emphasize an ecological perspective. Students who complete the school counseling track, a 48-credit-hour program, are eligible to be certified as school counselors in Alaska. Students who complete the clinical mental health counseling track, a 60-credit-hour program, are eligible for licensure as professional counselors with additional post-degree requirements. Students who complete this track are eligible to work in community and mental health agencies or as private clinicians once licensed. Students who complete either program track through distance education must complete a summer-intensive during COUN F674 (https://catalog.uaf.edu/search/?P=COUN%20F674) on the Fairbanks campus.

College of Engineering and Mines
The Council for Accreditation of Counseling and Related Educational Programs, a specialized accrediting body recognized by the Council for Higher Education Accreditation, has granted accreditation to the following programs in the UAF School of Education counseling program: clinical mental health counseling (M.Ed.) and school counseling (M.Ed.).

Minimum Requirements for Counseling Master’s Degree: 48-60 credits
School Counselor certification: 39-42 credits

Learn more about the master’s degree in counseling (https://uaf.edu/academics/programs/masters/school-counseling.php), including an overview of the program, career opportunities and more.

School of Education (http://www.uaf.edu/educ/graduate/)
907-474-7341

Programs
Degree
• M.Ed., Counseling (p. 312)

Certification
• School Counselor Certification Program (p. 313)

M.Ed., Counseling
Overview
M.Ed. Degree
The University of Alaska Fairbanks graduate counseling program prepares students to become culturally responsive, effective counseling practitioners through course work and supervised internship experiences that emphasize an ecological perspective. Students who complete the school counseling track, a 48-credit-hour program, are eligible to be certified as school counselors in Alaska. Students who complete the clinical mental health counseling track, a 60-credit-hour program, are eligible for licensure as professional counselors with additional post-degree requirements. Students who complete this track are eligible to work in community and mental health agencies or as private clinicians once licensed.

The Council for Accreditation of Counseling and Related Educational Programs, a specialized accrediting body recognized by the Council for Higher Education Accreditation, has granted accreditation to the following programs in the UAF School of Education counseling program: clinical mental health counseling (M.Ed.) and school counseling (M.Ed.).

School of Education (http://www.uaf.edu/educ/graduate/)
907-474-7341

Admission Requirements
Complete the following admission requirements:

1. Application deadline: March 1 for admission to the following fall semester, Oct. 1 for admission to the following spring semester.
2. Application requires a bachelor’s degree preferably in a human service area such as education, social work, psychology, human services, etc. Graduates from other undergraduate majors, who have experience in the human service field or demonstrated motivation to enter the field of counseling, may also apply.
3. Applicants must have a GPA of 3.0 or higher in their undergraduate degree or take the Graduate Record Exam.
4. Statement of academic goals addressing applicant’s motivations, personal characteristics, experience, education and intentions for earning the counseling degree.
5. Professional resume including education, work, volunteer or life experience relevant to the field of counseling.
6. Three letters of references from professional, academic or character sources.
7. All applicants will be required to interview with the counseling faculty as part of the admissions process.

Additional requirements:
1. Submit a disclosure statement upon admission to the program. Resubmit annually.
2. Submit a national-level criminal background check through the Federal Bureau of Investigation (http://www.fbi.gov/about-us/cjis/identity-history-summary-checks/) prior to seeing clients during COUN F634P.
3. Complete internship placements appropriate to the student’s declared area of interest.
4. Complete background check procedure required by the school or clinical mental health field practicum or internship placement. The procedure varies depending on placement.
5. Pass a comprehensive exam.

Program Requirements
Minimum Requirements for Counseling Masters Degree: 48-60 credits
CONCENTRATIONS: SCHOOL COUNSELING (P. 313), K-12 SCHOOL COUNSELING (P. 313), CLINICAL MENTAL HEALTH (P. 313), CLINICAL MENTAL HEALTH AND SCHOOL COUNSELING (P. 313), CLINICAL MENTAL HEALTH AND K-12 SCHOOL COUNSELING (P. 313)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>COUN F601</td>
<td>Research in Counseling and Educational Settings</td>
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<tr>
<td>COUN F615</td>
<td>Foundations of Counseling</td>
<td>3</td>
</tr>
<tr>
<td>COUN F623</td>
<td>Counseling Theories and Applications I</td>
<td>3</td>
</tr>
<tr>
<td>COUN F627</td>
<td>Developmental Interventions</td>
<td>3</td>
</tr>
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<td>COUN F628</td>
<td>Child and Adolescent Development</td>
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</tr>
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<td>COUN F632</td>
<td>Career Development</td>
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<td>COUN F630</td>
<td>Appraisal for Counselors</td>
<td>3</td>
</tr>
<tr>
<td>COUN F635</td>
<td>Field Practicum</td>
<td>3</td>
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<tr>
<td>COUN F636</td>
<td>Internship 1</td>
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<tr>
<td>COUN F647</td>
<td>Professional Ethics</td>
<td>3</td>
</tr>
<tr>
<td>COUN F660</td>
<td>Multicultural Counseling</td>
<td>3</td>
</tr>
</tbody>
</table>

312  M.Ed., Counseling
COUN F674  Group Counseling  3
COUN F686  Internship II  1  3
Complete 3-6 credits from the following  3-6
  COUN F698  Non-thesis Research/Project  2
  COUN F699  Thesis
Other department approved electives

Concentrations
Complete one from the following concentrations:  3-30
  School Counseling (elementary or secondary)
  K-12 School Counseling (elementary and secondary)
  Clinical Mental Health

1  Additional fee required. Charges are added to fee statements each semester.
2  or department-approved elective.

Concentrations
School Counseling

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tbody>
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<td>COUN F617P</td>
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<tr>
<td>or COUN F634P</td>
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<tr>
<td>COUN F646</td>
<td>School Counseling</td>
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K-12 School Counseling

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<tr>
<td>or COUN F634P</td>
<td>Practicum</td>
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<tr>
<td>COUN F646</td>
<td>School Counseling</td>
<td>3</td>
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<tr>
<td>COUN F687</td>
<td>Internship III  1</td>
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</table>

1  Additional fee required. Charges are added to fee statements each semester.

Clinical Mental Health

<table>
<thead>
<tr>
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<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>COUN F629</td>
<td>Counseling Interventions for Adults</td>
<td>3</td>
</tr>
<tr>
<td>COUN F634P</td>
<td>Practicum</td>
<td>3</td>
</tr>
<tr>
<td>COUN F636</td>
<td>Internship I  1</td>
<td>3</td>
</tr>
<tr>
<td>COUN F638</td>
<td>Adult Development</td>
<td>3</td>
</tr>
<tr>
<td>COUN F646</td>
<td>School Counseling</td>
<td>3</td>
</tr>
<tr>
<td>COUN F650</td>
<td>Multicultural Psychopathology</td>
<td>3</td>
</tr>
<tr>
<td>COUN F651</td>
<td>Counseling for Addictions</td>
<td>3</td>
</tr>
<tr>
<td>COUN F666</td>
<td>Family and Couples Counseling</td>
<td>3</td>
</tr>
<tr>
<td>COUN F686</td>
<td>Internship II  1</td>
<td>3</td>
</tr>
</tbody>
</table>

1  Additional fee required. Charges are added to fee statements each semester.

Note: Courses assigned by the student’s graduate committee to remove deficiencies will not be allowed as part of the graduate program.

School Counselor Certification Program

Overview
Graduate Certificate
The school counselor certification program prepares graduates to become certified elementary, secondary or K-12 school counselors. Applicants must currently hold a master’s degree or higher, preferably in a human services area. Graduates from other majors who have experience in the human service field or who have demonstrated motivation to enter the field of school counseling may also apply.

Transfer credit from previous graduate degrees may satisfy program requirements. Faculty members in the UAF counseling program determine which program requirements have been met. A course of study is designed for each admitted student.

Those wishing to become certified school counselors but who do not have a master’s degree or higher will complete the Master of Education in school counseling.

Minimum Requirements for School Counselor Graduate Certificate: 39-42 credits

School of Education (http://www.uaf.edu/educ/graduate/)

COUN F629  Counseling Interventions for Adults  3
COUN F634P | Practicum                   | 3       |
COUN F636  | Internship I  1              | 3       |

CLINICAL MENTAL HEALTH AND K-12 SCHOOL COUNSELING

<table>
<thead>
<tr>
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<tr>
<td>COUN F629</td>
<td>Counseling Interventions for Adults</td>
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</tr>
<tr>
<td>COUN F634P</td>
<td>Practicum</td>
<td>3</td>
</tr>
<tr>
<td>COUN F636</td>
<td>Internship I  1</td>
<td>3</td>
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</tbody>
</table>
Admission Requirements

Complete the following admission requirements:

• Application to the school counselor certification program follows the same admission requirements and procedures as for the M.Ed. in counseling.
• Application requires a master’s degree or higher preferably in a human service area such as education, social work, psychology, human services, etc. Graduates from other majors who have experience in the human service field or who have demonstrated motivation to enter the field of school counseling may also apply.

Additional requirements:

• Submit a disclosure statement upon admission to the program. Resubmit annually.
• Submit a national-level criminal background check through the Federal Bureau of Investigation (http://www.fbi.gov/about-us/cjis/identity-history-summary-checks/) prior to seeing clients during COUN F634P.
• Complete internship placements appropriate to the student’s declared area of interest.
• Complete background check procedure required by the school internship placement. The procedure varies depending on placement.

Program Requirements

Minimum Requirements for School Counselor Graduate Certificate: 39-42 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<td>Complete the general university requirements. (p. 296)</td>
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<tr>
<td>Graduate Certificate Requirements</td>
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<tr>
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<tr>
<td>School Counselor Program Requirements</td>
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<tr>
<td>Complete the following program requirements for certification in one level (elementary or secondary):</td>
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<tr>
<td>COUN F615</td>
<td>Foundations of Counseling</td>
<td>3</td>
</tr>
<tr>
<td>COUN F617P</td>
<td>Pre-practicum</td>
<td>3</td>
</tr>
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<td></td>
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<tr>
<td>COUN F623</td>
<td>Counseling Theories and Applications I</td>
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<tr>
<td>COUN F636</td>
<td>Internship I</td>
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<td>COUN F646</td>
<td>School Counseling</td>
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<tr>
<td>COUN F647</td>
<td>Professional Ethics</td>
<td>3</td>
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<tr>
<td>COUN F660</td>
<td>Multicultural Counseling</td>
<td>3</td>
</tr>
<tr>
<td>COUN F674</td>
<td>Group Counseling</td>
<td>3</td>
</tr>
<tr>
<td>COUN F686</td>
<td>Internship II</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete the following optional class for K12 school counseling certification (elementary and secondary) 3

COUN F687 Internship III

1 Additional fee required. Charges are added to fee statements each semester.

Cybersecurity Management

Graduate Certificate

The cybersecurity management graduate certificate is designed for the student who desires an in-depth overview of the important topics in providing for the cybersecurity-oriented aspects of managing cyber-related operations. The certificate provides relevant and cutting-edge education specific to the needs of individuals and their associated organizations in providing the technical capability to prevent, plan for and recover from technological incidents. Cybersecurity, a very dynamic field, requires lifelong learning. This certificate program serves as continuing professional education (CPE) for many professional certifications today. Recipients of the cybersecurity management graduate certificate are better prepared for the challenges of the cybersecurity workforce today and the future.

Minimum Requirements for Cybersecurity Management Graduate Certificate: 12 credits

School of Management
Department of Homeland Security and Emergency Management (https://www.uaf.edu/som/degrees/certificates/)
907-474-7461

Programs

Graduate Certificate

• Graduate Certificate, Cybersecurity Management (p. 314)

Graduate Certificate, Cybersecurity Management

Admission Requirements

Complete the following admission requirements:

• Students must have a completed baccalaureate degree.
• Students must possess either prior education specific to IT, networking or cybersecurity-related work experience or a combination of both with the approval and review of the program director to enter the cybersecurity management or associated concentration within the MSDM.
• If the degree is in a non-security or non-cybersecurity-related field and the student has a 3.0 or higher cumulative GPA, students will be required to start with one 400-level course, that is an elective option for the degree.
• Students who have already obtained a graduate degree will not be required to complete an entrance exam or complete a 400-level course first.
• Students with a baccalaureate degree with a cumulative GPA of 3.0 or higher in a related field will not have any additional testing or entry course requirements.
• Students with a cumulative GPA between 3.0 and 2.75, regardless of the field of study, will be required to complete the Watson Glaser Critical Thinking Exam.
• Students with a cumulative GPA below 2.75, will be required to submit results from either the GRE or GMAT.

Program Requirements
Minimum Requirements for Cybersecurity Graduate Certificate: 12 credits

<table>
<thead>
<tr>
<th>Code</th>
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<th>Credits</th>
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<tbody>
<tr>
<td></td>
<td><strong>General University Requirements</strong></td>
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<tr>
<td></td>
<td>Complete the general university requirements.</td>
<td><a href="http://www.294">www.294</a></td>
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<tr>
<td></td>
<td>(p. 294)</td>
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<tr>
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<td><strong>Graduate Certificate Requirements</strong></td>
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<td></td>
<td>(p. 294)</td>
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<td></td>
<td><strong>Cybersecurity Program Requirements</strong></td>
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<tr>
<td>HSEM F641</td>
<td>Information Assurance and Risk Assessment</td>
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<tr>
<td>HSEM F642</td>
<td>Cyber Threats and Vulnerabilities</td>
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<tr>
<td>HSEM F643</td>
<td>Perspectives in Addressing Cybersecurity &amp; Critical Infrastructure</td>
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<td>Choose one of the following:</td>
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<td>HSEM F415</td>
<td>Cybersecurity in the 21st Century: Technology and Ethics</td>
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<tr>
<td>HSEM F416</td>
<td>Cybersecurity Management</td>
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<tr>
<td>HSEM F417</td>
<td>Cybersecurity Resiliency</td>
<td></td>
</tr>
<tr>
<td>HSEM F418</td>
<td>Cybercrime, Fraud and Law</td>
<td></td>
</tr>
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</table>

Education
M.Ed. Degree and Postbaccalaureate Licensures

The University of Alaska Fairbanks complies fully with the institutional reporting requirements mandated in Title II of the Higher Education Act Amendments of 1998. Please contact the School of Education for a copy of the complete report.

The UAF School of Education prepares students from across Alaska, as well as from other states and nations, to work in urban and rural Alaska and to work with multicultural and minority — especially Alaska Native — students. To fulfill our commitment to enhancing educational opportunities for the state’s rural and Native populations, faculty actively and knowledgeably utilize educational technology to deliver all School of Education programs to students in most areas of the state.

The School of Education offers programs in elementary education, secondary education, counseling, curriculum and instruction, and reading at both the postbaccalaureate and Master of Education degree levels. During their internships, candidates pay an additional fee. Charges are added to fee statements each semester.

The UAF School of Education is approved by the Alaska Department of Education and Early Development to recommend its students for Alaska licensure as elementary and secondary teachers and school counselors. Courses are available on-site and by distance delivery through the Kuskokwim, Bristol Bay, Interior Alaska, Chukchi, and Northwest campuses, as well as on the Fairbanks campus. Faculty research in cross-cultural studies, curriculum and instruction, language and literacy, and small rural schools support the mission of the School of Education.

Priority for enrollment in field-based courses is given to rural students formally admitted to degree and licensure programs. All inquiries should be addressed to one of the rural campuses or to the School of Education’s Student Services office.

Candidates for all School of Education programs are required to have a laptop computer and iPad. This computer may be of any type but enable candidates to meet School of Education requirements. Laptop and iPad requirements and purchase information can be viewed here (https://sites.google.com/a/alaska.edu/soe-technology/home/tech-requirements/). If you have questions about how a laptop or iPad purchase can fit into your financial aid package, please contact the UAF Financial Aid Office.

LICENSURE INFORMATION

UAF education programs are approved by the Alaska State Board of Education standards and accredited by the National Council for the Accreditation of Teacher Education. For information about these programs contact one of the School of Education academic advisors.

The State of Alaska requires that all initial applicants for a teaching certificate provide evidence of passing Alaska qualifying scores on the Praxis I Academic Skills Assessment, including the Pre-Professional Skills Test and/or the Computer-Based Academic Skills Assessment. For additional information, visit the website of the State Department of Education and Early Development (http://www.eed.state.ak.us/TeacherCertification/).

Minimum Requirements for Art K-12 Licensure: 34 credits;
Elementary Postbaccalaureate Licensure: 39 credits;
Secondary Postbaccalaureate Licensure: 31-37 credits;
Special Education K-12 Postbaccalaureate Licensure Program Certificate of Completion: 24-27 credits;
Master of Education: 30-39 credits

Learn more about the graduate certificate in school counseling (https://uaf.edu/academics/programs/masters/school-counseling-grad-cert.php), including an overview of the program, career opportunities and more.
Learn more about the master's degree in education (https://uaf.edu/academics/programs/masters/elementary-education.php), including an overview of the program, career opportunities and more.
Learn more about the online master's degree in online innovation and design (https://uaf.edu/academics/programs/masters/online-innovation-design.php), (https://uaf.edu/academics/programs/masters/secondary-education.php) including an overview of the program, career opportunities and more.
Learn more about the master's degree in special education (https://uaf.edu/academics/programs/masters/special-education.php) including an overview of the program, career opportunities and more.

School of Education (http://www.uaf.edu/soe/)
Programs
Licensures
- Art K-12 Licensure Program toward M.Ed., Secondary Education (p. 316)
- Elementary (K-8) Postbaccalaureate Licensure Program (p. 317)
- Secondary Postbaccalaureate Licensure Program toward M.Ed., Secondary Education (p. 325)
- Special Education K-12 Postbaccalaureate Certificate of Completion (p. 327)

Degrees
- Master of Education in Counseling (p. 318)
- Master of Education in People, Place and Pedagogy (p. 320) — Admission to this program is currently suspended.
- Master of Education in Elementary Education (p. 318)
- Master of Education in Second Language Acquisition, Bilingual Education and Literacy (p. 321) — Admission to this program is currently suspended.
- Master of Education in Online Innovation and Design (p. 319) — Admission to this program is currently suspended.
- Master of Education in Secondary Education (p. 321)
- Master of Education in Special Education (p. 323)
- Interdisciplinary Ph.D. (p. 318)

Certification
- School Counselor Certification Program (p. 313)

Art K-12 Licensure Program toward M.Ed., Secondary Education
Offered on the Fairbanks campus only, this is an intensive, classroom-based K-12 art licensure program (34 credits) that prepares postbaccalaureate candidates for K-12 teaching positions. The program is specifically designed to prepare candidates to teach in multicultural settings in Alaska. The content will specifically identify and discuss current issues of art education and applying Alaska content/performance standards and frameworks as well as national standards for art education.

Candidates who apply as graduate applicants may simultaneously pursue teacher licensure and the M.Ed. secondary education degree. Significant additional course work will be required. (See requirements for M.Ed. secondary education (p. 321).)

At the end of the program, if students have successfully met all of the program requirements, they will be eligible to apply for an Alaska initial teaching license and will receive certificates of completion from UAF.

Candidates who enter the K-12 art licensure program are required to have use of/own a laptop computer before they begin their internships in the fall semester of their professional year.

For program options and professional field experiences information, please see information listed in the catalog for the secondary postbaccalaureate licensure program (p. 325).

Admission to the K-12 art licensure program toward M.Ed. in secondary education includes meeting requirements of the UAF Graduate School and the School of Education. Candidates take five of the licensure courses at the F600 level.

For information on the application process, acceptance to the program and professional field experience, please refer to the secondary postbaccalaureate licensure program toward M.Ed. (p. 325) section.

School of Education (http://www.uaf.edu/educ/graduate/)
907-474-7341

Admission Requirements
Admission Process and Requirements
Applicants will follow the admission process and requirements listed in the catalog for the secondary postbaccalaureate licensure program (p. 325) program, with the exception that applicants must have a bachelor's degree in art from an accredited university or college. Applicants should be aware that additional content course work may be required, depending on content of degree. Additional course work, as determined by the appropriate departments, may mean a delay of program admission until requirements are fulfilled.

Program Requirements
Minimum Requirements for Art K-12 Licensure Program Toward M.Ed., Secondary Education License: 34 credits

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<td>Elementary Internship</td>
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<td>ED F649</td>
<td>Elementary Art Methods</td>
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<td>EDSC F415</td>
<td>Foundations of Modern Educational Practice</td>
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<tr>
<td>or EDSC F205</td>
<td>Introduction to Secondary Education</td>
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<tr>
<td>EDSC F614</td>
<td>Learning, Development and Special Needs Instruction</td>
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</tr>
<tr>
<td>or EDSE F622</td>
<td>Curriculum, Management and Strategies II: High Incidence</td>
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<tr>
<td>EDSC F636</td>
<td>Art Secondary Instruction and Assessment</td>
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<td>EDSC F642</td>
<td>Technology Applications in Education I</td>
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<td>EDSC F643</td>
<td>Technology Application in Education II</td>
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<td>EDSC F657</td>
<td>Multicultural Education and School-community Relations</td>
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<td>EDSC F658</td>
<td>Classroom Organization and Management</td>
<td>3</td>
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<td>EDSC F672</td>
<td>Secondary Teaching: School Internship II and Seminar</td>
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<tr>
<td>PSY F240</td>
<td>Psychology of Development</td>
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<tr>
<td>or PSY F245</td>
<td>Child Development</td>
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</table>
Elementary (K-8) Postbaccalaureate Licensure Program

This program is offered in Fairbanks and College of Rural and Community Development campus service areas. The elementary teacher postbaccalaureate program is an intensive, year-long program designed to provide students with the course work and internship experience necessary to meet the Alaska Teacher Standards and be eligible for licensure as an elementary teacher in Alaska. This classroom-based program is built upon the principle of partnership — a cooperative effort between interns, mentor teachers and university faculty partners.

Students begin the program in the summer with a 9-credit block of courses. Students who complete the undergraduate courses ED F110, ED F201, ED F330, ED F344 and EDSE F316 can use these to fulfill the summer requirements. During the academic year of the school district, all students complete two semesters of integrated university courses and internship.

Students must apply through the Office of the Registrar to graduate with a certificate of completion. At the end of the school year, if students have successfully met all of the program requirements, they will be eligible to apply for an Alaska Elementary License.

Elementary applicants apply as graduate-level licensure students. They may choose to complete this licensure program as part of the M.Ed. degree in elementary education. However, application to the M.Ed. degree program should be made at the beginning of elementary postbaccalaureate course work to avoid losing credits for the M.Ed. degree. (See M.Ed. elementary education (p. 318) options requirements.) Candidates who enter the elementary postbaccalaureate licensure program are required to have laptop computers prior to enrolling in ED F344 or ED F624.

School of Education (http://www.uaf.edu/soe/)
907-474-7341

Admission Requirements

Admission and Application Information

It is strongly recommended that applicants contact the School of Education several months prior to the deadline—this will allow sufficient time to complete prerequisites if necessary. Applications will be reviewed as submitted. Deadline is Feb. 15. Applicants may submit after the deadline with department faculty approval.

Admission includes meeting both UAF graduate admission requirements and the School of Education admission requirements.

GRADUATE SCHOOL REQUIREMENTS

Submit the following to the UAF Office of Admissions with a copy to the School of Education:

1. UAF graduate application and fee.
2. Official transcript of bachelor’s degree from an accredited institution and official transcripts from all institutions attended. A GPA of at least 3.0 (B grade) in undergraduate degree is required but students with less than a 3.0 may be considered for conditional admission in special circumstances.
3. Three letters of reference that address qualifications and potential as a teacher.
4. A vitae/resume.
5. Four- to five-page essay indicating: reasons for wanting to become a teacher, assessment of academic and personal strengths relative to teaching, future plans and reasons for selecting the elementary postbaccalaureate program.

SCHOOL OF EDUCATION REQUIREMENTS

Submit the following information directly to the School of Education, using School of Education forms:

1. Alaska passing scores from the Praxis I or Praxis Core ASE exam in reading, writing and mathematics and Praxis II Elementary Content exam (test 5018). In extenuating circumstances, applicants may be allowed to begin the internship year without yet having an Alaska qualifying Praxis II score. Students cannot complete program requirements without receiving an Alaska qualifying Praxis II score.
2. Completed academic analysis form to provide information on breadth and depth of prior course work relative to 10 Alaska Student Content Standard areas. If additional course work is required, it must be completed prior to beginning the program.
3. A writing sample, autobiography, evidence of successful paid or volunteer teaching/learning experience, evidence of successful cross-cultural experience.
4. Evidence of technology competence through successful completion of ED F237A, ED F237B, ED F237C and ED F237D or by successfully challenging each of the four components of the two-credit course.
5. Completed Alaska Department of Education and Early Development authorization packet (fingerprint cards and criminal background check necessary to work in schools). Packet is available from the School of Education.
6. Some school districts may require interns to submit a physical examination form.

Program Requirements

Minimum Requirements for Elementary (K-8) Postbaccalaureate Licensure Program: 39 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED F624</td>
<td>Foundations of Education in Alaska: From Segregation to Standards</td>
<td>3</td>
</tr>
<tr>
<td>ED F625</td>
<td>Exceptional Learners and Child Development: Individual and Cultural Characteristics</td>
<td>3</td>
</tr>
<tr>
<td>ED F626</td>
<td>Teaching Reading, Writing and Language Arts</td>
<td>3</td>
</tr>
<tr>
<td>ED F411</td>
<td>Reading, Writing, Language Arts: Methods and Curriculum Development</td>
<td>3</td>
</tr>
<tr>
<td>ED F412</td>
<td>Integrated Social Studies and Language Arts: Methods and Curriculum Development</td>
<td>3</td>
</tr>
<tr>
<td>ED F466</td>
<td>Internship and Collaborative Student Teaching</td>
<td>3</td>
</tr>
<tr>
<td>ED F467</td>
<td>Classroom Management, Communication and Collaboration I</td>
<td>2</td>
</tr>
</tbody>
</table>
Admission includes meeting both UAF graduate admissions requirements and the School of Education admissions requirements.

**GRADUATE SCHOOL REQUIREMENTS**
Submit the following to the UAF Office of Admissions with a copy to the School of Education:

1. UAF graduate application and fee.
2. Official transcript of bachelor’s degree from an accredited institution and official transcripts from all institutions attended. A GPA of at least 3.0 (B grade) in undergraduate degree is required but students with less than a 3.0 may be considered for conditional admission in special circumstances.
3. Submit ACT, SAT or GRE scores.
4. Three letters of reference that address qualifications and potential as a teacher.
5. A vitae/resume.
6. Four- to five-page essay indicating: reasons for wanting to become a teacher, assessment of academic and personal strengths relative to teaching, future plans and reasons for selecting the elementary postbaccalaureate program.

**SCHOOL OF EDUCATION REQUIREMENTS**
Submit the following information directly to the School of Education, using School of Education forms:

1. Alaska passing scores from the Praxis I or Praxis Core ASE exam in reading, writing and mathematics and score from Praxis II Elementary Content exam (test 5014 or 5018).
2. Completed academic analysis form to provide information on breadth and depth of prior course work relative to 10 Alaska Student Content Standard areas.
   If additional course work is required, it must be completed prior to beginning the program.
3. Evidence of technology competence through successful completion of ED F237A, ED F237B, ED F237C and ED F237D or by successfully challenging each of the four components of the two-credit course.
4. Evidence of technology competence through successful completion of ED F237A, ED F237B, ED F237C and ED F237D or by successfully challenging each of the four components of the two-credit course.
5. Completed Alaska Department of Education and Early Development authorization packet (fingerprint cards and criminal background check necessary to work in schools). Packet is available from the School of Education.
6. Some school districts may require interns to submit a physical examination form.

**Program Requirements**

**Minimum Requirements for Elementary Education M.Ed.: 30 credits**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>General University Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (p. 290)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th><strong>Master of Education Degree Requirements</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Complete the master of education degree requirements. (p. 298)</td>
</tr>
</tbody>
</table>

Complete the admission requirements for the graduate-level elementary postbaccalaureate licensure program.
Elementary Education Program Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED F601</td>
<td>Introduction to Applied Social Science Research</td>
<td>3</td>
</tr>
<tr>
<td>ED/CCS F603</td>
<td>Field Study Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>or ED/CCS F604</td>
<td>Documenting Indigenous Knowledge</td>
<td></td>
</tr>
<tr>
<td>ED F624</td>
<td>Foundations in Education in Alaska: From Segregation to Standards</td>
<td>3</td>
</tr>
<tr>
<td>ED F625</td>
<td>Exceptional Learners and Child Development: Individual and Cultural Characteristics</td>
<td>3</td>
</tr>
<tr>
<td>ED F626</td>
<td>Teaching Reading, Writing and Language Arts</td>
<td>3</td>
</tr>
<tr>
<td>ED F678</td>
<td>Mathematics Methods and Curriculum Development</td>
<td>3</td>
</tr>
<tr>
<td>ED F688</td>
<td>Science Methods and Curriculum Development</td>
<td>3</td>
</tr>
<tr>
<td>ED F698</td>
<td>Non-thesis Research/Project</td>
<td>6</td>
</tr>
<tr>
<td>or ED F699</td>
<td>Thesis</td>
<td></td>
</tr>
</tbody>
</table>

Complete one graduate-level elective course approved by candidate’s graduate committee.

M.Ed., Online Innovation and Design

Overview

ADMISSION TO THIS CONCENTRATION IS CURRENTLY SUSPENDED.

The School of Education offers Master of Education degrees in counseling, special education and education. Students in the education major may earn a degree in these areas of specialization: people, place and pedagogy, second-language acquisition, bilingual education and literacy, and online innovation and design. Students completing postbaccalaureate certification in elementary or secondary education may earn an M.Ed. in the respective area. For elementary education, secondary education, special education and counseling majors, refer to specific admission and program requirements listed in the respective sections.

Admission Requirements

ADMISSION TO THIS CONCENTRATION IS CURRENTLY SUSPENDED.

The School of Education offers Master of Education degrees in counseling, special education and education. Students in the education major may earn a degree in these areas of specialization: people, place and pedagogy, second-language acquisition, bilingual education and literacy, and online innovation and design. Students completing postbaccalaureate certification in elementary or secondary education may earn an M.Ed. in the respective area. For elementary education, secondary education, special education and counseling majors, refer to specific admission and program requirements listed in the respective sections.

Admission Requirements

Applications will be reviewed on March 1 and Oct. 1 for admission in the following semester. Faculty may vote to admit, not admit or admit with stipulations. Stipulations are specified when additional development in particular areas is needed before beginning a graduate degree program.

Minimum requirements for admission to the M.Ed. program are:

1. Bachelor’s degree and a 3.0 GPA.
2. One year of satisfactory teaching or administrative experience. Alternative experience may be accepted.

Complete the following application procedures for the UAF Graduate School:

1. Submit a graduate application form to the UAF Office of Admissions.
2. Submit scores on the general GRE if undergraduate GPA is below 3.0.
3. Submit a four- to five-page essay that describes your career goals and educational philosophy, and how those goals and philosophy are relevant to the School of Education’s mission and education graduate degree program.
4. Submit official transcripts.
5. Submit three letters of reference.
6. Submit a resume.

Program Requirements

THIS CONCENTRATION IS CURRENTLY SUSPENDED.

Minimum Requirements for Degree: 30 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED F431</td>
<td>Web 2.0 Fundamentals: Participate, Produce, Publish</td>
<td>3</td>
</tr>
<tr>
<td>ED F601</td>
<td>Introduction to Applied Social Science Research</td>
<td>3</td>
</tr>
<tr>
<td>ED F650</td>
<td>Current Topics in Educational Technology: Innovative Instruction and Leadership</td>
<td>3</td>
</tr>
<tr>
<td>ED F654</td>
<td>Digital Citizenship, Internet Legal Issues, Digital Copyright and Fair Use</td>
<td>3</td>
</tr>
<tr>
<td>ED F659</td>
<td>Multimedia Tools for Educators</td>
<td>3</td>
</tr>
</tbody>
</table>

Cross-Cultural Foundations with Focus on Alaska Context Courses

Complete one from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED/CCS F610</td>
<td>Education and Cultural Processes</td>
<td></td>
</tr>
<tr>
<td>ED/CCS F611</td>
<td>Culture, Cognition and Knowledge Acquisition</td>
<td></td>
</tr>
<tr>
<td>ED/CCS F616</td>
<td>Education and Socioeconomic Change</td>
<td></td>
</tr>
<tr>
<td>ED/CCS F619</td>
<td>Cultural Atlases as a Pedagogical Strategy</td>
<td></td>
</tr>
<tr>
<td>ED F620</td>
<td>Language, Literacy and Learning</td>
<td></td>
</tr>
<tr>
<td>ED/CCS F631</td>
<td>Culture, Community and the Curriculum</td>
<td></td>
</tr>
<tr>
<td>ED F681</td>
<td>Place-based Education</td>
<td></td>
</tr>
<tr>
<td>ED F682</td>
<td>Rethinking Multicultural Education</td>
<td></td>
</tr>
</tbody>
</table>

Options
Complete one of the following options:  

**Thesis option**

**Project option**

**Comprehensive exam option**

### Options

#### Thesis Option

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Complete the following:</td>
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<tr>
<td>One F600-level online innovation and design elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ED/CCS F603</td>
<td>Field Study Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>or ED/CCS F604</td>
<td>Documenting Indigenous Knowledge</td>
<td></td>
</tr>
<tr>
<td>ED F699</td>
<td>Thesis</td>
<td>6</td>
</tr>
</tbody>
</table>

#### Project Option

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Complete the following:</td>
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<tr>
<td>One F600-level online innovation and design elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ED/CCS F603</td>
<td>Field Study Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>or ED/CCS F604</td>
<td>Documenting Indigenous Knowledge</td>
<td></td>
</tr>
<tr>
<td>ED F698</td>
<td>Non-thesis Research/Project</td>
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</tbody>
</table>

#### Comprehensive Exam Option

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Complete the following classes or comparable electives approved by the student’s graduate advisory committee.</td>
<td></td>
</tr>
<tr>
<td>ED F653</td>
<td>Instructional Design</td>
<td>3</td>
</tr>
<tr>
<td>ED F655</td>
<td>Online Pedagogy</td>
<td>3</td>
</tr>
<tr>
<td>ED F676</td>
<td>Emerging Instruction Modalities and Strategies</td>
<td>3</td>
</tr>
<tr>
<td>ED F677</td>
<td>Digital Storytelling</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete the comprehensive examination

### M.Ed., People, Place and Pedagogy

#### Admission Requirements

**ADMISSION TO THIS CONCENTRATION IS CURRENTLY SUSPENDED.**

The School of Education offers Master of Education degrees in counseling, special education and education. Students in the education major may earn a degree in these areas of specialization: people, place and pedagogy, second language acquisition, bilingual education and literacy, and online innovation and design. Students completing postbaccalaureate certification in elementary or secondary education may earn an M.Ed. in the respective area. For elementary education, secondary education, special education and counseling majors, refer to specific admission and program requirements listed in the respective sections.

**Admission Requirements**

Applications will be reviewed on March 1 and Oct. 1 for admission in the following semester. Faculty may vote to admit, not admit or admit with stipulations. Stipulations are specified when additional development in particular areas is needed before beginning a graduate degree program.

**Minimum requirements for admission to the M.Ed. program are:**

1. Bachelor’s degree and a 3.0 GPA.
2. One year of satisfactory teaching or administrative experience. Alternative experience may be accepted.

Complete the following application procedures for the UAF Graduate School:

1. Submit a graduate application form to the UAF Office of Admissions.
2. Submit scores on the general GRE if undergraduate GPA is below 3.0.
3. Submit a four- to five-page essay that describes your career goals and educational philosophy, and how those goals and philosophy are relevant to the School of Education’s mission and education graduate degree program.
4. Submit official transcripts.
5. Submit three letters of reference.
6. Submit a resume.

#### Program Requirements

**THIS CONCENTRATION IS CURRENTLY SUSPENDED.**

**Minimum Requirements for People, Place and Pedagogy M.Ed. Degree: 30 credits**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Complete the general university requirements. (p. 296)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the master of education degree requirements. (p. 298)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the admission requirements for the Master of Education degree.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>People, Place and Pedagogy Program Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the following:</td>
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<tr>
<td>ED F601</td>
<td>Introduction to Applied Social Science Research</td>
<td>3</td>
</tr>
<tr>
<td>ED/CCS F603</td>
<td>Field Study Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>or ED/CCS F604</td>
<td>Documenting Indigenous Knowledge</td>
<td></td>
</tr>
<tr>
<td>ED F620</td>
<td>Language, Literacy and Learning</td>
<td>3</td>
</tr>
<tr>
<td>ED F681</td>
<td>Place-based Education</td>
<td>3</td>
</tr>
<tr>
<td>ED F682</td>
<td>Rethinking Multicultural Education</td>
<td>3</td>
</tr>
<tr>
<td>ED F698</td>
<td>Non-thesis Research/Project</td>
<td>6</td>
</tr>
<tr>
<td>or ED F699</td>
<td>Thesis</td>
<td></td>
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<tr>
<td>Complete three elective courses from the following:</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>ED/CCS F610</td>
<td>Education and Cultural Processes</td>
<td></td>
</tr>
<tr>
<td>ED/CCS F611</td>
<td>Culture, Cognition and Knowledge Acquisition</td>
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</tr>
<tr>
<td>ED/CCS F616</td>
<td>Education and Socioeconomic Change</td>
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<tr>
<td>ED/CCS F619</td>
<td>Cultural Atlases as a Pedagogical Strategy</td>
<td></td>
</tr>
<tr>
<td>ED/CCS F631</td>
<td>Culture, Community and the Curriculum</td>
<td></td>
</tr>
</tbody>
</table>
Students may choose from the provided elective courses, or complete other courses as approved by their graduate advisory committee.

**M.Ed., Second Language Acquisition, Bilingual Education and Literacy**

**Overview**

ADMISSION TO THIS CONCENTRATION IS CURRENTLY SUSPENDED.

The innovative master’s degree program in second-language acquisition, bilingual education and literacy provides innovative combined course work in literacy with second language acquisition. Candidates will receive an interdisciplinary education that will have immediate application for teachers, all of whom work in increasingly complex bilingual, multilingual and multimodal classroom environments. Candidates simultaneously earn a master’s degree and are eligible to apply for an Alaska K-12 statewide endorsement based on TESOL standards, Alaska teacher standards and Alaska cultural standards. The program may be completed in either education (M.Ed.) or applied linguistics (M.A.). While program requirements are identical, the specific degree awarded (M.Ed. or M.A.) is determined by the advisor’s department or school. Comprehensive exams and teacher-action research are required.

**Admission Requirements**

ADMISSION TO THIS CONCENTRATION IS CURRENTLY SUSPENDED.

Applications will be reviewed on March 1 and Oct. 1 for admission in the following semester. Faculty may vote to admit, not admit or admit with stipulations. Stipulations are specified when additional development in particular areas is needed before beginning a graduate degree program.

Minimum requirements for admission to the M.Ed. program are:

1. Bachelor’s degree and a 3.0 GPA.
2. Current teaching certificate
3. One year of satisfactory teaching or administrative experience. Alternative experience may be accepted.

Complete the following application procedures for the UAF Graduate School:

1. Submit a graduate application form to the UAF Office of Admissions.
2. Submit scores on the general GRE if undergraduate GPA is below 3.0.
3. Submit a four- to five-page essay that describes your career goals and educational philosophy, and how those goals and philosophy are relevant to the School of Education’s mission and education graduate degree program.
4. Submit official transcripts.
5. Submit three letters of reference.
6. Submit a resume.

**Program Requirements**

Candidates simultaneously earn a master’s degree and a K-12 statewide endorsement based on TESOL standards, Alaska teacher standards and Alaska cultural standards. The program may be completed in either Education (M.Ed.) or applied linguistics (M.A.). While program requirements are identical, the specific degree awarded (M.Ed. or M.A.) is determined by the advisor’s department or school. Comprehensive exams and teacher-action research are required.

**THIS CONCENTRATION IS CURRENTLY SUSPENDED.**

**Minimum Requirements for Second Language Acquisition, Bilingual Education and Literacy M.Ed.: 30 credits**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>General University Requirements</td>
<td>Complete the general university requirements. (p. 296)</td>
<td></td>
</tr>
<tr>
<td>Master of Education Degree Requirements</td>
<td>Complete the master of education degree requirements. (p. 298)</td>
<td></td>
</tr>
<tr>
<td>Second Language Acquisition, Bilingual Education and Literacy Program Requirements</td>
<td>Complete the admission requirements for the Master of Education degree.</td>
<td></td>
</tr>
<tr>
<td>ED F601</td>
<td>Introduction to Applied Social Science Research</td>
<td>3</td>
</tr>
<tr>
<td>ED F670</td>
<td>Developing Literacy: ECE-12</td>
<td>3</td>
</tr>
<tr>
<td>ED F673</td>
<td>Literacy in the Content Area</td>
<td>3</td>
</tr>
<tr>
<td>ED F683</td>
<td>Instruction and Assessment in Literacy</td>
<td>3</td>
</tr>
<tr>
<td>ED F698</td>
<td>Non-thesis Research/Project Thesis</td>
<td>6</td>
</tr>
<tr>
<td>LING F600</td>
<td>Research Methods for Applied Linguistics</td>
<td>3</td>
</tr>
<tr>
<td>LING F601</td>
<td>Principles of Linguistic Analysis</td>
<td>3</td>
</tr>
<tr>
<td>LING F602</td>
<td>Second Language Acquisition</td>
<td>3</td>
</tr>
<tr>
<td>LING F610</td>
<td>Theory and Methods of Second Language Teaching</td>
<td>3</td>
</tr>
</tbody>
</table>

**M.Ed., Secondary Education**

The master’s in secondary education program with graduate postbaccalaureate teacher licensure offers a pathway for college graduates to earn a teaching certificate and obtain knowledge and skills in research and pedagogy. Courses are available on campus at the University of Alaska Fairbanks and by distance delivery. The program provides disciplinary and multicultural approaches to teaching students in the diverse contexts of today’s educational settings. Students will participate in intensive, mentored and supervised experiences in secondary classrooms, which include a semester of student teaching.

**Admission Requirements**

Admission and Application Requirements

Admission to the graduate secondary postbaccalaureate licensure program and the M.Ed. in secondary education includes meeting requirements of the UAF Graduate School and of the School of Education.

Submit the following information to the UAF Office of the Registrar:

1. UAF graduate application and application fee.
2. Official transcript of bachelor’s degree from an accredited institution.
3. Applicants who have attended more than one university should include transcripts from all universities.
3. Three current letters of reference that address qualifications and potential as a teacher.
4. A vitae/resume.
5. A personal statement of 1,200-1,500 words explaining your motivation for becoming a teacher. Describe how your academic qualifications and work experiences have prepared you for a career in teaching. Elaborate on your personal strengths, including your ability to work collaboratively with others. Describe your experiences with adolescents in instructional and supervisory capacities. Explain why you believe you can help young people of all cultures be successful in school.

Send the following scores directly to the School of Education:

1. Passing scores on an Alaska Department of Education and Early Development (EED) approved basic competency exam (http://education.alaska.gov/TeacherCertification/praxis.html).
2. Passing scores on the Praxis II test for each content area the applicant expects to teach. The scores must meet the score set by the State of Alaska (https://education.alaska.gov/TeacherCertification/). World language applicants may need an oral proficiency test as required by EED.
3. Secondary faculty will interview applicants as part of the admission process.

Additional Information:

Evidence of content competency in one of the UAF-approved secondary endorsement areas is necessary. Endorsement areas for teacher certification include mathematics, biology, chemistry, Earth science, physics, English, World Languages (e.g., French, German, Spanish), and Social-Sciences (e.g., history, economics, geography, political science). A student can establish content competency by:

a) Holding a degree in an approved secondary endorsement area; or
b) Documenting content competency (e.g., transcript analysis by faculty).

Additional coursework may be required.

*Before student teaching, teacher candidates will need to complete the Alaska Department of Education and Early Development student teaching authorization. Fingerprint cards and criminal background check necessary to work in schools.

**Program Requirements**

**Minimum Requirements for Secondary Education M.Ed.: 37 credits**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED</td>
<td>Introduction to Applied Social Science Research</td>
<td>3</td>
</tr>
<tr>
<td>EDSC</td>
<td>Developing Literacy in the Content Areas</td>
<td>3</td>
</tr>
<tr>
<td>EDSC F614</td>
<td>Learning, Development and Special Needs Instruction</td>
<td>3</td>
</tr>
<tr>
<td>or EDSE F622</td>
<td>Curriculum, Management and Strategies II: High Incidence</td>
<td></td>
</tr>
<tr>
<td>EDSC F642</td>
<td>Technology Applications in Education I</td>
<td>1</td>
</tr>
<tr>
<td>EDSC F643</td>
<td>Technology Application in Education II</td>
<td>2</td>
</tr>
<tr>
<td>EDSC F657</td>
<td>Multicultural Education and School-community Relations</td>
<td>4</td>
</tr>
<tr>
<td>EDSC F658</td>
<td>Classroom Organization and Management</td>
<td>3</td>
</tr>
<tr>
<td>EDSC F671</td>
<td>Secondary Teaching: School Internship I and Seminar</td>
<td>3</td>
</tr>
<tr>
<td>EDSC F672</td>
<td>Secondary Teaching: School Internship II and Seminar</td>
<td>6-9</td>
</tr>
</tbody>
</table>

Complete one of the following:

- EDSC F631 | Secondary Instruction and Assessment in the Content Area | 3 |
- EDSC F632 | English/Language Arts Secondary Instruction and Assessment |  |
- EDSC F633 | Mathematics Secondary Instruction and Assessment |  |
- EDSC F634 | Science Secondary Instruction and Assessment |  |
- EDSC F635 | Social Studies Secondary Instruction and Assessment |  |
- EDSC F636 | Art Secondary Instruction and Assessment |  |
- EDSC F637 | World Language Secondary Instruction and Assessment |  |

**Thesis, Project or Comprehensive Exam Option**

Complete the thesis, project or comprehensive exam option 6-9

**Options**

**Thesis Option**

Complete the following:

- ED/CCS F603 | Field Study Research Methods | 3 |
- or ED/CCS F604 | Documenting Indigenous Knowledge |  |
- ED F699 | Thesis | 6 |

**Project Option**

Complete the following:

- ED/CCS F603 | Field Study Research Methods | 3 |
- or ED/CCS F604 | Documenting Indigenous Knowledge |  |
- ED F698 | Non-thesis Research/Project | 3 |

**Comprehensive Exam Option**

Complete the following:

- 6 graduate-level elective credits approved by candidate’s graduate committee 6
- Comprehensive examination
M.Ed., Special Education

Prepares K-12 special educators at the graduate level with specific training in the areas of disabilities, assessment, interventions strategies, current law and the implementation of programs including development of legally defensible documents related to the federal individuals with Disabilities Education Act.

Graduates will have mastery of the Council for Exceptional Children standards for special education teachers: learner development and individual learning differences, learning environments, curricular content knowledge, assessment, instructional planning and strategies, professional learning, and ethical practice and collaboration.

The program will provide individuals who already possess, or are eligible for, a current Alaska teaching certificate or a bachelor’s degree and the necessary prerequisites with specific training in the area of special education. The program prepares K-12 special education teachers who can effectively understand state and national education issues and respond appropriately. Special education candidates will progress through a series of developmentally sequenced field experiences for all ages, types and levels of abilities including collaborative opportunities.

An option is available for individuals who are already certified special education teachers or individuals who want the special education knowledge and master’s degree to perform professional duties that do not include being a special education classroom instructor. These individuals will not complete special education clinical practice, and no institutional recommendation for special education teacher certification will be issued.

The Master of Education in special education provides development in collaboration/consultation models and program development in multicultural settings. Completion of this program meets requirements for Alaska licensure as a K-12 special education teacher. For special education teacher certification in the state of Alaska, a passing score on the Praxis II Special Education: Core Knowledge and Applications test (#5354) is required.

Admission Requirements

The School of Education offers Master of Education degrees in counseling, special education and education. Students in the education major may earn a degree in these areas of specialization: people, place and pedagogy, second language acquisition, bilingual education, and literacy, and online innovation and design. Students completing postbaccalaureate certification in elementary or secondary education may earn an M.Ed. in the respective area. For elementary education, secondary education, special education and counseling majors, refer to specific admission and program requirements listed in the respective sections.

Admission Requirements

Applications will be reviewed on March 1 and Oct. 1 for admission in the following semester. Faculty may vote to admit, not admit or admit with stipulations. Stipulations are specified when additional development in particular areas is needed before beginning a graduate degree program.

Minimum requirements for admission to the M.Ed. program are:

1. Bachelor’s degree and a 3.0 GPA.
2. One year of satisfactory teaching or administrative experience. Alternative experience may be accepted.

Complete the following application procedures for the UAF Graduate School:

1. Submit a graduate application to the UAF Office of Admissions.
2. Submit scores on the general GRE if undergraduate GPA is below 3.0.
3. Submit a four- to five-page essay that describes your career goals and educational philosophy, and how those goals and philosophy are relevant to the School of Education’s mission and education graduate degree program.
4. Submit official transcripts.
5. Submit three letters of reference.
6. Submit a resume.

For Certified Teachers

Complete the following admission requirements:

• Current Alaska teaching certificate or equivalent course work towards an Alaska teaching certificate.

Prerequisite or corequisite: EDSE F482 or comparable transfer course from another institution.

For Initial Certification

Complete the following admission requirements:

1. Baccalaureate degree along with the following prerequisites:
   a. Documented recent experience (minimum of 12 hours) in an educational setting with children experiencing disabilities.
   b. UAF prerequisite or corequisite courses or comparable transfer courses. Courses may be completed prior to admission or during the program:

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<thead>
<tr>
<th>Code</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>ED F245</td>
<td>Child Development</td>
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<tr>
<td>ED F201</td>
<td>Introduction to Education</td>
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<tr>
<td>ED F624</td>
<td>Foundations of Education in Alaska: From Segregation to Standards</td>
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<tr>
<td>EDSC F205</td>
<td>Introduction to Secondary Education</td>
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</tr>
<tr>
<td>EDSC F415</td>
<td>Foundations of Modern Educational Practice</td>
<td></td>
</tr>
<tr>
<td>EDSE F482</td>
<td>Inclusive Classrooms for All Children</td>
<td></td>
</tr>
</tbody>
</table>

   c. Passing scores on the Praxis Academic Skills for Educators text (or Praxis I) or another test acceptable to the Alaska Department of Education and Early Development before or during the first semester of classes. Current test numbers and minimum scores can be found at the basic competency examination requirement site (https://education.alaska.gov/teachercertification/praxis/).
   d. Passing scores on the appropriate Praxis II Exam(s) required before entering EDSE F678. Current test numbers and minimum scores can be found at the Alaska Department of Education and Early Development content area examinations site (https://
Candidates should consult the employing school district to determine preferred tests based on teaching assignment.

e. Passing scores on the Special Education: Core Knowledge and Applications Praxis Exam (test #5354) or another test acceptable to the Alaska Department of Education and Early Development before or during EDSE F680. Passing scores are required to complete EDSE F680 and graduate from the Special Education K-12 Postbaccalaureate Certificate of Completion.

Recommended prior to admission or during the program, not required for the degree but for Alaska teacher certification:

1. An Alaska studies course approved by the Alaska Department of Education and Early Development (http://education.alaska.gov/teachercertification/).
2. A multicultural education/cross-cultural communication course approved by the Alaska Department of Education and Early Development (http://education.alaska.gov/teachercertification/).

All prerequisite courses must be completed with a minimum final grade of B.

### Program Requirements

#### Program Requirements for Certified Teachers

Minimum Requirements for Degree: 36 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tr>
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<td><strong>General University Requirements</strong></td>
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<tr>
<td></td>
<td>Complete the general university requirements. (p. 296)</td>
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</tr>
<tr>
<td></td>
<td><strong>M.Ed. Degree Requirements</strong></td>
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<tr>
<td></td>
<td>Complete the Master of Education degree requirements. (p. 298)</td>
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<tr>
<td></td>
<td><strong>Corequisite Requirements ¹</strong></td>
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<tr>
<td>EDSE F482</td>
<td>Inclusive Classrooms for All Children</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Certified Teachers Program Requirements</strong></td>
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<td>ED F601</td>
<td>Introduction to Applied Social Science Research</td>
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<tr>
<td>EDSE F610</td>
<td>Assessment of Students with Exceptionalities</td>
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<tr>
<td>EDSE F612</td>
<td>Curriculum, Management and Strategies I: Low Incidence</td>
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<td>EDSE F622</td>
<td>Curriculum, Management and Strategies II: High Incidence</td>
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<td>EDSE F625</td>
<td>Teaching Mathematics to Special Learners</td>
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<tr>
<td>EDSE F632</td>
<td>Special Education Law: Principles and Practices</td>
<td>3</td>
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<tr>
<td>EDSE F677</td>
<td>English Language Arts Assessment, Curriculum and Strategies for Special Learners</td>
<td>3</td>
</tr>
<tr>
<td>EDSE F680</td>
<td>Special Education Clinical Practice ², ³</td>
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<td></td>
<td>Complete four from the following elective courses as approved by the candidate's graduate committee:</td>
<td>12</td>
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<tr>
<td>ED F603</td>
<td>Field Study Research Methods</td>
<td></td>
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or ED/CCS F604 Documenting Indigenous Knowledge

EDSE F605 Early Childhood Special Education
EDSE F624 Social/Emotional Development, Assessment and Intervention
EDSE F633 Autism and Other Developmental Disabilities: Communication and Social Interventions
EDSE F640 Culturally Responsive Collaboration: Working with Parents, Colleagues and Paraprofessionals
EDSE F642 Autism Spectrum Disorders and Other Developmental Disabilities: Sensory and Behavioral Interventions
EDSE F648 Understanding FASD: Diagnosis, Intervention and Strategies

Complete comprehensive examination ⁴

1. Complete the corequisite course before or during admittance to the program; or have a comparable transfer course from another university.
2. Additional fee required. Charges are added to fee statements every semester.
3. Students pursuing a K-12 special education certificate must complete clinical practice in a public school setting.
4. Must be enrolled in 3 graduate credits the semester the comprehensive exam is completed.

### Program Requirements for Initial Certification

Minimum Requirements for Degree: 39 credits

<table>
<thead>
<tr>
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<th>Title</th>
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</thead>
<tbody>
<tr>
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<td><strong>General University Requirements</strong></td>
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<td></td>
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<tr>
<td></td>
<td><strong>Master of Education Degree Requirements</strong></td>
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<tr>
<td></td>
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<td><strong>Corequisite Requirements ¹</strong></td>
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<tr>
<td>ED F245</td>
<td>Child Development</td>
<td></td>
</tr>
<tr>
<td>EDSE F482</td>
<td>Inclusive Classrooms for All Children</td>
<td></td>
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<tr>
<td></td>
<td>Complete one of the following:</td>
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<td>ED F201</td>
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<td>Foundations of Education in Alaska: From Segregation to Standards</td>
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<tr>
<td>EDSC F205</td>
<td>Introduction to Secondary Education</td>
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<tr>
<td>EDSC F415</td>
<td>Foundations of Modern Educational Practice</td>
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</table>

**Initial Certification Program Requirements**

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<tbody>
<tr>
<td>ED F601</td>
<td>Introduction to Applied Social Science Research</td>
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<tr>
<td>EDSE F610</td>
<td>Assessment of Students with Exceptionalities</td>
<td>3</td>
</tr>
<tr>
<td>EDSE F612</td>
<td>Curriculum, Management and Strategies I: Low Incidence</td>
<td>3</td>
</tr>
</tbody>
</table>
EDSE F622  Curriculum, Management and Strategies II: High Incidence  3
EDSE F625  Teaching Mathematics to Special Learners  3
EDSE F632  Special Education Law: Principles and Practices  3
EDSE F677  English Language Arts Assessment, Curriculum and Strategies for Special Learners  3
EDSE F678  Special Education Clinical Practice: Initial  2
EDSE F680  Special Education Clinical Practice 2,3  3
Complete four from the following elective courses as approved by the candidate's graduate committee:  12
ED F603  Field Study Research Methods
or ED/CCS F604  Documenting Indigenous Knowledge
EDSE F605  Early Childhood Special Education
EDSE F624  Social/Emotional Development, Assessment and Intervention
EDSE F633  Autism and Other Developmental Disabilities: Communication and Social Interventions
EDSE F640  Culturally Responsive Collaboration: Working with Parents, Colleagues and Paraprofessionals
EDSE F642  Autism Spectrum Disorders and Other Developmental Disabilities: Sensory and Behavioral Interventions
EDSE F648  Understanding FASD: Diagnosis, Intervention and Strategies
Complete comprehensive examination  4
1 Complete the corequisite courses before or during admittance to the program; or have comparable transfer courses from another university.
2 Additional fee required. Charges are added to fee statements every semester.
3 Students pursuing a K-12 special education certificate must complete clinical practice in a public school setting.
4 Must be enrolled in 3 graduate credits the semester the comprehensive exam is completed.

Secondary Postbaccalaureate Licensure Program toward M.Ed., Secondary Education

This program is offered in Fairbanks and in areas served by the College of Rural and Community Development campuses and their service areas with the exception of the Aleutian-Pribilof Center.

This is an intensive, classroom-based secondary licensure program (31 credits) that prepares postbaccalaureate candidates for secondary (grades 7-12) teaching positions. The program is specifically designed to prepare candidates to teach in multicultural settings in Alaska. Content that addresses multicultural issues in general, and Alaska rural issues in particular, is contained specifically in EDSC F657 and is a fundamental component of the course work within the program. When funding is
available, all secondary Fairbanks candidates participate in a rural practicum.

Candidates who apply as graduate applicants may simultaneously pursue teacher licensure and the M.Ed. secondary education degree. Significant additional course work will be required. (See requirements for M.Ed. secondary education (p. 321) option.)

Student outcomes for the program are based on the Standards for Alaska’s Teachers (https://education.alaska.gov/standards/).

At the end of the program, if students have successfully met all of the program requirements, they will be eligible to apply for an Alaska initial teaching licenses and will receive certificates of completion from UAF.

Candidates who enter the secondary postbaccalaureate licensure program are required to have use of/own laptop computers before they begin their internships in the fall semester of their professional year. Candidates are expected to be proficient in Windows Office software, including, but not limited to, word processing, spreadsheets and presentation software.

Program Options: Fast-Track, Two-Year or Teaching While Training

FAST-TRACK OPTION
The fast-track option is an intensive three-semester program that allows candidates (one year unpaid interns) to complete the secondary licensure program as full-time students in 12 months. Candidates take classes in summer, fall and spring. The academic-year-long internship is completed during the fall and spring semesters.

TWO-YEAR OPTION
The two-year option allows candidates (two-year unpaid interns) to complete the secondary postbaccalaureate licensure program as part-time students over a period of 18-24 months. The last semester of the program requires full-time placement at a public school site.

TEACHING WHILE TRAINING OPTION
The teaching while training option is for candidates (teacher interns) who have secured a teaching position with an Alaska school district. Generally, this option is available only to those candidates in areas of teacher shortage. Candidates complete the secondary postbaccalaureate licensure program over a period of 24 months.

Upon Acceptance to the Program
The School of Education has a systematic procedure for monitoring the progress of education students from admission through completion of their professional education program to determine if they should continue the program, be advanced to the secondary teaching internship and eventually be recommended for a teaching license. In assessing candidate progress in knowledge, skills and disposition, faculty will review grades, observations, faculty recommendations, demonstrated academic competence and recommendations from the appropriate professionals in the schools. Systematic approaches are used to assist education candidates who are making unsatisfactory progress in their programs, but still maintain potential for successful completion.

The following are specific criteria for entry to the secondary teaching internship:

- Successful completion of summer program courses;
- Approval of faculty to enter the secondary education internship;
- Some school districts may require candidates to pass a general physical exam and require additional shot records;
- Some school districts require completion of district substitute training which may include a fee, a fingerprint card and AST background check; and
- State of Alaska certificate of authorization, fingerprint cards and money order in the amount of $60 to the School of Education by June 1 (this fee is nonrefundable once submitted to the State of Alaska). The School of Education provides these materials, which will then be submitted to the State of Alaska for a criminal background check. Fees are subject to change. These materials will be provided to the student.

Professional Field Experiences
The secondary postbaccalaureate licensure program includes a comprehensive internship experience in an educational setting. Internship placements are arranged and supervised by university faculty in partnership with the principal and staff from the public school. University course work and classroom practice are closely linked and communication about performance in both the course work and classroom practice is shared among the partners. Internships follow the K-12 school year calendar and not the university academic year calendar.

Performance in the internship must meet stated competencies and individual outcomes. Performance evaluations determine the candidate’s progress toward meeting the State of Alaska Standards for Alaska’s Teacher and the International Society for Technology in Education’s National Education Technology Standards and Performance Indicators for All Teachers and performance guidelines of Specialty Performance Organizations.

It is expected that candidates will demonstrate appropriate professional characteristics with respect to their actions, attitudes and performance. Teacher candidates are required to adhere to the characteristics of professionalism as published in the Secondary Postbaccalaureate Licensure Handbook, and to abide by the State of Alaska Code of Ethics of the Education Profession. Unacceptable academic performance, an unprofessional attitude, unsatisfactory field reports, violation of professional ethics or other factors that may result in removal from the field experience and denial of the institutional recommendation for teacher certification.

Internship placements are made in partnership with participating school districts, which may request additional information and/or preparation from candidates according to the district’s established policies and practices. Because cooperating districts also determine the number of placements available for candidates, placement may become competitive if the number of applicants exceeds the number of spaces. Districts also reserve the right to refuse or terminate placements when candidates do not meet a minimum standard of performance. Thus, while the University will make every effort to identify appropriate field experiences, admission to the secondary postbaccalaureate licensure program does not guarantee an internship placement.

Admission Requirements

Admission and Application Requirements
Application recommended due dates are March 1 (summer or fall admission) and Oct. 15 (spring admission). Applications will be reviewed on an ongoing basis thereafter.

Admission includes meeting both UAF Graduate School and School of Education admission requirements.

GRADUATE SCHOOL REQUIREMENTS

Submit the following electronically (https://uaf.edu/admissions/apply/) to the UAF Office of Admissions:

1. UAF graduate application and application fee.
2. Official transcript of bachelor’s degree from accredited institution. Applicants who have attended more than one university should include transcripts from all universities.
3. ACT or SAT or GRE scores.
4. Three current letters of reference that address qualifications and potential as a teacher.
5. A vitae/resume.
6. A personal statement of 1,200-1,500 words explaining your motivation for becoming a teacher leader. Describe how your academic qualifications and work experiences have prepared you for a career in teaching. Elaborate on your personal strengths, including your ability to work collaboratively with others. Describe your experiences with adolescents in instructional and supervisory capacities. Explain why you believe you can help young people of all cultures be successful in school.

SCHOOL OF EDUCATION REQUIREMENTS

Send the following scores directly to the School of Education:

1. Passing scores on an Alaska Department of Education and Early Development (EED) approved basic competency exam (http://education.alaska.gov/TeacherCertification/praxis.html). World language applicants may need an oral proficiency test as required by EED.
2. Passing scores on the Praxis II test for each content area the applicant expects to teach. The scores must meet the score set by the State of Alaska (https://education.alaska.gov/TeacherCertification/).
3. Secondary faculty will interview applicants as part of the admission process.

Additional Information:

Evidence of content competency in one of the secondary endorsement areas is necessary. Endorsement areas for teacher certification include biology, chemistry, Earth science, economics, English, French, German, history, mathematics, physics, political science, and Spanish. Content competency can be established by:

a.) The applicant holds a degree in an approved secondary endorsement area or;

b.) Applicants who do not hold a degree in the academic content area that they expect to teach must have documentation of content competency (transcript analysis). Additional coursework may be required.

* Before student teaching teacher candidates will need to complete the Alaska Department of Education and Early Development student teaching authorization. Fingerprint cards and criminal background check are necessary to work in schools.

Program Requirements

Minimum Requirements for Secondary Postbaccalaureate Licensure Program Toward M.Ed.: 31-37 credits

<table>
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<td>EDSC F415</td>
<td>Foundations of Modern Educational Practice</td>
<td>3</td>
</tr>
<tr>
<td>EDSC F614</td>
<td>Learning, Development and Special Needs Instruction</td>
<td>3</td>
</tr>
<tr>
<td>or EDSE F622</td>
<td>Curriculum, Management and Strategies II: High Incidence</td>
<td></td>
</tr>
<tr>
<td>EDSC F642</td>
<td>Technology Applications in Education I</td>
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<td>EDSC F643</td>
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<td>EDSC F657</td>
<td>Multicultural Education and School-community Relations</td>
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<td>EDSC F658</td>
<td>Classroom Organization and Management</td>
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<td>6-9</td>
</tr>
<tr>
<td>EDSC F632</td>
<td>English/Language Arts Secondary Instruction and Assessment</td>
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<tr>
<td>EDSC F633</td>
<td>Mathematics Secondary Instruction and Assessment</td>
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<td>EDSC F634</td>
<td>Science Secondary Instruction and Assessment</td>
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<td>EDSC F635</td>
<td>Social Studies Secondary Instruction and Assessment</td>
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<td>EDSC F636</td>
<td>Art Secondary Instruction and Assessment</td>
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</tr>
<tr>
<td>EDSC F637</td>
<td>World Language Secondary Instruction and Assessment</td>
<td></td>
</tr>
</tbody>
</table>

1 Candidates must take the section or course that corresponds with their major teaching content areas.

Special Education K-12 Postbaccalaureate Certificate of Completion

Postbaccalaureate Certificate

Prepares K-12 special educators at the graduate level with specific training in the areas of disabilities, assessment, interventions strategies,
current law and the implementation of programs including development of legally defensible federal IDEA documents.

Graduates will have mastery of the Council for Exceptional Children standards for special education teachers: learner development and individual learning differences, learning environments, curricular content knowledge, assessment, instructional planning and strategies, professional learning and ethical practice and collaboration. The program will provide individuals who already possess, or are eligible for, a current Alaska teaching certificate or a bachelor’s degree and the necessary prerequisites, with specific training in the area of special education. The program prepares K-12 special education teachers who can effectively understand state and national education issues and respond appropriately. Special education candidates will progress through a series of developmentally sequenced field experiences for all ages, types and levels of abilities, including collaborative opportunities.

The program provides development in collaboration/consultation models and program development in multicultural settings. Completion of this program meets requirements for Alaska licensure as a K-12 special education teacher.

Minimum Requirements for Special Education K-12 Postbaccalaureate Certificate: 39-42 credits

School of Education (http://www.uaf.edu/educ/graduate/)
907-474-7341

Admission Requirements

Admission Requirements for Certified Teachers

Complete the following admission requirements:

- Admission requirements for the graduate program.
- Current teaching certificate or equivalent course work towards an Alaska teaching certificate.

Prerequisite or corequisite: EDSE F482 or comparable transfer course from another institution

Admission Requirements for Initial Certification

1. Complete the following admission requirements:
   a. Admission requirements for the graduate program.
   b. Baccalaureate degree along with the following prerequisites:
      i. Documented recent experience (minimum 12 hours) in an educational setting with children experiencing disabilities.
      ii. UAF prerequisite or corequisite courses or comparable transfer courses. Courses may be completed prior to admission or during the program:

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<tr>
<td>EDSE F482</td>
<td>Inclusive Classrooms for All Children</td>
<td>3</td>
</tr>
</tbody>
</table>

   Complete one of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED F201</td>
<td>Introduction to Education</td>
<td>3</td>
</tr>
<tr>
<td>ED F624</td>
<td>Foundations of Education in Alaska: From Segregation to Standards</td>
<td>3</td>
</tr>
</tbody>
</table>

   iii. Passing scores on the Praxis Academic Skills for Educators test (or Praxis I) or another test acceptable to the Alaska Department of Education and Early Development before or during the first semester of classes. Current test numbers and minimum scores can be found at the Basic Competency Examination Requirements page. (https://education.alaska.gov/teachercertification/praxis/)

   iv. Passing scores on the appropriate Praxis II Exam(s) required before entering EDSE F678. Current test numbers and minimum scores can be found on the Content Area Exam Information pdf. (https://education.alaska.gov/teachercertification/pdf/content_area_exams.pdf) Candidates should consult the employing school district to determine preferred tests based on teaching assignment.

   v. Passing scores on the Special Education: Core Knowledge and Applications Praxis Exam (test #5354) or another test acceptable to the Alaska Department of Education and Early Development before or during EDSE F680. Passing scores are required to complete EDSE F680 and graduate from the Special Education K-12 Postbaccalaureate Certificate of Completion.

2. The following are recommended prior to admission or during the program. They are not required for the degree, but they are required for Alaska teacher certification:
   a. An Alaska studies course approved by the Alaska Department of Education and Early Development. See the Teacher Certification site (http://education.alaska.gov/teachercertification/).
   b. A multicultural education/cross-cultural communication course approved by the Alaska Department of Education and Early Development. See the Teacher Certification site (http://education.alaska.gov/teachercertification/).

3. All prerequisite or corequisite courses must be completed with a minimum final grade of B.

Program Requirements

Program Requirements for Certified Teachers

Minimum Requirements for Certification: 24 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDSE F482</td>
<td>Inclusive Classrooms for All Children</td>
<td>3</td>
</tr>
</tbody>
</table>

   EDSC F205 | Introduction to Secondary Education          | 3       |
| EDSC F415 | Foundations of Modern Educational Practice   | 3       |

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDSE F610</td>
<td>Assessment of Students with Exceptionalities</td>
<td>3</td>
</tr>
<tr>
<td>EDSE F612</td>
<td>Curriculum, Management and Strategies I: Low Incidence</td>
<td>3</td>
</tr>
<tr>
<td>EDSE F622</td>
<td>Curriculum, Management and Strategies II: High Incidence</td>
<td>3</td>
</tr>
<tr>
<td>EDSE F625</td>
<td>Teaching Mathematics to Special Learners</td>
<td>3</td>
</tr>
</tbody>
</table>
Program Requirements for Initial Certification

Minimum Requirements for Certification: 27 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDSE F632</td>
<td>Special Education Law: Principles and Practices</td>
<td>3</td>
</tr>
<tr>
<td>EDSE F677</td>
<td>English Language Arts Assessment, Curriculum and Strategies for Special Learners</td>
<td>3</td>
</tr>
<tr>
<td>EDSE F680</td>
<td>Special Education Clinical Practice $^{2,3}$</td>
<td>3</td>
</tr>
</tbody>
</table>

**Electives**

Complete one of the following: 3

- EDSE F605 Early Childhood Special Education
- EDSE F624 Social/Emotional Development, Assessment and Intervention
- EDSE F633 Autism and Other Developmental Disabilities: Communication and Social Interventions
- EDSE F640 Culturally Responsive Collaboration: Working with Parents, Colleagues and Paraprofessionals
- EDSE F642 Autism Spectrum Disorders and Other Developmental Disabilities: Sensory and Behavioral Interventions
- EDSE F648 Understanding FASD: Diagnosis, Intervention and Strategies

1. Complete the corequisite course before or during admittance to the program; or have a comparable transfer course from another university.
2. Students pursuing a K-12 special education certificate must complete clinical practice in a public school setting.
3. Additional fee required. Charges are added to fee statements every semester.

Note: Students who do not have a current Alaska teacher certificate must take 6 credits of clinical practice. Clinical practice courses are taken the last two semesters of the program. To enter the clinical practice, students must apply for authorization from the State of Alaska. This includes fingerprinting and a background check. Fingerprint clearance may take up to six months to complete. Submit the clinical practice application two semesters prior to the desired placement. Failure to comply with the requirement, falsification of information, or evidence of a criminal conviction that is named in the law or the Professional Teaching Practices Commission is considered an ethics violation. This will result in denied access to field placement in Alaska school districts. Authorization is required before clinical practice can begin.

Electrical Engineering

**M.S. Degree**

The M.S. degree includes three options: a written thesis and oral defense for students interested in research and development; a project; or a course-work-only option. UAF offers an engineering Ph.D. program for students with an approved curriculum. Capable students with undergraduate degrees in physics, mathematics or related sciences, as well as in various branches of engineering, may also be admitted for graduate study. A student with adequate background can usually...
complete M.S. requirements within two years and a Ph.D. in another three years.

Graduate degree programs in electrical and computer engineering are closely connected with faculty research activities. Main areas of research include communications, radar, lidar and sonar remote sensing, instrumentation and microwave circuit design, electric power and energy systems, digital and computer engineering, nanotechnology, controls, and robotics. Current research topics include high-latitude satellite communications, rocket telemetry, radio wave propagation, ultra-wideband wireless communications, electromagnetic and acoustic wave propagation, remote biomedical and environmental instrumentation, microwave design, digital signal processing, digital and physical electronics, computer applications, remote hybrid electric power systems, electric power system design and analysis, electric power quality improvement, system identification, simulation, computer-controlled systems, control theory, robotics, and automation.

A number of on- and off-campus research facilities are available to students. Satellite, rocket and ground-based communication studies are carried out on campus and at Poker Flat Research Range, the only university-operated rocket range in the world. The Space Systems Engineering Laboratory provides students hands-on experience in all aspects of space system engineering through a design/build/launch paradigm applied to balloon and rocket payloads as well as small satellites. The Alaska Center for Unmanned Aircraft Systems Integration affords opportunities to work with drones and other UAVs. Department research laboratories include microwave, wireless communications, ultra-wide-band technology, waves, power electronics/robotics, instrumentation and digital laboratories.

Alaska’s environment and remote location provide unique opportunities for research, such as the use of acoustic, light and radio wave techniques for measuring fish in Alaska rivers to the geophysical properties of the aurora. Remote sensing for biomedical (animal tracking) and environmental (groundwater and air monitoring) applications is an important research area for Alaska. Electric power systems research includes issues related to isolated rural Alaska communities, analysis of larger interconnected generation, transmission and distribution systems serving major Alaska population centers, and the use of alternative energy systems.

Graduate students in electrical and computer engineering at UAF receive the highest quality contemporary education available at the graduate level and perform research appropriate to the technical needs of Alaska, the nation and the world.

Minimum Requirements for Electrical Engineering M.S. Degree: 32 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>General University Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (p. 296)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Master’s Degree Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the master’s degree requirements. (p. 298)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Electrical Engineering Program Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete one from the following options:</td>
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<tr>
<td></td>
<td>Thesis</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>Non-Thesis Project</td>
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</tr>
<tr>
<td></td>
<td>Non-Thesis Course Work</td>
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</table>

**THESIS**

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<tr>
<th>Code</th>
<th>Title</th>
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<tr>
<td>EE F699</td>
<td>Thesis</td>
<td>6-12</td>
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<tr>
<td></td>
<td>Additional credits</td>
<td>20-26</td>
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</table>

**Note:** At least 26 credits must be at the F600 level.

**NON-THESIS PROJECT**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EE F698</td>
<td>Non-thesis Research/Project ¹</td>
<td>1-6</td>
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<tr>
<td></td>
<td>Additional credits</td>
<td>26-31</td>
</tr>
</tbody>
</table>

**Note:** At least 26 credits must be at the F600 level.

¹ An oral project presentation and defense is required. The project will be archived in the UAF Rasmuson Library.

**NON-THESIS COURSE WORK**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Additional credits</td>
<td>32</td>
</tr>
</tbody>
</table>

**Note:** At least 26 credits must be at the F600 level.

See Engineering (p. 331) for Ph.D. program.
Engineering Ph.D. Degree

Engineers use knowledge of the mathematical and natural sciences to develop economical uses of materials and forces of nature for human benefit. The professional practice of engineering requires sophisticated skills, use of judgment and exercise of discretion. The basic education necessary for the professional practice of engineering is provided by the engineering bachelor and master's degrees. Doctoral-level education requires independent research that generates fundamental advances in technology and discovers new knowledge for the benefit of society. Engineering Ph.D. degrees provide leadership in scientific research, academia and industrial research and development. The Ph.D. degree in engineering draws on the combined strength of the College of Engineering and Mines and offers opportunities for engineers at other UA campuses to participate.

Minimum Requirements for Engineering Doctorate Degree: 36 credits
College of Engineering and Mines (http://cem.uaf.edu/academics/programs/)
907-474-7241

Programs Degree

• Ph.D., Engineering (p. 331)

(p. 331)With concentrations in:

• Arctic
• Civil
• Computer
• Electrical
• Engineering Management
• Environmental
• Geological
• Mechanical
• Mining and Petroleum

Ph.D., Engineering Admission Requirements

Complete the following admission requirements:

• Complete either a B.S. or M.S. degree in engineering.
• Complete a master's degree in engineering or a closely related field.
• Submit GRE scores.

Program Requirements

Minimum Requirements for Engineering Doctorate Degree: 36 credits
Concentrations: Arctic, Civil, Computer, Electrical, Engineering Management, Environmental, Geological, Mechanical, Mining and Petroleum

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>General University Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (p. 295)</td>
<td></td>
</tr>
</tbody>
</table>

Ph.D. Degree Requirements

Complete the Ph.D. degree requirements. (p. 292)

As part of the Ph.D. degree requirements:

• Complete at least 18 credits of course work beyond the M.S. degree.
• Complete at least three full-time semesters of residency, which may include a summer semester. 1
• Complete and pass a written and oral comprehensive examination.
• Complete and submit a written thesis proposal for approval.
• Complete a research program as arranged with the graduate advisory committee.
• Complete a thesis that is a substantial contribution to the body of knowledge in engineering and pass an oral defense of thesis.

1 Residency is defined as living in the Fairbanks area, working with the student's graduate advisor and graduate committee, while taking courses at UAF.

English


The English department offers core courses in writing and literature, and upper-division courses in literature, linguistics, creative writing, technical writing and literary criticism. The department also offers a two-year M.A. degree in literature, a three-year M.F.A. degree in creative writing and an M.F.A./M.A. combined degree in creative writing and literature that can be completed in three years. Teaching assistantships are available for the three programs. The M.A. degree offers advanced study of literature and literary theory, as preparation for teaching or for entering a Ph.D. program. The M.F.A. degree is a terminal degree, culminating in the production of a publication-quality thesis manuscript of poetry, fiction, drama, or creative non-fiction. The M.F.A./M.A. is a combined degree designed for qualified individuals who wish to produce a publication-quality thesis manuscript of creative writing, but also would like to pursue in a systematic manner the study of literature and literary theory in preparation for college teaching or entering a Ph.D. program.

Minimum Requirements for English Degrees: M.A.: 30-36 credits; M.F.A.: 45 credits; M.F.A./M.A.: 45 credits
College of Liberal Arts
Department of English (http://www.uaf.edu/english/)
907-474-7193

Programs Degrees

• M.A., English (p. 331)
• M.F.A., Creative Writing (p. 332)
• M.F.A./M.A., Combined Degree, Creative Writing and Literature (p. 333)

M.A., English Admission Requirements

Complete the following admission requirements:
• Submit GRE scores.
• Submit academic writing sample.

Program Requirements
Minimum Requirements for English M.A. Degree: 30 credits

<table>
<thead>
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<th>Code</th>
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<tbody>
<tr>
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<td>General University Requirements</td>
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<tr>
<td></td>
<td>Complete the general university requirements. (p. 290)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Master’s Degree Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the master’s degree requirements. (p. 298)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pass a written comprehensive examination based on a standardized reading list¹</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Students may advance to candidacy when their advisory committee deems that they have made satisfactory progress toward completion of their degree.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pass an oral defense of the thesis.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>English Program Requirements</td>
<td></td>
</tr>
<tr>
<td>ENGL F601</td>
<td>Theory, Criticism and Methods</td>
<td>3</td>
</tr>
<tr>
<td>ENGL F685</td>
<td>Teaching College Composition (or ENGL F600-level elective course)</td>
<td>3</td>
</tr>
</tbody>
</table>

Electives
Complete two from the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENGL F603</td>
<td>Studies in British Literature: Old and Middle English</td>
<td></td>
</tr>
<tr>
<td>ENGL F604</td>
<td>Studies in British Literature: Renaissance and 17th-Century</td>
<td></td>
</tr>
<tr>
<td>ENGL F606</td>
<td>Studies in British Literature: Restoration and 18th Century</td>
<td></td>
</tr>
<tr>
<td>ENGL F607</td>
<td>Studies in British Literature: 19th Century</td>
<td></td>
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Complete two from the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENGL F609</td>
<td>Studies in American Literature to 1865</td>
<td></td>
</tr>
<tr>
<td>ENGL F611</td>
<td>Studies in American Literature from 1865-1819</td>
<td></td>
</tr>
<tr>
<td>ENGL F612</td>
<td>Studies in American Literature after 1918</td>
<td></td>
</tr>
<tr>
<td>ENGL F620</td>
<td>Images of the North</td>
<td></td>
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Complete one of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENGL F608</td>
<td>Studies in British Literature After 1900</td>
<td></td>
</tr>
<tr>
<td>ENGL F614</td>
<td>Studies in Comparative Literature</td>
<td></td>
</tr>
<tr>
<td>ENGL F615</td>
<td>Contemporary Literature</td>
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</table>

Additional approved elective

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
</table>

Thesis

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
</table>

¹ The examination is to be taken in the student’s second year of work. The examination will be held on the Saturday ending the fourth full week of classes in the spring semester.

² Students are required to take ENGL F601 in their first year of study.

³ Required if you are a teaching assistant or planning to teach.

To maximize breadth of study, M.A. students and their advisors will draft individualized courses of study with the following program requirements in mind. The advisor will direct students to courses covering the required areas, subject to particular exemptions based upon undergraduate course work. Exemptions and any subsequent revisions of the course of study must have the agreement of the advisor and department head. Plans can be revised to substitute an appropriate seminar for one of the courses.

Note: Students may apply up to 3 credit hours of independent study toward the English M.A. degree requirements.

M.F.A., Creative Writing

Admission Requirements
Complete the following admission requirements:

• Submit GRE scores.
• Submit creative writing sample.

Program Requirements
Minimum Requirements for Creative Writing M.F.A. Degree: 45 credits

<table>
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<tr>
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<tbody>
<tr>
<td></td>
<td>General University Requirements</td>
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</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (p. 296)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Master’s Degree Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the master’s degree requirements. (p. 298)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Creative Writing Program Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete and pass a written comprehensive examination¹</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Students may advance to candidacy when their advisory committee deems that they have made satisfactory progress in both academic and writing areas.</td>
<td></td>
</tr>
<tr>
<td>ENGL F601</td>
<td>Theory, Criticism and Methods</td>
<td>3</td>
</tr>
<tr>
<td>ENGL F671</td>
<td>Writers’ Workshop</td>
<td></td>
</tr>
<tr>
<td>ENGL F685</td>
<td>Teaching College Composition (or ENGL F600-level elective course)</td>
<td>3</td>
</tr>
<tr>
<td>ENGL F699</td>
<td>Thesis</td>
<td>6</td>
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</table>

Approved electives

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
</table>

Literature seminars ⁴

Complete two from the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL F681</td>
<td>Forms of Poetry</td>
<td></td>
</tr>
<tr>
<td>ENGL F682</td>
<td>Forms of Fiction</td>
<td></td>
</tr>
<tr>
<td>ENGL F684</td>
<td>Forms of Nonfiction Prose</td>
<td></td>
</tr>
<tr>
<td>ENGL F688</td>
<td>Writing for Film and Television</td>
<td></td>
</tr>
</tbody>
</table>

¹ Based on a standardized reading list; examination to be taken no later than student’s fourth semester of work. Examination will be held on the Saturday ending the fourth full week of classes in the spring semester.

² Students are required to take ENGL F601 in their first year of study.

³ Required if you are a teaching assistant or planning to teach.
Minimum of four to be determined by student’s advisory committee. A literature class is one that does not have as its primary purpose the training of a student to be a creative writer or to teach composition. The following courses meet the literature-seminar requirement for the Ph.D. degree: ENGL F603, ENGL F604, ENGL F606, ENGL F607, ENGL F608, ENGL F609, ENGL F611, ENGL F612, ENGL F614, ENGL F615, ENGL F620 and versions of ENGL F692 and ENGL F693 that meet the above criteria.

Note: A student may petition the Thesis Advisory Committee and the department chair to take up to 6 credit hours of independent study to be applied toward the English M.F.A. electives requirement.

Note: The English Department requires that a student receive an A or B grade for all F600-level courses that the student wishes to apply toward the master’s degree programs.

M.F.A./M.A. Combined Degree, Creative Writing and Literature

Program Requirements
1. A student who wishes to be awarded an M.F.A./M.A. combined degree in creative writing and literature must be admitted to both programs;
2. Fulfill all general university requirements and master’s degree requirements and all course requirements within both programs (double counting allowed);
3. Pass comprehensive examinations in both programs;
4. Complete a thesis required for an M.F.A. degree and
   a. a thesis required for an M.A. degree,
   b. OR a scholarly essay which from a critical and/or historical perspective supplements the M.F.A. thesis and which the advisory committee(s) must judge to be of publishable quality.
   c. OR a scholarly essay on a topic approved by the advisory committee(s) and likewise judged as publishable.
5. Pass an oral examination of materials submitted from 4 above.
6. Finish all requirements in order to be awarded the combined degree instead of the M.A. or M.F.A. separately (i.e., a student may not claim at any time more than one degree for the same work).

Environmental Chemistry

Ph.D. Degree
Environmental chemistry focuses on the chemical processes influencing the composition and chemical speciation of natural systems (air, water and soils), the chemical fate and mobility of contaminants in the environment, chemical processes that affect the toxicity and bioavailability of contaminants, and chemical aspects of contaminant remediation and pollution prevention. The common link is a focus on the underlying chemical structure, reactivity and mechanisms that dictate the extent and rates of environmentally important chemical reactions. Environmental chemistry is a challenging field, requiring core training in physical, analytical, organic and inorganic chemistry, and an understanding of how these disciplines can be applied to complex environmental systems. It also provides a quantitative and fundamental approach to understanding the processes that influence the quality of the environment.

The Department of Chemistry and Biochemistry offers B.S. and M.S. via concentrations under the chemistry degree. The program provides education and research opportunities focused on the molecular scale aspects of environmental science. The program defines three tracks to meet a wide range of student interest:

1. atmospheric chemistry.
2. aqueous/environmental geochemistry, and
3. environmental toxicology and contaminant fate.

Students may also design a custom focus area, subject to approval by their advisory committee.

Our faculty are involved in a wide range of projects from field studies of chemical transformation and transport, to laboratory and modeling studies of the basic mechanisms of environmental reactions, to the development of novel chemistry useful in contaminant remediation. The program is centered in the Reichardt Building on the Fairbanks campus that houses state-of-the-art classrooms, laboratories and computer facilities to support education and research activities. Located in Interior Alaska, UAF is home to numerous research institutes and center that focus on Arctic science and engineering and provide great opportunities for collaboration and cross-disciplinary studies focused on the chemistry of polar and sub-Arctic systems.

The Ph.D. program in environmental chemistry provides advanced training in the concepts and methods of molecular environmental sciences with the expectation that Ph.D. recipients will be acknowledged as experts in their particular topic of study. This is accomplished primarily through the Ph.D. dissertation, which is a body of independent research that presents new findings on forefront topics related to molecular processes in the environment. The Ph.D. in environmental chemistry prepares students for careers in academia or the public and private research sectors. Graduate students in the environmental chemistry program are typically supported through teaching and research assistantships or fellowships. Students interested in the M.S. degree focusing on environmental chemical problems should see the M.S. Chemistry with concentration in Environmental Chemistry program.

Minimum Requirements for Environmental Chemistry Doctoral Degree:
18 thesis credits

College of Natural Science and Mathematics
Department of Chemistry and Biochemistry (http://www.uaf.edu/chem/)
907-474-5510

Programs
Degree

• Ph.D., Environmental Chemistry (p. 333)

Ph.D., Environmental Chemistry
Admission Requirements

Complete the following admission requirements

• Submit GRE General Test scores
• If English is not your native language, submit scores from both the Test of Spoken English and the Test of Written English, as well as TOEFL scores. Requests, including justification, for exceptions to this requirement should be made to the chair of the department.
## Program Requirements

### Minimum Requirements for Environmental Chemistry Ph.D.: 32 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>General University Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (p. 295)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Ph.D. Degree Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the Ph.D. degree requirements. (p. 292)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Environmental Chemistry Program Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select three from the following:</td>
<td>9</td>
</tr>
<tr>
<td>CHEM F606</td>
<td>Atmospheric Chemistry</td>
<td></td>
</tr>
<tr>
<td>CHEM F609</td>
<td>Aquatic and Environmental Geochemistry</td>
<td></td>
</tr>
<tr>
<td>CHEM F631</td>
<td>Environmental Fate and Transport</td>
<td></td>
</tr>
<tr>
<td>CHEM F655</td>
<td>Environmental Toxicology</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Seminar Courses</strong></td>
<td></td>
</tr>
<tr>
<td>CHEM F691</td>
<td>Research Presentation Techniques</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Complete approved electives</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Complete a thesis</td>
<td>18</td>
</tr>
</tbody>
</table>

1. CHEM F691 is a single credit course that must be completed twice to fulfill the program requirements.
2. Approved electives are specified by the student’s committee. The following tracks are defined as a guide. Within these tracks students will be expected to complete as part of the core and electives:
   i. Atmospheric Chemistry: CHEM F601, CHEM F606, CHEM F609 and CHEM F631
   ii. Aquatic/Environmental Geochemistry: CHEM F606 or CHEM F631; CHEM F609 and GEOS F618
   iii. Environmental Toxicology and Contaminant Fate: CHEM F606 or CHEM F609, CHEM F631 and CHEM F655

A customized focus area may be developed based on an appropriate sequence of core and elective courses, subject to approval by the student’s advisory committee.

See Biochemistry and Neuroscience (p. 303).

See Chemistry (p. 307).

### Fisheries

#### M.S., Ph.D. Degrees

Fisheries graduate students take classes and undertake research on a diverse set of fisheries-related topics. Program strengths include quantitative science, fisheries management and human dimensions, biology and ecology, and seafood technology. Students are typically based in Juneau, Fairbanks or Kodiak, but most courses are video-delivered to locations throughout Alaska.

Traditionally, the Juneau location emphasizes the marine environment; Fairbanks, the freshwater; and Kodiak, seafood science. However, students at each location are engaged in a wide variety of research topics. All locations have excellent laboratory facilities, access to pristine environments and healthy fisheries, and strong connections to state and federal agency scientists and managers as well as to participants in commercial, sport and subsistence fisheries.

Most students are supported as research assistants for some or all of their tenure. Agencies such as the National Atmospheric and Oceanic Administration, the U.S. Fish and Wildlife Service, and the Alaska Department of Fish and Game are collaborators on research projects and employ many of our graduates.

Minimum Requirements for Degrees: M.S.: 30 credits; Ph.D.: 18 thesis credits

College of Fisheries and Ocean Sciences (http://www.uaf.edu/cfos/academics/)
907-474-7289

### Programs

#### Degrees

- M.S., Fisheries (p. 334)
- Ph.D., Fisheries (p. 335)

### M.S., Fisheries

#### Admission Requirements

Complete the following admission requirements:

- Prerequisites: calculus; elementary statistics; ichthyology, biology of fish or invertebrate zoology; and computer competency.
- Submit GRE scores.

### Program Requirements

#### Minimum Requirements for Fisheries M.S.: 30 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td></td>
<td><strong>General University Requirements</strong></td>
<td></td>
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<tr>
<td></td>
<td>Complete the general university requirements. (p. 296)</td>
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<tr>
<td></td>
<td><strong>Master’s Degree Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the master’s degree requirements. (p. 298)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Fisheries Program Requirements</strong></td>
<td></td>
</tr>
<tr>
<td>FISH F699</td>
<td>Thesis</td>
<td>6-12</td>
</tr>
<tr>
<td>STAT F401</td>
<td>Regression and Analysis of Variance</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Graduate seminars</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Complete one from the following emphasis areas:</td>
<td>6-11</td>
</tr>
<tr>
<td></td>
<td>Fisheries Emphasis</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Seafood Science Emphasis</td>
<td></td>
</tr>
</tbody>
</table>

#### FISHERIES EMPHASIS

Complete one from the following under each area: 9-11

**Biology and Ecology of Fish and Shellfish**

- FISH F612 Marine and Freshwater Conservation Biology
- FISH F626 Behavioral Ecology of Fishes
- FISH F628 Physiological Ecology of Fishes
- FISH F633 Pacific Salmon Life Histories
- FISH F650 Fish Ecology
- FISH/MSL F676 Aquatic Food Web Ecology
MSL F615 Physiology of Marine Organisms
MSL F643 Fisheries Oceanography
MSL F652 Marine Ecosystems

Quantitative Population Dynamics of Fish and Shellfish
FISH F421 Fisheries Population Dynamics
FISH F621 Estimation of Fish Abundance
FISH F622 Quantitative Fish Population Dynamics

Management and Human Dimensions of Fisheries
FISH F411 Human Dimensions of Environmental Systems
or FISH F611 Human Dimensions of Environmental Systems
FISH F487 Fisheries Management
or FISH F687 Fisheries Management
FISH F640 Management of Renewable Marine Resources
FISH F645 Bioeconomic Modeling and Fisheries Management
FISH F670 Quantitative Analysis for Marine Policy Decisions
FISH F675 Political Ecology

SEAFOOD SCIENCE EMPHASIS

Biology and Ecology of Fish and Shellfish
FISH F612 Marine and Freshwater Conservation Biology
FISH F626 Behavioral Ecology of Fishes
FISH F628 Physiological Ecology of Fishes
FISH F633 Pacific Salmon Life Histories
FISH F650 Fish Ecology
FISH/MSL F676 Aquatic Food Web Ecology
MSL F615 Physiology of Marine Organisms
MSL F643 Fisheries Oceanography
MSL F652 Marine Ecosystems

Quantitative Population Dynamics of Fish and Shellfish
FISH F421 Fisheries Population Dynamics
FISH F621 Estimation of Fish Abundance
FISH F622 Quantitative Fish Population Dynamics

Management and Human Dimensions of Fisheries
FISH F411 Human Dimensions of Environmental Systems
or FISH F611 Human Dimensions of Environmental Systems
FISH F487 Fisheries Management
or FISH F687 Fisheries Management
FISH F640 Management of Renewable Marine Resources
FISH F645 Bioeconomic Modeling and Fisheries Management
FISH F670 Quantitative Analysis for Marine Policy Decisions
FISH F675 Political Ecology

Note: At least 21 credits of the required 30 M.S. degree credits must be at the F600 level. All other credits must be at least at the F400 level.

Ph.D., Fisheries
Admission Requirements

Complete the following admission requirements:

1. Complete a master's degree in a fisheries-related field or meet the requirements as outlined below to be accepted directly into a Ph.D. program without a master's degree.
2. Submit GRE scores.

Admission to Ph.D. Program Directly from Bachelor's Program

Entering graduate students whose highest earned degree is the baccalaureate are normally admitted as Master of Science candidates. However, exceptionally able and accomplished students in this category are eligible for direct admission to the Ph.D. program. Criteria for direct admission to the Ph.D. program from the baccalaureate are:

1. Endorsement by proposed chair of graduate advisory committee AND 2 or 3 below.
2. At least one first-authored manuscript published or accepted for publication in a peer-reviewed scientific journal or receipt of an NSF, NIH, or similar prestigious pre-doctoral fellowship. OR
3. Demonstrated research proficiency (e.g. undergraduate thesis, Research Experiences for Undergraduates or other intensive research experience) documented in the application AND either
   a. attained a GPA of at least 3.5 at the undergraduate level, or
   b. scored at the 80% level in two of three categories in the GRE.

Students who elect this route must fulfill course requirements as outlined for both the M.S. and Ph.D. degrees. Applicants who do not meet these criteria may enter the graduate program as M.S. candidates, and in exceptional cases may petition for conversion to the Ph.D. program after advancement to candidacy (for the M.S.). Such petitions must be approved both by the student’s current (M.S.) and proposed (Ph.D.) advisory committee and the department director or designee.

Program Requirements

Minimum Requirements for Fisheries Ph.D.: 36 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FISH F411</td>
<td>Human Dimensions of Environmental Systems</td>
<td></td>
</tr>
<tr>
<td>or FISH F611</td>
<td>Human Dimensions of Environmental Systems</td>
<td></td>
</tr>
<tr>
<td>FISH F487</td>
<td>Fisheries Management</td>
<td></td>
</tr>
<tr>
<td>or FISH F687</td>
<td>Fisheries Management</td>
<td></td>
</tr>
<tr>
<td>FISH F640</td>
<td>Management of Renewable Marine Resources</td>
<td></td>
</tr>
<tr>
<td>FISH F645</td>
<td>Bioeconomic Modeling and Fisheries Management</td>
<td></td>
</tr>
<tr>
<td>FISH F670</td>
<td>Quantitative Analysis for Marine Policy Decisions</td>
<td></td>
</tr>
<tr>
<td>FISH F675</td>
<td>Political Ecology</td>
<td></td>
</tr>
</tbody>
</table>

General University Requirements

Complete the general university requirements. (p. 295)

Ph.D. Degree Requirements

Complete the Ph.D. degree requirements. (p. 292)

Fisheries Program Requirements

Complete at least 18 credits of course work.
Complete a thesis.

1 Including 18 thesis credits.

Note: At least 9 of the required 18 Ph.D. degree credits must be at the F600 level, other courses must be at least at the F400 level.
Geological Engineering

M.S. Degree

Geological engineering deals with the application of geology. Geological engineers work with the environment in the true sense of the word. Properties of earth materials exploration activities, geophysical and geochemical prospecting, site investigations and engineering geology are all phases of geological engineering.

The graduate program prepares students for employment with industry, consulting companies and government agencies.

Minimum Requirements for Geological Engineering M.S. Degree: 30-33 credits

College of Engineering and Mines
Department of Mining and Geological Engineering (http://cem.uaf.edu/mingeo/)
907-474-7388

Programs

Degree

• M.S., Geological Engineering (p. 336)

M.S., Geological Engineering

Admission Requirements

Complete one of the following admission requirements:

• Complete a bachelor’s degree in geological engineering;
• Complete a bachelor’s degree in engineering and complete the following courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GE F365</td>
<td>Geological Materials Engineering</td>
<td>3</td>
</tr>
<tr>
<td>or MIN F370</td>
<td>Rock Mechanics</td>
<td></td>
</tr>
<tr>
<td>GE F405</td>
<td>Exploration Geophysics</td>
<td>3</td>
</tr>
<tr>
<td>and GE F420</td>
<td>Subsurface Hydrology</td>
<td></td>
</tr>
<tr>
<td>GEOS F262</td>
<td>Rocks and Minerals</td>
<td>3</td>
</tr>
<tr>
<td>and GEOS F332</td>
<td>and Ore Deposits and Structure</td>
<td></td>
</tr>
<tr>
<td>GEOS F322</td>
<td>Stratigraphy and Sedimentation</td>
<td>3</td>
</tr>
<tr>
<td>and GEOS F314</td>
<td>and Structural Geology</td>
<td></td>
</tr>
</tbody>
</table>

• Complete a bachelor’s degree in the natural sciences and complete the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ES F208</td>
<td>Mechanics</td>
<td>4</td>
</tr>
<tr>
<td>ES F331</td>
<td>Mechanics of Materials</td>
<td>3</td>
</tr>
<tr>
<td>ES F341</td>
<td>Fluid Mechanics</td>
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</tr>
<tr>
<td>GE F365</td>
<td>Geological Materials Engineering</td>
<td>3</td>
</tr>
<tr>
<td>or MIN F370</td>
<td>Rock Mechanics</td>
<td></td>
</tr>
<tr>
<td>GE F405</td>
<td>Exploration Geophysics</td>
<td>3</td>
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<tr>
<td>GE F420</td>
<td>Subsurface Hydrology</td>
<td>3</td>
</tr>
<tr>
<td>MIN F408</td>
<td>Mineral Valuation and Economics</td>
<td>3</td>
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</table>

Complete one of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOS F262</td>
<td>Rocks and Minerals</td>
<td>3</td>
</tr>
<tr>
<td>and GEOS F332</td>
<td>and Ore Deposits and Structure</td>
<td></td>
</tr>
<tr>
<td>GEOS F322</td>
<td>Stratigraphy and Sedimentation</td>
<td>3</td>
</tr>
<tr>
<td>and GEOS F314</td>
<td>and Structural Geology</td>
<td></td>
</tr>
</tbody>
</table>

• Submit GRE scores.

Program Requirements

Minimum Requirements for Geological Engineering M.S. Degree (Thesis Option): 30 credits

THESIS OPTION

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>GE F430</td>
<td>Geomechanical Instrumentation</td>
<td>4</td>
</tr>
<tr>
<td>GE F440</td>
<td>Slope Stability</td>
<td>3</td>
</tr>
<tr>
<td>GE F610</td>
<td>Subsurface Hydrology</td>
<td>3</td>
</tr>
<tr>
<td>GE F620</td>
<td>Advanced Groundwater Hydrology</td>
<td>3</td>
</tr>
<tr>
<td>GE F622</td>
<td>Advanced Soil Physics</td>
<td>3</td>
</tr>
<tr>
<td>GE F624</td>
<td>Stochastic Hydrology and Geohydrology</td>
<td>3</td>
</tr>
<tr>
<td>GE F626</td>
<td>Thermal Geotechnics</td>
<td>3</td>
</tr>
<tr>
<td>GE F635</td>
<td>Advanced Geostatistical Applications</td>
<td>3</td>
</tr>
<tr>
<td>GE F665</td>
<td>Advanced Geological Materials Engineering</td>
<td>3</td>
</tr>
<tr>
<td>GE F666</td>
<td>Advanced Engineering Geology</td>
<td>3</td>
</tr>
<tr>
<td>GE F668</td>
<td>Tunneling Geotechniques</td>
<td>3</td>
</tr>
<tr>
<td>MIN F621</td>
<td>Advanced Mineral Economics</td>
<td>3</td>
</tr>
<tr>
<td>MIN F673</td>
<td>Advanced Rock Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>Geological engineering courses and technical electives</td>
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<tr>
<td>GE F692</td>
<td>Graduate Seminar</td>
<td>1</td>
</tr>
<tr>
<td>GE F699</td>
<td>Thesis</td>
<td>6</td>
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</tbody>
</table>
Minimum Requirements for Geological Engineering M.S. Degree (Non-thesis Option): 30 credits

NON-THESIS OPTION

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td></td>
<td>General University Requirements</td>
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<tr>
<td></td>
<td>Complete the general university requirements. (p. 296)</td>
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</tr>
<tr>
<td></td>
<td>Master’s Degree Requirements</td>
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<tr>
<td></td>
<td>Complete the master’s degree requirements. (p. 298)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Non-thesis Geological Engineering Program Requirements</td>
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<tr>
<td></td>
<td>Complete five from the following:</td>
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<tr>
<td>GE F430</td>
<td>Geomechanical Instrumentation</td>
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<tr>
<td>GE F440</td>
<td>Slope Stability</td>
<td></td>
</tr>
<tr>
<td>GE F610</td>
<td>Subsurface Hydrology</td>
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<tr>
<td>GE F620</td>
<td>Advanced Groundwater Hydrology</td>
<td></td>
</tr>
<tr>
<td>GE F622</td>
<td>Advanced Soil Physics</td>
<td></td>
</tr>
<tr>
<td>GE F624</td>
<td>Stochastic Hydrology and Geohydrology</td>
<td></td>
</tr>
<tr>
<td>GE F626</td>
<td>Thermal Geotechnics</td>
<td></td>
</tr>
<tr>
<td>GE F635</td>
<td>Advanced Geostatistical Applications</td>
<td></td>
</tr>
<tr>
<td>GE F665</td>
<td>Advanced Geological Materials Engineering</td>
<td></td>
</tr>
<tr>
<td>GE F666</td>
<td>Advanced Engineering Geology</td>
<td></td>
</tr>
<tr>
<td>GE F668</td>
<td>Tunneling Geotechniques</td>
<td></td>
</tr>
<tr>
<td>MIN F621</td>
<td>Advanced Mineral Economics</td>
<td></td>
</tr>
<tr>
<td>MIN F673</td>
<td>Advanced Rock Mechanics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Geological engineering courses and technical electives</td>
<td>11</td>
</tr>
<tr>
<td>GE F692</td>
<td>Graduate Seminar</td>
<td>1</td>
</tr>
<tr>
<td>GE F698</td>
<td>Non-thesis Research/Project</td>
<td>6</td>
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</tbody>
</table>

Geophysics

M.S., Ph.D. Degrees

The geophysics program at UAF is closely connected with the Geophysical Institute and is optimally positioned to investigate a wide array of geophysical phenomena. Students have the option to obtain a general geophysics degree or to choose one of three concentrations to focus their studies.

Upon graduation, a student is expected to be able to:

1. address geophysical problems using the principles of conservation of energy, mass and momentum using both physical and mathematical concepts, particularly with respect to mathematical techniques such as linear algebra, vector calculus and partial differential equations;
2. explain physical processes underlying the Earth's global-scale features, including plate tectonics and the gravitational and magnetic fields;
3. describe common geophysical problems and assess the advantages and disadvantages of various theoretical, modeling or observational approaches to solving them, including identifying key assumptions underlying each approach;
4. frame well-defined scientific research questions and apply modern computational methods and observational techniques necessary to conduct the research;
5. publish and present results in peer-reviewed articles, scientific reports, and at national and international scientific meetings using oral and written skills developed through regular faculty feedback.

Minimum Requirements for Geophysics Degrees: M.S.: 30 credits; Ph.D.: 18 thesis credits

College of Natural Science and Mathematics
Department of Geosciences (http://www.uaf.edu/geology/)
907-474-7565

Programs

Degrees

- M.S., Geophysics (p. 337)
- Ph.D., Geophysics (p. 338)

M.S., Geophysics

Admission Requirements

Complete the following admission requirements:

- Submit GRE scores.
- Complete a background at least to the level of a B.S. concentration in geology, geophysics or an appropriate physical science or engineering.
- Complete MATH F302
- Recommended: MATH F314, MATH F432, PHYS F220

Program Requirements

Minimum Requirements for Geophysics M.S.: 30 credits

CONCENTRATIONS: SOLID-EARTH GEOPHYSICS (P. 338); SNOW, ICE AND PERMAFROST GEOPHYSICS (P. 338); REMOTE SENSING GEOPHYSICS (P. 338)

<table>
<thead>
<tr>
<th>Code</th>
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</thead>
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<tr>
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<tr>
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<tr>
<td></td>
<td>Complete the master’s degree requirements. (p. 298)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete 6-12 thesis credits</td>
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</tr>
<tr>
<td></td>
<td>Complete any deficiencies concurrently with this degree.</td>
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<tr>
<td></td>
<td>Submit a written thesis proposal and pass an oral comprehensive examination centered on this proposal.</td>
<td></td>
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<tr>
<td></td>
<td>Complete and submit a written thesis and pass an oral defense of thesis.</td>
<td></td>
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<tr>
<td></td>
<td>Geophysics Core Requirements</td>
<td></td>
</tr>
<tr>
<td>GEOS F631</td>
<td>Foundations of Geophysics</td>
<td>4</td>
</tr>
<tr>
<td>GEOS F682</td>
<td>Geoscience Seminar (fall semester)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Complete 6 credits from relevant graduate-level courses agreed by the advisory committee or select one from the following concentrations:</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Solid-Earth Geophysics</td>
<td></td>
</tr>
</tbody>
</table>
Ph.D., Geophysics

Admission Requirements

Complete the following admission requirements:

- Submit GRE scores.
- Complete a master’s degree in geology, geophysics or an appropriate field of physical science or engineering.

ADMISSION TO PH.D. GEOPHYSICS PROGRAM DIRECTLY FROM A BACHELOR’S PROGRAM

Entering graduate students whose highest earned degree is the baccalaureate are normally admitted as Master of Science candidates. However, exceptionally able and accomplished students in this category are eligible for direct admission to the Ph.D. program. For direct admission from the baccalaureate to the Ph.D. program, a student must receive approval from the graduate admission committee and also meet one of three criteria:

1. At least one first-authored manuscript published, accepted or submitted for publication in a peer-reviewed scientific journal.
2. Receipt of an NSF, NIH or similar prestigious pre-doctoral fellowship.
3. Demonstrated research proficiency AND either
   a. attained a GPA of at least 3.5 in mathematics and science courses at the undergraduate level, or
   b. scored at or above the 80th percentile in two of three categories in the GRE.

The requirement of demonstrated research proficiency can be waived for exceptionally promising students. In this case, the student is required to complete a research or review paper focusing on a thesis-related topic approved by the graduate advising committee. The paper should be roughly 4,000-5,000 words and must be submitted and approved by the advisory committee within the first three semesters to maintain Ph.D. status. Failure will result in changing the student’s status to M.S. candidate.

After admission, M.S. candidates may, in exceptional cases, petition for conversion to the Ph.D. program if they satisfy one of the above criteria. Such petitions must be approved both by the student’s current (M.S.) and proposed (Ph.D.) advisory committee and the department director or designee.

Program Requirements

Minimum Requirements for Geophysics

Ph.D.: 18 thesis credits

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
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<td></td>
<td>Complete the general university requirements. (p. 290)</td>
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</tr>
<tr>
<td></td>
<td><strong>Master’s Degree Requirements</strong></td>
<td></td>
</tr>
<tr>
<td>GEOS F631</td>
<td>Foundations of Geophysics</td>
<td>4</td>
</tr>
<tr>
<td>GEOS F682</td>
<td>Geoscience Seminar (fall semester)</td>
<td>1</td>
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<td></td>
<td>Complete 6 credits from relevant graduate-level courses agreed by the advisory committee, or select one of the following concentrations:</td>
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<td></td>
<td><strong>Solid-Earth Geophysics</strong></td>
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<tr>
<td>GEOS F604</td>
<td>Seismology</td>
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<tr>
<td>GEOS F605</td>
<td>Geochronology</td>
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<tr>
<td>GEOS F626</td>
<td>Applied Seismology</td>
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<tr>
<td>GEOS F655</td>
<td>Tectonic Geodesy</td>
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<tr>
<td>GEOS F671</td>
<td>Volcano Seismology</td>
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<td></td>
<td><strong>Snow, Ice and Permafrost Geophysics</strong></td>
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<tr>
<td>PHYS F614</td>
<td>Ice Physics</td>
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<tr>
<td>GEOS F615</td>
<td>Sea Ice</td>
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<tr>
<td>GEOS F616</td>
<td>Permafrost</td>
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<td>GEOS F617</td>
<td>Glaciers</td>
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<td></td>
<td><strong>Remote Sensing</strong></td>
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<tr>
<td>ATM F613</td>
<td>Atmospheric Radiation</td>
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<tr>
<td>GEOS F622</td>
<td>Digital Image Processing in the Geosciences</td>
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<td>GEOS F639</td>
<td>InSar and Its Applications</td>
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<tr>
<td>GEOS F657</td>
<td>Microwave Remote Sensing</td>
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<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td></td>
<td><strong>ADMISSION TO PH.D. GEOPHYSICS PROGRAM DIRECTLY FROM A BACHELOR’S PROGRAM</strong></td>
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<td></td>
<td>Entering graduate students whose highest earned degree is the baccalaureate are normally admitted as Master of Science candidates. However, exceptionally able and accomplished students in this category are eligible for direct admission to the Ph.D. program. For direct admission from the baccalaureate to the Ph.D. program, a student must receive approval from the graduate admission committee and also meet one of three criteria:</td>
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<td>1. At least one first-authored manuscript published, accepted or submitted for publication in a peer-reviewed scientific journal.</td>
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<td></td>
<td>2. Receipt of an NSF, NIH or similar prestigious pre-doctoral fellowship.</td>
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<td></td>
<td>3. Demonstrated research proficiency AND either</td>
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<td></td>
<td>a. attained a GPA of at least 3.5 in mathematics and science courses at the undergraduate level, or</td>
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<td></td>
<td>b. scored at or above the 80th percentile in two of three categories in the GRE.</td>
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<td>The requirement of demonstrated research proficiency can be waived for exceptionally promising students. In this case, the student is required to complete a research or review paper focusing on a thesis-related topic approved by the graduate advising committee. The paper should be roughly 4,000-5,000 words and must be submitted and approved by the advisory committee within the first three semesters to maintain Ph.D. status. Failure will result in changing the student’s status to M.S. candidate.</td>
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<td></td>
<td>After admission, M.S. candidates may, in exceptional cases, petition for conversion to the Ph.D. program if they satisfy one of the above criteria. Such petitions must be approved both by the student’s current (M.S.) and proposed (Ph.D.) advisory committee and the department director or designee.</td>
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<td></td>
<td><strong>Program Requirements</strong></td>
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<td></td>
<td><strong>Minimum Requirements for Geophysics</strong></td>
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<td></td>
<td>Ph.D.: 18 thesis credits</td>
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<td></td>
<td><strong>General University Requirements</strong></td>
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<td></td>
<td>Complete the general university requirements. (p. 290)</td>
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<td></td>
<td><strong>Master’s Degree Requirements</strong></td>
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<tr>
<td>ATM F613</td>
<td>Atmospheric Radiation</td>
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<tr>
<td></td>
<td>Complete 7 credits of courses approved by the advisory committee</td>
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</tr>
<tr>
<td>GEOS F699</td>
<td>Thesis</td>
<td>6</td>
</tr>
<tr>
<td>Thesis credits or credits from courses that are F400-level or higher.</td>
<td>6</td>
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<tr>
<td></td>
<td>The minimum credits required is 30. The required M.S. course work above represents 18 credits. The minimum number of thesis credits required is 6. The remaining 6 credits can either be thesis credits or courses that are F400-level or higher.</td>
<td></td>
</tr>
</tbody>
</table>
GEOS F622  Digital Image Processing in the Geosciences
GEOS F639  InSar and Its Applications
GEOS F654  Visible and Infrared Remote Sensing
GEOS F657  Microwave Remote Sensing

Advanced Skills Categories
Complete 3 credits each in two of the following four categories:

Digital Signal Analysis and Remote Sensing
GEOS F622  Digital Image Processing in the Geosciences
GEOS F654  Visible and Infrared Remote Sensing
GEOS F657  Microwave Remote Sensing

Statistics and Parameter Estimation
GEOS F627  Inverse Problems and Parameter Estimation
STAT F401  Regression and Analysis of Variance
STAT F461  Applied Multivariate Statistics
ATM F610  Analysis Methods in Meteorology and Climate

Mathematical Methods
MATH F432  Introduction to Partial Differential Equations
MATH F614  Numerical Linear Algebra
MATH F615  Numerical Analysis of Differential Equations
MATH F661  Optimization
ME F601  Finite Element Analysis in Engineering

Skills course
One graduate-level advanced skills course approved by the student's advisory committee

Ph.D. Degree Requirements
Complete the Ph.D. degree requirements. (p. 293)
Complete and pass a written and oral comprehensive examination.
Complete and submit a written thesis proposal for approval.
Complete a research program as arranged with the graduate advisory committee.

Minimum Requirements for Geoscience Degrees: M.S.: 30 credits; Ph.D.: 18 thesis credits

College of Natural Science and Mathematics
Department of Geosciences (http://www.uaf.edu/geology/)
907-474-7565

Programs
Degrees
- M.S., Geoscience (p. 339)
- Ph.D., Geoscience (p. 340)

M.S., Geoscience
Admission Requirements
Complete the following admission requirements:
- Submit GRE scores.
- Complete a background at least to the level of a B.S. concentration in geology, geophysics or earth science.

Program Requirements
Minimum Requirements for Geoscience
M.S.: 30 credits

CONCENTRATIONS: GEOGRAPHY (P. 339), GEOLOGY (P. 339)

Geoscience
Overview
M.S., Ph.D. Degrees
Graduates in geoscience have broad backgrounds in Earth sciences or geography. There are concentrations available in geology and geography, and requirements are flexible enough to allow students to customize the curriculum.

There are about 40 professional geoscientists in residence on campus, and graduate students normally participate in the ongoing research of these professionals. Teaching and research assistantships are available to graduate students in many of these areas.
Ph.D., Geoscience

Admission Requirements
Complete the following admission requirement:
- Submit GRE scores.

Program Requirements
Minimum Requirements for Geoscience
Ph.D.: 18 credits

<table>
<thead>
<tr>
<th>CONCENTRATIONS: GEOGRAPHY, GEOLOGY</th>
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Note: In addition to courses listed under the geoscience program, students should check the course listings under the College of Engineering and Mines and the marine science program.

Note: In addition to the facilities available directly through the instructional program, UAF has active research laboratories in the fields of seismology, volcanology, paleomagnetism, isotope geochronology, glaciology and ice physics in the Geophysical Institute (see Geophysical Institute (p. 21) under Research). These laboratories can frequently provide topics for M.S. and Ph.D. theses. Other laboratories are also available in other divisions on campus, as listed under Research Institutes and Centers (p. 20).

Indigenous Studies

M.A., Ph.D. Degrees

The Indigenous studies M.A. degree program emphasizes Indigenous knowledge systems. The program is designed to provide graduate students from various fields of interest an opportunity to pursue in-depth study of the role and contributions of Indigenous knowledge in the contemporary world. Students are expected to demonstrate the ability to work effectively with Indigenous people in their studies.

Indigenous studies doctoral candidates will participate in research activities across a variety of UAF academic disciplines and applied fields. Students are encouraged to engage in comparative studies with other Indigenous peoples around the world and to focus their dissertation research on issues of relevance to Alaska and the Arctic. Using the interdisciplinary Ph.D. model of academic assignment, the student’s home base will be in the school or college of the student’s major advisor, who also serves as an affiliate faculty member for the program.

The program objectives and its curriculum center around six thematic areas of study: Indigenous studies/research, Indigenous knowledge systems, Indigenous education/pedagogy, Indigenous languages, Indigenous leadership and Indigenous sustainability. Students may focus on one of these areas or draw on multiple themes in collaboration with their graduate committee to develop their areas of knowledge and dissertation research. In collaboration with the graduate committee, each student will develop a program of course work and research that produces a unique intellectual contribution to the applied fields associated with Indigenous studies.

Minimum Requirements for Indigenous Studies Degrees: M.A.: 36 credits; Ph.D.: 48 credits

College of Liberal Arts
Center for Cross-cultural Studies (http://www.uaf.edu/cxcs/)
907-474-1902

Programs

Degree
- M.A., Indigenous Studies (p. 340)
- Ph.D., Indigenous Studies (p. 341)

M.A., Indigenous Studies

Admission Requirements
In general, applicants may be admitted to a graduate program if they have a bachelor’s degree from an accredited institution with at least a 3.0 (B) cumulative undergraduate GPA and a 3.0 (B) GPA in their major. Some programs may require the Graduate Record Exam or Graduate Management Admission Test and other special criteria for admission.

For the purposes of admission to graduate study, all grades, including those generated from retaking a course, are included in calculating GPA.

If an applicant meets the minimum requirements for the university, the Office of Admissions sends the completed application to the academic department. Program heads and/or committees in fields of interest will determine the adequacy of the student’s preparation and whether or not departmental facilities are sufficient for their aims.

Information on specific degree programs is available from academic departments or by contacting the Graduate School (http://www.uaf.edu/gradsch/) at 907-474-7464 or uaf-grad-school@alaska.edu.

Program Requirements

Minimum Requirements for Indigenous Studies M.A. Degree: 36 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td></td>
<td>General University Requirements</td>
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<td></td>
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<tr>
<td></td>
<td>Master’s Degree Requirements</td>
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<tr>
<td></td>
<td>Complete the master’s degree requirements. (p. 298)</td>
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<tr>
<td></td>
<td>Indigenous Studies Program Requirements</td>
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<tr>
<td></td>
<td>Complete at least 6 credits in a field setting, including minimum of one week camp with elders.</td>
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</tbody>
</table>
Complete at least 36 semester hours beyond the bachelor's degree level.

- Students may transfer a maximum of 9 hours from another university into their program.

Complete at least 30 of the 36 semester hours at the F600 level.

Satisfactorily complete a comprehensive examination.

**Core Courses**

- CCS F604 Documenting Indigenous Knowledge 3
- CCS F608 Indigenous Knowledge Systems 3
- CCS F612 Traditional Ecological Knowledge 3
- CCS/ED F690 Seminar in Cross-cultural Studies 3

**Cross-cultural Studies Specialization Courses**

Complete at least one from the following: 3

- ANS/ED F461 Native Ways of Knowing
- CCS/ED F610 Education and Cultural Processes
- RD F425 Cultural Resource Issues

**Electives**

Complete a minimum of 15 credits of approved electives to provide specialization depth: 15

Examples of approved electives:

- ANS F475 Alaska Native Social Change
- CCS F602 Cultural and Intellectual Property Rights
- CCS/ED F603 Field Study Research Methods
- CCS/ED F611 Culture, Cognition and Knowledge Acquisition
- CCS/ED F613 Alaska Standards for Culturally Responsive Schools
- CCS F698 Non-thesis Research/Project 6

**Ph.D., Indigenous Studies**

**Program Requirements**

**Minimum Requirements for Indigenous Studies Ph.D.: 48 credits**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td><strong>General University Requirements</strong></td>
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<tr>
<td>Complete the general university requirements. (p. 295)</td>
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<tr>
<td><strong>Ph.D. Degree Requirements</strong></td>
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<tr>
<td>Complete the Ph.D. degree requirements. (p. 292)</td>
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<tr>
<td>Complete required and elective courses.</td>
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<tr>
<td>ANL/CCS/ED/RD F608</td>
<td>Indigenous Knowledge Systems</td>
<td>3</td>
</tr>
<tr>
<td>ANL/CCS/ED/RD F609</td>
<td>Seminar in Cross-cultural Studies</td>
<td>3</td>
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<tr>
<td><strong>Indigenous Studies Program Requirements</strong></td>
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<tr>
<td>Complete two from the following:</td>
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<tr>
<td>ANL F601</td>
<td>Seminar in Language Revitalization</td>
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<tr>
<td>ANTH F631</td>
<td>Linguistic Anthropology: Language, Thought and Action</td>
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<td>ANTH F646</td>
<td>Economic Anthropology</td>
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<tr>
<td>ANTH/BIOL/ ECON/NRM F647</td>
<td>Global to Local Sustainability</td>
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<tr>
<td>ANTH/BIOL/ ECON/NRM F649</td>
<td>Integrated Assessment and Adaptive Management</td>
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<tr>
<td>ANTH/ACNS F610</td>
<td>Northern Indigenous Peoples and Contemporary Issues</td>
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<tr>
<td>CCS F602</td>
<td>Cultural and Intellectual Property Rights</td>
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<td>CCS/ED F610</td>
<td>Education and Cultural Processes</td>
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<tr>
<td>CCS/ED F611</td>
<td>Culture, Cognition and Knowledge Acquisition</td>
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<td>CCS F612</td>
<td>Traditional Ecological Knowledge</td>
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<td>ED/LING F621</td>
<td>Cultural Aspects of Language Acquisition</td>
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<td>ED F616</td>
<td>Education and Socioeconomic Change</td>
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<td>ED F620</td>
<td>Language, Literacy and Learning</td>
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<td>ED F660</td>
<td>Educational Administration in Cultural Perspective</td>
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<tr>
<td>RD F600</td>
<td>Circumpolar Indigenous Leadership Symposium</td>
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<td>RD F601</td>
<td>Political Economy of the Circumpolar North</td>
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<tr>
<td>RD F651</td>
<td>Management Strategies for Rural Development</td>
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<td>RD F652</td>
<td>Indigenous Organization Management</td>
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<tr>
<td>ANL/CCS/ED/RD F699</td>
<td>Thesis</td>
<td>18</td>
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</table>

**Note:** Recommended additional academic experience: Students are encouraged to enroll in a minimum of one semester of course work at a partner institution with program offerings related to their area of specialization. Students are encouraged to make at least one formal academic presentation at a statewide, national or international meeting, as well as a community-level presentation in Alaska. Students are encouraged to study a language other than English, as appropriate for the thematic area in which they are enrolled.

**Interdisciplinary Studies**

**M.A., M.S., Ph.D. Degrees**

The UAF interdisciplinary program provides flexibility to students who have well-defined goals that do not fit into one of the established majors offered by the university. The interdisciplinary studies program is located in the Graduate School office. Help with the application process, contact information for faculty advisors and assistance for interdisciplinary students is available at the Office of the Graduate School and Interdisciplinary Programs website (https://www.uaf.edu/gradschool/interdisciplinary/) or 907-474-7464.
Minimum Requirements for Interdisciplinary Studies Degrees: M.A. and M.S.: 30 credits; Ph.D.: 36 thesis credits

Office of the Graduate School and Interdisciplinary Programs (https://www.uaf.edu/gradschool/interdisciplinary/)
907-474-7464

Programs

Degrees

• M.A., Interdisciplinary Studies (p. 342)
• M.S., Interdisciplinary Studies (p. 342)
• Ph.D., Interdisciplinary Studies (p. 342)

M.A., Interdisciplinary Studies

Admission Requirements

Complete the admission process including the following:

• In consultation with a UAF faculty member: prepare and submit a statement of research goals and justification for interdisciplinary approach, and a preliminary graduate study plan.
• In consultation with a UAF faculty member, prepare and submit:
  a. Statement of Academic Goals
  b. Research Prospectus
  c. Proposed Graduate Study Plan
• Other materials: resume, official transcripts, two (2) academic letters of recommendation, one (1) Letter of Endorsement from one proposed MA Advisory Committee members (one from UAF committee chair).

Program Requirements

Minimum Requirements for Interdisciplinary Studies M.A. Degree: 30 credits

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<tr>
<th>Code</th>
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<td></td>
<td>Master's Degree Requirements</td>
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<tr>
<td></td>
<td>Complete the master's degree requirements. (p. 298)</td>
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<td></td>
<td>Pass a comprehensive examination.</td>
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</table>

M.S., Interdisciplinary Studies

Admission Requirements

Complete the admission process including the following:

• In consultation with a UAF faculty member, prepare and submit:
  a. Statement of Academic Goals
  b. Research Prospectus
  c. Proposed Graduate Study Plan
• Other materials: resume, official transcripts, two (2) academic letters of recommendation, one (1) Letter of Endorsement from one proposed MA Advisory Committee members (one from UAF committee chair).

Program Requirements

Minimum Requirements for Interdisciplinary Studies M.S. Degree: 30 credits

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<tr>
<th>Code</th>
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<td></td>
<td>Pass a comprehensive examination.</td>
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Ph.D., Interdisciplinary Studies

Admission Requirements

Complete the following admission process requirements:

• Submit GRE scores (scores must be less than 5 years old).
• Complete a master’s degree.
• In consultation with a UAF faculty member, prepare and submit:
  • Statement of Academic Goals
  • Research Prospectus
  • Proposed Graduate Study Plan
• Other materials: resume, official transcripts, two (2) academic letters of recommendation, two (2) letters of endorsement from two proposed Ph.D. advisory committee members (one from UAF committee chair and one from a different department).

Program Requirements

Minimum Requirements for Interdisciplinary Studies Ph.D.: 36 credits

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<td>Pass both a written and oral comprehensive exam</td>
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<td>Thesis credits (F699)</td>
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<td>Course work</td>
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<td>Additional course work or thesis credits</td>
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</tbody>
</table>

1 The oral comprehensive exam may be an oral defense of the written research proposal.
2 Complete course work in thematic areas as determined by the advisory committee.

Justice Administration

M.A. Degree

The justice discipline represents a melding of theoretical and applied concepts, and the M.A. degree in justice administration reflects that dichotomy. Consequently, students explore theoretical models associated
with different aspects of the criminal justice system, but also study the structure and administration of the criminal justice system.

The M.A. degree in justice administration has been designed as a web-based degree program in order to accommodate the needs of justice professionals for whom taking a two-year leave of absence from their profession is not feasible, or for whom relocating to the Fairbanks vicinity is not possible. The M.A. degree program has attracted justice professionals from throughout the country who have found the flexibility of a web-based format useful.

Minimum Requirements for Justice Administration Master's Degree: 30 credits

Learn more about the master's degree in justice administration (https://uaf.edu/academics/programs/masters/justice-administration.php), including an overview of the program, career opportunities and more.

College of Liberal Arts
Justice Program (http://www.uaf.edu/justice/)
907-474-5500

Programs

Degree

- M.A., Justice Administration (p. 343)

M.A., Justice Administration

Overview

The M.A. in justice administration prepares students for increasingly responsible roles in the management of justice-related agencies and organizations.

Applications are reviewed on a continual basis.

Admission Requirements

Complete the following admission requirements:

- Completion of a bachelor’s degree from an accredited institution.
- Students with a GPA above 2.75 will be required to submit a score from the Watson-Glaser Critical Thinking Exam.
- Any students with a GPA lower than 2.75 will be required to submit scores from the GRE.

Program Requirements

Minimum Requirements for Justice Administration M.A.: 30 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>General University Requirements</strong></td>
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</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (p. 296)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Master's Degree Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the master’s degree requirements. (p. 298)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Justice Administration Program Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete a minimum of 18 graduate UAF credits.</td>
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</tr>
<tr>
<td></td>
<td>Receive a passing grade on a written comprehensive exam proctored in conjunction with completion of JUST F690.</td>
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</tr>
<tr>
<td></td>
<td>Complete a non-research path which consists of 30 units of coursework; or</td>
<td></td>
</tr>
</tbody>
</table>

Complete a research path which consists of 30 units of coursework where 6 units are research project or thesis work.

If a student elects to complete a thesis or project, receive a passing grade on an oral defense examination of a thesis or project.

Complete the following:

- JUST F605 Administration and Management of Criminal Justice Organizations 3
- JUST F610 Ethics in Criminal Justice Management 3
- JUST F615 Justice Program Planning/ Evaluation and Grant Writing 3
- JUST F620 Personnel Management in Criminal Justice 3
- JUST F625 Legal Aspect of Criminal Justice Management 3
- JUST F640 Community/Restorative Justice 3
- JUST F690 Seminar in Critical Issues and Criminal Justice Policy 3

Complete 9 units JUST electives; or from approved areas: 9

- 6 units of JUST F698 (Project); or 6 units of JUST F699 (Thesis)
- Any approved 600-level ANTH, COJO, HSEM and MBA (or other approved discipline) course; or
- 400-level JUST, ANTH, BA, COJO, HSEM or LEAD electives (up to 6 units); or
- 400-level (up to six units) or graduate-level (up to nine units) credits may be used as substitutes if transferred from the FBI National Academy, Command and General Staff College, Command College, Southern Police Institute or similar programs approved by the American Council on Education (e.g., graduate certificate relevant to justice from another institution)

Linguistics, Applied

M.A. Degree

Linguistics is the study of language and covers a variety of subjects including theories of grammar and how we produce language. It has a number of applications, including language teaching, teaching of English as a second or foreign language, and documentation of endangered languages.

Graduate students in applied linguistics may pursue a general program or develop a concentration in either language documentation or second language acquisition and teacher education. Students are expected either to have or to develop proficiency in at least one language other than English, as demonstrated by a proficiency exam or a comparable measure determined by the student's graduate committee. Students pursuing certification in Second Language Acquisition and Teacher Education must demonstrate proficiency in the language they intend to teach. The general program provides students with a practical foundation in linguistics but remains broad enough to allow exploration of a variety of possible thesis topics.

Language documentation is designed to provide practical foundations in linguistics, techniques of fieldwork and documentation, with special focus on Alaska Native languages.
Second language acquisition and teacher education is designed for students interested in teaching English as a second language, a foreign or Alaska Native language. It is designed to provide theoretical and practical foundations in second language acquisition, language teaching, materials development, and language assessment. Students may earn a postcertification endorsement in second language acquisition, bilingual education and literacy (SLABEL).

SLABEL is an innovative master's degree program that combines course work in literacy with second language acquisition. Candidates will receive an interdisciplinary education that will have immediate application for K-12 language arts, English, bilingual, ELL and content-area teachers, working in increasingly complex bilingual, multilingual and multi-modal classroom environments. Candidates simultaneously earn a master's degree and a K-12 statewide endorsement based on TESOL standards, Alaska Teacher Standards and Alaska Cultural Standards. The program may be completed in either education (M. Ed.) (p. 321) or applied linguistics (M.A.). While program requirements are identical, the specific degree awarded (M.Ed. or M.A.) is determined by the advisor's department or school. Comprehensive exams and teacher-action research are required.

Minimum Requirements for Applied Linguistics M.A. Degree: 30 credits

College of Liberal Arts
Linguistics Program (http://www.uaf.edu/linguist/)  
907-474-7446

Program Degree

• M.A., Linguistics, Applied (p. 344)

M.A., Linguistics, Applied

Program Requirements

Minimum Requirements for Applied Linguistics M.A. Degree: 30 credits

CONCENTRATIONS: GENERAL (P. 344), LANGUAGE DOCUMENTATION (P. 344), SECOND LANGUAGE ACQUISITION TEACHER EDUCATION (P. 344)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td></td>
<td>General University Requirements</td>
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<td>Complete the general university requirements. (p. 296)</td>
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<td>Complete the master’s degree requirements. (p. 296)</td>
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</tr>
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<td>Applied Linguistics Program Requirements</td>
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<td></td>
<td>Complete the following:</td>
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<tr>
<td>LING F600</td>
<td>Research Methods for Applied Linguistics</td>
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<tr>
<td>LING F601</td>
<td>Principles of Linguistic Analysis</td>
<td>3</td>
</tr>
<tr>
<td>LING F698</td>
<td>Non-thesis Research/Project or LING F699</td>
<td>6</td>
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<td></td>
<td>Thesis</td>
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<td>Concentrations</td>
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<td>Complete one of the following concentrations:</td>
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<td></td>
<td>General</td>
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<tr>
<td></td>
<td>Language Documentation</td>
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</table>

Second Language Acquisition Teacher Education

Electives

Complete three electives approved by committee. 9

CONCENTRATIONS

General

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<td>Complete the following:</td>
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<td>LING F602</td>
<td>Second Language Acquisition</td>
<td>3</td>
</tr>
<tr>
<td>LING F603</td>
<td>Phonetics and Phonology</td>
<td>3</td>
</tr>
<tr>
<td>LING F604</td>
<td>Morphology and Syntax</td>
<td>3</td>
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Language Documentation

<table>
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<th>Title</th>
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<td>Complete the following:</td>
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<td>LING F603</td>
<td>Phonetics and Phonology</td>
<td>3</td>
</tr>
<tr>
<td>LING F604</td>
<td>Morphology and Syntax</td>
<td>3</td>
</tr>
<tr>
<td>LING F631</td>
<td>Field Methods in Descriptive Linguistics</td>
<td>3</td>
</tr>
<tr>
<td>or ED F683</td>
<td>Instruction and Assessment in Literacy</td>
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Second Language Acquisition Teacher Education

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<td>Complete the following:</td>
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<tr>
<td>LING F602</td>
<td>Second Language Acquisition</td>
<td>3</td>
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<tr>
<td>LING F610</td>
<td>Theory and Methods of Second Language Teaching</td>
<td>3</td>
</tr>
<tr>
<td>LING F611</td>
<td>Second Language Materials and Assessment</td>
<td>3</td>
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</table>

ELECTIVE COURSES

This is a nonexhaustive list of possible electives.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ED F601</td>
<td>Introduction to Applied Social Science Research 2</td>
<td>3</td>
</tr>
<tr>
<td>ED F670</td>
<td>Developing Literacy. ECE-12 2</td>
<td>3</td>
</tr>
<tr>
<td>ED F673</td>
<td>Literacy in the Content Area 2</td>
<td>3</td>
</tr>
<tr>
<td>ED F683</td>
<td>Instruction and Assessment in Literacy 3</td>
<td>3</td>
</tr>
<tr>
<td>LING F441</td>
<td>Topics in Linguistics 1</td>
<td>3</td>
</tr>
<tr>
<td>LING/FL F451</td>
<td>English Second Language Teaching Practicum 1</td>
<td>3</td>
</tr>
<tr>
<td>LING F602</td>
<td>Second Language Acquisition</td>
<td>3</td>
</tr>
<tr>
<td>LING F603</td>
<td>Phonetics and Phonology</td>
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<tr>
<td>LING F604</td>
<td>Morphology and Syntax</td>
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</tr>
<tr>
<td>LING F610</td>
<td>Theory and Methods of Second Language Teaching</td>
<td>3</td>
</tr>
<tr>
<td>LING F611</td>
<td>Second Language Materials and Assessment</td>
<td>3</td>
</tr>
<tr>
<td>LING F631</td>
<td>Field Methods in Descriptive Linguistics 3</td>
<td></td>
</tr>
<tr>
<td>LING F650</td>
<td>Language Policy and Planning</td>
<td>3</td>
</tr>
</tbody>
</table>

Per Graduate School rules, up to 6 credits of committee-approved elective credit at the 400 level may be counted toward a graduate degree.
Marine Biology

M.S., Ph.D. Degrees

The marine biology graduate program focuses on the ecology, physiology and biochemistry/molecular biology of marine organisms. Students may pursue either an M.S. or Ph.D. degree in marine biology. Graduate students are afforded excellent opportunities for laboratory and field research through the Institute of Marine Science. Laboratory facilities are available in Fairbanks, the Seward Marine Center, the Juneau Center, the Kodiak Seafood and Marine Science Center and at the Kasitsna Bay Laboratory. Opportunities for field work are available on the coastal research vessel Nanuq, which operates in Resurrection Bay.

Students considering graduate study in marine biology should have a strong background in biology, molecular biology or biochemistry. Students are admitted on the basis of their ability and the capability of the program to meet their particular interests and needs. Faculty review requests for admission throughout the year. Stipends for financial support are awarded competitively and limited fellowship support is also available.

Minimum Requirements for Marine Biology Degrees: M.S.: 30 credits; Ph.D.: 18 thesis credits

College of Fisheries and Ocean Sciences (http://www.uaf.edu/cfos/academics/)
Graduate Program in Marine Sciences and Limnology
907-474-7289

Programs

Degrees

- M.S., Marine Biology (p. 345)
- Ph.D., Marine Biology (p. 345)

M.S., Marine Biology

Admission Requirements

Complete the following admission requirement:

- Submit GRE scores.

Program Requirements

Students must earn a B- grade or better in the core courses of the degree program before being eligible to take the comprehensive exam.

Minimum Requirements for Marine Biology M.S. Degree: 30 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSL F610</td>
<td>Marine Biology</td>
<td>3</td>
</tr>
<tr>
<td>MSL F615</td>
<td>Physiology of Marine Organisms</td>
<td>3</td>
</tr>
<tr>
<td>MSL F650</td>
<td>Biological Oceanography</td>
<td>3</td>
</tr>
<tr>
<td>MSL F651</td>
<td>Marine Biology and Ecology Field Course (or an acceptable substitution)</td>
<td>4</td>
</tr>
<tr>
<td>MSL F692</td>
<td>Seminar</td>
<td>3</td>
</tr>
</tbody>
</table>

1 The following is the official GPMSL policy regarding acceptable substitutions for MSL F651 to meet the field course requirement for the M.S. marine biology program:

- A combination of MSL F421 plus a minimum of eight days (for 2 credits through a pre-approved independent study course) aboard an oceanographic vessel or a coastal field station conducting biological research unrelated to the student’s thesis research, if approved in advance by the Graduate Advisory Committee, Master’s Comprehensive Exam Committee, and the chief scientist of the cruise. (Note: Assuming the student spends 10 hours per day on the vessel/field station, the student will accumulate 80 hours of experience, which is equivalent to a 2-credit lab course.) To obtain approval for this last substitution, the chief scientist of the cruise/field station must submit a memorandum to the Master’s Comprehensive Exam Committee stating that the student will spend at least eight days at sea substantially involved in a variety of cruise activities that are not related to the student’s thesis research, or

- MSL F655, or
- MSL F697.

Please see department for specific details on course requirements.

Ph.D., Marine Biology

Admission Requirements

Complete the following admission requirement:

- Submit GRE scores.

Program Requirements

Minimum Requirements for Marine Biology Ph.D.: 18 thesis credits

Students must earn a B- grade or better in the M.S. core courses of the degree program before being eligible to complete the qualifying exam required for this program.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
</table>
| General University Requirements
| Complete the general university requirements. (p. 295) |         |

Ph.D. Degree Requirements

Complete the Ph.D. degree requirements. (p. 292)

Marine Biology Program Requirements

Complete course work at least equivalent to that required for the M.S. degree.

Marine Studies

M.M.S. Degree

The M.M.S. degree offers a broad degree program, which can include topics such as marine ecology, organismal biology, ecosystem processes and oceanography. Students will select courses offered by the graduate program in marine sciences and limnology and a variety of electives, which can also be from the fisheries program or the statistics or biology and wildlife departments. While the M.M.S. degree is primarily based...
on a project instead of a research-oriented thesis, M.M.S. graduate students still are afforded excellent opportunities for laboratory and field experiences through the Institute of Marine Science. Laboratory facilities are available in Fairbanks, the Seward Marine Center, the Juneau Center and at the Kasitsna Bay Laboratory.

Students considering an M.M.S. degree should have a strong background in the various fields of oceanography, ecology, biology, molecular biology or biochemistry. Students are admitted on the basis of their ability and the capability of the program to meet their particular interests and needs. Faculty review requests for admission throughout the year. There is no financial support for students in this program.

Minimum Requirements for Marine Studies Degree: 30 credits

College of Fisheries and Ocean Sciences (http://www.uaf.edu/cfos/academics/)
Graduate Program in Marine Sciences and Limnology
907-474-7289

Programs
Degrees
- M.M.S., Marine Studies (p. 346)

M.M.S., Marine Studies

Admission Requirements
Complete the following admission requirement:
- Submit GRE scores.

Program Requirements
Minimum Requirements for Marine Studies M.M.S. Degree: 30 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>General University Requirements</td>
<td>Complete the general university requirements. (p. 296)</td>
<td></td>
</tr>
<tr>
<td>Master’s Degree Requirements</td>
<td>Complete the master’s degree requirements. (p. 298)</td>
<td></td>
</tr>
<tr>
<td>Marine Studies Program Requirements</td>
<td>Complete a project or literature review.</td>
<td></td>
</tr>
<tr>
<td>Complete at least 12 credits from the following:</td>
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<tr>
<td>MSL F419</td>
<td>Concepts in Physical Oceanography</td>
<td></td>
</tr>
<tr>
<td>MSL F610</td>
<td>Marine Biology</td>
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<tr>
<td>MSL F615</td>
<td>Physiology of Marine Organisms</td>
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<td>MSL F620</td>
<td>Physical Oceanography</td>
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<td>MSL F630</td>
<td>Geological Oceanography</td>
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<td>MSL F643</td>
<td>Fisheries Oceanography</td>
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<td>MSL F650</td>
<td>Biological Oceanography</td>
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<td>MSL F660</td>
<td>Chemical Oceanography</td>
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<td>Complete 2 credits from the following:</td>
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<tr>
<td>MSL F601</td>
<td>Professional Development</td>
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<tr>
<td>MSL F602</td>
<td>Proposal Writing</td>
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<tr>
<td>MSL F605</td>
<td>Controversies in Marine Science</td>
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<td>MSL F692</td>
<td>Seminar</td>
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<tr>
<td>Complete 2 credits from the following:</td>
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</table>

1 Students must earn a grade of B- or better in the core courses of the degree program before being eligible to take the comprehensive exam.
2 Students may also complete these credits with individual studies in place of the regularly scheduled classes listed.
3 The project or literature review will be determined by the major advisor.
4 Electives will be selected based on student interest, relatedness to degree and approval by their major advisor.

Mathematics

M.S., Ph.D. Degrees

The number of new fields in which professional mathematicians find employment grows continually. This department prepares students for careers in industry, government and education.

The M.S. in mathematics prepares students for Ph.D. work, in addition to providing a terminal degree for those planning to enter industry or education. The aim of the Ph.D. program is to provide the student with the expertise to accomplish significant research in applied or pure mathematics, as well as to provide a broad and deep professional education.

In addition to the major programs, the department provides a number of service courses in support of other programs within the university. Current and detailed information on mathematics degrees and course offerings is available from the department.

The Department of Mathematics and Statistics also offers programs in statistics (p. 360) (see separate listings).

Minimum Requirements for Mathematics Degrees: M.S.: 30-35 credits; Ph.D.: 18 thesis credits

College of Natural Science and Mathematics
Department of Mathematics and Statistics (http://www.uaf.edu/dms/)
907-474-7332

Programs
Degrees
- M.S., Mathematics (p. 346)
- Ph.D., Mathematics (p. 347)

M.S., Mathematics

Admission Requirements
Complete the following admission requirements:
Program Requirements

Minimum Requirements for Mathematics

M.S. Degree: 30-35 credits

<table>
<thead>
<tr>
<th>Code</th>
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<tbody>
<tr>
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<tr>
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<td><strong>Master's Degree Requirements</strong></td>
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<tr>
<td></td>
<td>Complete the master's degree requirements. (p. 298)</td>
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<tr>
<td></td>
<td>Complete a written comprehensive exam</td>
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<td></td>
<td><strong>Mathematics Program Requirements</strong></td>
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<td>MATH 631</td>
<td>Algebra I</td>
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<td>MATH 641</td>
<td>Real Analysis</td>
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<tr>
<td>MATH 645</td>
<td>Complex Analysis</td>
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<td>MATH 651</td>
<td>Topology</td>
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<td>MATH 692</td>
<td>Seminar</td>
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<tr>
<td></td>
<td>Complete a project or thesis.</td>
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</table>

Note: One or more credit(s) of MATH 692 during the anticipated final semester of enrollment for the degree. A graduate advisory committee may choose to waive the requirement if its purpose has been met by other experiences.

Ph.D., Mathematics

Admission Requirements

Complete the following admission requirements:

- Submit three letters of recommendation addressing the applicant’s educational background, mathematical ability, and research and teaching potential.
- Submit undergraduate transcripts.
- Submit a resume and written statement of goals.
- Submit three letters of recommendation addressing the applicant’s educational background, mathematical ability, and research and teaching potential.
- Submit undergraduate and, if applicable, graduate transcripts.
- Either submit transcripts indicating the completion of a master’s degree in mathematics or a related area or complete all the requirements for the M.S. degree in mathematics, including a project or thesis which initiates study of the Ph.D. research area.

Note: For admission to the graduate school, students who are non-native speakers of English are required to submit either TOEFL or IELTS scores. While not required, submission of GRE general test scores is recommended.

Mechanical Engineering

M.S. Degree

The mission of the Mechanical Engineering Department at UAF is to offer the highest-quality contemporary education at undergraduate and graduate levels, and to perform research as appropriate to the technical needs of the state of Alaska, the nation and the world.

Mechanical engineers conceive, plan, design and direct the manufacturing, distribution and operation of a wide variety of devices, machines and systems for energy conversion, environmental control, materials processing, transportation, materials handling and other purposes. Mechanical engineers are engaged in creative design, applied research, development and management.

The mechanical engineering program prepares its graduates for careers at the professional level; maintains, as a base, ABET accreditation of the undergraduate program; provides continuing educational opportunities for graduate engineers; is a resource of technical knowledge for the state and nation; conducts research in all areas of mechanical engineering including cold regions mechanical engineering; and offers a graduate program in mechanical engineering at the M.S. level.

The educational objectives of the department are that graduates from the mechanical engineering program must be able to apply the knowledge of mathematics, science and engineering; be able to design and conduct experiments, as well as to analyze and interpret data; be able to design a system, component or process to meet desired needs; be able to function on multi-interdisciplinary teams; be able to identify, formulate and solve engineering problems; understand professional and ethical responsibility; be able to communicate effectively; have the broad education necessary to understand the impact of engineering solutions in a global and societal context; recognize the need for, and be able to engage in, life-long learning; understand contemporary issues; and be able to use the techniques, skills and modern engineering tools necessary for engineering practice. The department ensures that each course in the curriculum plays a meaningful role in satisfying one or more of these objectives.

Minimum Requirements for Mechanical Engineering M.S. Degree: 30 credits
College of Engineering and Mines
Department of Mechanical Engineering (http://cem.uaf.edu/me/)
907-474-7136

Programs
Degree
- M.S., Mechanical Engineering (p. 348)
- B.S./M.S., Mechanical Engineering (p. 261)

M.S., Mechanical Engineering
Admission Requirements
Complete the following admission requirement:
- Submit GRE scores.
- Complete a Bachelor’s degree in Mechanical Engineering or closely-related program.

Program Requirements
Minimum Requirements for Mechanical Engineering M.S.: 30 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td></td>
<td>General University Requirements</td>
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<tr>
<td></td>
<td>Complete the general university requirements. (p. 296)</td>
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<tr>
<td></td>
<td>Master’s Degree Requirements</td>
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<tr>
<td></td>
<td>Complete the master’s degree requirements. (p. 298)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mechanical Engineering Program Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the requirements for one of the following options: 30</td>
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<tr>
<td>OPTIONS</td>
<td>Thesis option</td>
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</tr>
<tr>
<td>OPTIONS</td>
<td>Non-thesis option</td>
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Minimum Requirements for Mining Engineering M.S. Degree - Thesis Option: 30 credits

<table>
<thead>
<tr>
<th>Code</th>
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<td>Master’s Degree Requirements</td>
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<td></td>
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<td></td>
<td>Mining Engineering Program Requirements</td>
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<tr>
<td>ME F699</td>
<td>Thesis</td>
<td>6</td>
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<tr>
<td>General Electives</td>
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<tr>
<td>Program Electives</td>
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<tr>
<td>1 ME or other engineering, science, or mathematics courses approved by the student’s advisory committee.</td>
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</tr>
<tr>
<td>2 600-level Mechanical Engineering (ME) courses</td>
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Minimum Requirements for Mining Engineering M.S. Degree - Non-thesis Option: 30 credits

<table>
<thead>
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<tr>
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<tr>
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<td>Mining Engineering Program Requirements</td>
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<tr>
<td></td>
<td>Complete the following:</td>
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<tr>
<td>MIN F688</td>
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<tr>
<td>MIN F600-level courses</td>
<td>12</td>
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<tr>
<td>Technical electives</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>MIN F699</td>
<td>Thesis</td>
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<tr>
<td>1 ME or other engineering, science, or mathematics courses approved by the student’s advisory committee.</td>
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</tr>
<tr>
<td>2 600-level Mechanical Engineering (ME) courses</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

See Engineering (p. 331) for Ph.D. degree program.

Mining Engineering
M.S. Degree
The mining engineering program emphasizes engineering as it applies to the exploration and development of mineral resources and upon the economics of the business of mining. The program offers specialization in exploration, mining or mineral beneficiation.

Students are prepared for job opportunities with mining and construction companies, consulting and research firms, equipment manufacturers, investment and commodity firms in the private sector, as well as with state and federal agencies.

Mining engineers may aspire to, and achieve, the highest positions in the industry; operating or engineering management, government agency director or entrepreneur.

Minimum Requirements for Mining Engineering M.S. Degree: 30-36

College of Engineering and Mines
Department of Mining and Geological Engineering (http://cem.uaf.edu/mingeo/)
907-474-7388

Programs
Degree
- M.S., Mining Engineering (p. 348)

M.S., Mining Engineering
Program Requirements
Minimum Requirements for Mining Engineering M.S. Degree - Thesis Option: 30 credits

<table>
<thead>
<tr>
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<th>Title</th>
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<tbody>
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<td>General University Requirements</td>
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<tr>
<td></td>
<td>Complete the general university requirements. (p. 296)</td>
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<tr>
<td></td>
<td>Master’s Degree Requirements</td>
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<td></td>
<td>Complete the master’s degree requirements. (p. 298)</td>
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<tr>
<td></td>
<td>Mining Engineering Program Requirements</td>
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<td>Complete the following:</td>
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<tr>
<td>ME F688</td>
<td>Graduate Seminar I</td>
<td>1</td>
</tr>
<tr>
<td>MIN F600-level courses</td>
<td>12</td>
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<tr>
<td>Technical electives</td>
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<td></td>
</tr>
<tr>
<td>MIN F699</td>
<td>Thesis</td>
<td>6</td>
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</table>

Minimum Requirements for Mining Engineering M.S. Degree - Non-thesis Option: 30 credits

<table>
<thead>
<tr>
<th>Code</th>
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<tr>
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<td>General University Requirements</td>
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<td>Master’s Degree Requirements</td>
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<tr>
<td></td>
<td>Complete the master’s degree requirements. (p. 298)</td>
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</tr>
</tbody>
</table>
Complete the master’s degree requirements. (p. 298)

Music Performance Program Requirements
Complete the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
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<td>MIN F688</td>
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</tr>
<tr>
<td>MIN courses</td>
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<tr>
<td>Technical electives</td>
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<td>17</td>
</tr>
<tr>
<td>MIN F698</td>
<td>Non-thesis Research/Project</td>
<td>6</td>
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</table>

Music Performance
M.Mu. Degree
A student’s Master of Music Performance degree program is determined by the student in coordination with the student’s graduate advisory committee. Each graduate student’s program is designed to support the student’s individual professional interests and aspirations, consistent with program requirements. The Master of Music Performance degree program emphasizes academic achievement and superior musicianship through music performance. In addition to the curriculum, recitals and concerts provide students with a variety of musical experiences and performance opportunities.

Minimum Requirements for Degree: 36 credits

College of Liberal Arts
Department of Music (http://www.uaf.edu/music/)
907-474-7555

Programs
Degrees
• M.Mu., Music Performance (p. 349)

M.Mu., Music Performance
Admission Requirements
Complete the following admission requirements:

• Performance audition, demonstrating knowledge and ability in solo literature of various historical periods and styles. Audition may be either a live performance or a performance recorded and submitted in an unedited video format (DVD or online).
• Diagnostic examinations in music theory and history.
  • These diagnostic exams identify strengths and deficiencies in music theory, music history and music literature. Applicants will be accepted from any accredited institution; however, before admission to a degree program, all students (including UAF or UAA baccalaureate graduates) must take these preliminary examinations.

Program Requirements
Minimum Requirements for Music Performance M.Mu.: 36 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>MIN F688</td>
<td>Graduate Seminar I</td>
<td>1</td>
</tr>
<tr>
<td>MIN courses</td>
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<td>12</td>
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<tr>
<td>Technical electives</td>
<td></td>
<td>17</td>
</tr>
<tr>
<td>MIN F698</td>
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Music Performance Program Requirements
Complete the following: 14

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>MUS F601</td>
<td>Introduction to Graduate Study</td>
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<tr>
<td>MUS F625</td>
<td>Topics in Music History</td>
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<tr>
<td>MUS F632</td>
<td>Topics in Music Theory</td>
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</tr>
<tr>
<td>MUS F698</td>
<td>Non-thesis Research/Project</td>
<td>22</td>
</tr>
</tbody>
</table>

Complete at least 22 credits in a primary area of specialization, including large ensembles, small ensembles and private lessons.

1 After completing about one semester of the program, students will meet with their advisory committee to define precisely their degree course work. Each student, with the approval of the advisory committee, will develop an appropriate final research project, write a project paper and successfully defend that paper under the supervision of the advisory committee.

Note: Students with specialization in vocal performance must demonstrate proficiency in languages appropriate to their area of concentration. Proficiency will be determined by the student’s graduate committee in conjunction with the Department of Foreign Languages. Graduate students studying applied music and/or presenting recitals are governed by the Music Handbook concerning recital preparation and jury examinations.

Natural Resources and Environment
M.S., M.N.R.E. Degrees
The two master’s degrees offered by the Department of Natural Resources and Environment are designed for students desiring careers in resources management and students planning doctoral work, as well as those wishing to be better-informed citizens. The courses and curriculum for the two degrees were developed in cooperation with groups and agencies that work professionally with resource management in Alaska. These agencies, including the Alaska Department of Natural Resources, Alaska Department of Fish and Game, Agricultural Research Service, U.S. Forest Service, Bureau of Land Management, Natural Resources Conservation Service, and U.S. Fish and Wildlife Service contribute significantly to the programs by providing guest lecturers and internship and research opportunities for students.

Because of the diversity and broad scope of the field, each degree is customized according to the student’s interests and advisory committee’s recommendations. Student research projects and theses have typically been in the fields of forest management, land use planning, soil management, natural resource policy, range management, parks and recreation management, horticulture, agronomy, animal science, climate change and GIS.

A Bachelor of Science or Bachelor of Arts degree in a relevant discipline is required for acceptance into either program. Candidates should have general familiarity with the major resource fields. The student’s committee may require the student to take courses to remedy any deficiencies; these credits will not count toward the credits required for the degree.

Applicants must submit three letters of recommendation, official GRE scores, undergraduate transcripts and a statement of the applicant’s goals. The latter should include information about why you are applying for the degree, why you chose UAF and DNRE, and how such a degree
would fit into your career goals. Applications cannot be considered until all these items have been received by the Office of Admissions.

The M.S. degree in natural resources and environment is designed for those intending to pursue a career conducting research in management problems and/or to proceed on to a doctoral program. Thesis research in natural resources and environment is directed toward resource problems and based on hypothesis testing.

The master’s degree in natural resources and environment is designed to prepare students for a management career in natural resources planning and administration; communication and public information; and/or operational innovation, improvement and impact assessment. While not requiring scientific research, the work is expected to involve critical reflection, empirical inquiry and intellectual honesty. A written product and an oral presentation demonstrating sound scholarship will be required. Final acceptance of the project will be by the student’s committee and the chair of DNRE.

Minimum Requirements for Natural Resources and Environment Degrees: M.S.: 30 credits; M.N.R.E.: 35 credits

College of Natural Science and Mathematics
Department of Natural Resources and Environment (http://www.uaf.edu/snre/)
907-474-7188

Programs Degrees

- M.S., Natural Resources and Environment (p. 350)
- M.N.R.E., Natural Resources and Environment (p. 350)

M.N.R.E., Natural Resources and Environment Program Requirements

M.S., Natural Resources and Environment Program Requirements

Minimum Requirements for Master of Natural Resources and Environment M.S. Degree: 35 credits

<table>
<thead>
<tr>
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<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>NRM F601</td>
<td>Research Methods in Natural Resources Management (or an approved research methods course)</td>
<td>2</td>
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<tr>
<td>NRM F699</td>
<td>Thesis</td>
<td>6-12</td>
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</table>

Complete one from the following:

- NRM F667 Resilience Seminar I
- NRM F668 Resilience Seminar II
- NRM F692 Graduate Seminar

Statistics course at the F400 level or above

Complete and successfully defend the thesis.

1 Requirement may be met with a research methods course in a discipline related to natural resources management.
2 Requirement may be met with a statistics course in mathematical sciences or in a discipline related to natural resources management.
3 These courses will be approved by the student’s committee. Up to 6 of these credits may be F400-level courses.

Natural Resources and Sustainability Program Requirements

Minimum Requirements for Natural Resources and Environment M.S. Degree: 30 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>NRM F601</td>
<td>Research Methods in Natural Resources Management (or an approved research methods course)</td>
<td>2</td>
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<tr>
<td>NRM F699</td>
<td>Thesis</td>
<td>6-12</td>
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</table>

Complete one from the following:

- NRM F667 Resilience Seminar I
- NRM F668 Resilience Seminar II
- NRM F692 Graduate Seminar

Statistics course at the F400 level or above

Complete and successfully defend the thesis.

1 Requirement may be met with a research methods course in a discipline related to natural resources management.
2 Requirement may be met with a statistics course in mathematical sciences or in a discipline related to natural resources management.
3 These courses will be approved by the student’s committee. Up to 6 of these credits may be F400-level courses.

Natural Resources and Sustainability Ph.D. Degree

The joint Ph.D. program in natural resources and sustainability prepares future leaders as academic researchers, agency professionals and analysts of nongovernmental organizations and communities for careers at the frontiers of the science of sustainability and natural resources management.

Exploring and understanding natural resource management systems require a well-defined skill set and a clear understanding of how specific problems are linked to broader cultural, ecological and geopolitical contexts. Thus, the study of natural resources and sustainability
encompasses a spectrum of topics. The Ph.D. builds on the existing strengths of the Department of Natural Resources and Environment and School of Management faculty members to educate students in specific areas while training them to be conversant in the broader range of relevant topic areas.

The program objectives and its curriculum center around three thematic areas of study:

1. resource economics,
2. resource policy and sustainability science, and
3. forest and agricultural sciences.

Each student draws on a common set of core courses, and, with his/her graduate committee, develops a program of course work and research that produces a unique intellectual contribution to the applied field of natural resources and sustainability. Students elect to focus on one of the three thematic areas or they choose to integrate foci to develop their areas of knowledge and dissertation research.

Additional application requirement: Students are required to have a faculty sponsor upon entering the program. A letter of support from a DNRE or SOM faculty member in addition to three letters of recommendation must be submitted with the graduate application.

Minimum Requirements for Natural Resources and Sustainability
Doctorate Degree: 26 credits

College of Natural Science and Mathematics
Department of Natural Resources and Environment (http://www.uaf.edu/snre/)
School of Management
907-474-7188

Programs
Degree
- Ph.D., Natural Resources and Sustainability (p. 351)

Ph.D., Natural Resources and Sustainability

Program Requirements
Minimum Requirements for Natural Resources and Sustainability Ph.D.
Degree: 26 credits (18 thesis credits)

<table>
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<tr>
<th>Code</th>
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<tr>
<td>NRM F647</td>
<td>Global to Local Sustainability</td>
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<tr>
<td>NRM F649</td>
<td>Integrated Assessment and Adaptive Management</td>
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Oceanography
M.S., Ph.D. Degrees

The M.S. and Ph.D. degrees are offered in several concentration areas of oceanography: physical, chemical, biological, geological and fisheries oceanography.

Oceanography is both interdisciplinary and multidisciplinary. The M.S. and Ph.D. degrees emphasize processes that influence the ocean as a system, including its circulation, composition, biological productivity and geology. Students considering graduate study in oceanography should have a strong background in physics, chemistry, biology, geology or mathematics and a working familiarity with the other subjects.

Opportunities for laboratory and field work are available through the Institute of Marine Science, the research unit of the College of Fisheries and Ocean Sciences. Research facilities are located in Fairbanks, the Seward Marine Center, the Kasitsna Bay Laboratory and Juneau. Facilities include the Ocean Acidification Research Center, the Alaska Stable Isotope Facility, seaside laboratories with running seawater systems, small boats, autonomous undersea vehicles and a variety of instrumentation for research in water circulation, marine particle dynamics, nutrient and trace metal chemistry, genomics, zooplankton ecology and other fields. The College operates the R/V Sikuliaq, a 261-foot ice capable oceanographic research ship owned by the National Science Foundation. Oceanography faculty and students are regular users of Sikuliaq and other ships for high-latitude research, not only in the Alaska region and the Arctic but also in the Antarctic/Southern Ocean, Greenland, the North Pacific and elsewhere.

Minimum Requirements for Oceanography Degrees: M.S.: 30 credits; Ph.D.: 18 thesis credits

College of Fisheries and Ocean Sciences
Oceanography Department (http://www.uaf.edu/cfos/academics/)
907-474-7289

Programs
Degrees
- M.S., Oceanography (p. 352)
- Ph.D., Oceanography (p. 352)
M.S., Oceanography

Admission Requirements

Complete the following admission requirement:

• Submit GRE scores.

Note: Students are admitted to the graduate program in marine sciences and limnology on the basis of their ability and the capability of the program to meet their particular interests and needs. Applications are considered throughout the year but students should apply by March 1 to have the best chance for admission and financial support for the subsequent fall semester. Assistantship stipends are awarded competitively and limited fellowship support is available. Most students are supported on research projects that relate directly to their degree research.

Program Requirements

Students must earn a B- grade or better in the core courses of the degree program before being eligible to take the comprehensive exam.

Minimum Requirements for Oceanography

M.S. Degree: 30 credits

CONCENTRATIONS: BIOLOGICAL (P. 352), CHEMICAL (P. 352), FISHERIES (P. 352), GEOLOGICAL (P. 352), PHYSICAL (P. 352)

<table>
<thead>
<tr>
<th>Code</th>
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<td></td>
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<tr>
<td></td>
<td>Biological, Chemical, Geological, Physical</td>
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<tr>
<td></td>
<td>Fisheries</td>
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</table>

Note: Oceanography majors must demonstrate field experience aboard an oceanographic vessel.

CONCENTRATIONS

BIOLOGICAL, CHEMICAL, GEOLOGICAL, PHYSICAL

<table>
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<td>MSL F630</td>
<td>Geological Oceanography</td>
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<td>MSL F643</td>
<td>Fisheries Oceanography</td>
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<td>MSL F650</td>
<td>Biological Oceanography</td>
<td>3</td>
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<tr>
<td>MSL F660</td>
<td>Chemical Oceanography</td>
<td>3</td>
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<tr>
<td>MSL F692</td>
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<td>MSL F699</td>
<td>Thesis ¹</td>
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<td>Electives</td>
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</tbody>
</table>

¹ Appropriate to area of concentration

Ph.D., Oceanography

Admission Requirements

Complete the following admission requirement:

• Submit GRE scores.

Note: Students are admitted to the graduate program in oceanography on the basis of their ability and the capability of the program to meet their particular interests and needs. Applications are considered throughout the year but students should apply by March 1 to have the best chance for admission and financial support for the subsequent fall semester. Assistantship stipends are awarded competitively and limited fellowship support is available. Most students are supported on research projects that relate directly to their degree research.

Program Requirements

Minimum Requirements for Oceanography

Ph.D. Degree: 18 credits

<table>
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<td></td>
<td>Complete the Ph.D. degree requirements. (p. 292)</td>
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</tr>
<tr>
<td></td>
<td>Complete course work equivalent to M.S. degree. ¹</td>
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</table>

¹ There are no fixed course requirements, nor is an M.S. degree required to earn the Ph.D. degree. However, a candidate for the Ph.D. degree in oceanography (biological, chemical, fisheries, geological and physical oceanography) will be expected to have completed course work at least equivalent to that required for the corresponding M.S. degree.

Note: Oceanography majors must demonstrate field experience aboard an oceanographic vessel.

One Health

O.H.M. Degree

One Health encompasses the relationship between human health, animal health and the health of the environment, holding that these entities are inextricably linked to the extent that none can be optimal unless they are all optimal. One Health is interdisciplinary and inclusive; it invites the full participation of community members working together with scientists, health practitioners, tribal leaders, and government agency personnel.
to identify problems and create realistic, sustainable solutions to those problems.

The One Health Master’s degree program educates students to use a constructionist approach to address issues in the circumpolar North that are at the intersection of human, animal and environmental health. By concentrating in either community advocacy or biomedical sciences, graduates of the program will be able to engage key stakeholders to develop and implement realistic management plans that can then be implemented in communities across the circumpolar North.

Minimum Requirements for One Health Master’s Degree: 30 credits

Learn more about the master’s degree in one health (https://uaf.edu/academics/programs/masters/one-health.php), including an overview of the program, career opportunities and more.

College of Natural Science and Mathematics
Department of Veterinary Medicine
Center for One Health Research (http://www.uaf.edu/onehealth/)
907-474-6610

Programs

Degrees

• O.H.M., One Health (p. 353)

O.H.M., One Health

Admission Requirements

One Health is an inherently interdisciplinary field, and there is no preferred background to succeed in the program. UAF welcomes applications from individuals who have backgrounds in natural or social science, health care, education, and a broad array of work and life experiences. Because the One Health Master’s focused on challenges in the circumpolar North, the degree will be of particular interest to individuals throughout that area; however, the concepts, tools and techniques that will be learned and practiced within the program can be applied to One Health challenges in any location.

Applications will close on June 1 each year and newly admitted students will enter the program in the fall semester. The OHM review committee will make final decisions on admissions. The OHM review committee will consist of representatives from both the social and natural sciences.

In addition to meeting the admission requirements for the master’s degree at UAF, students should also meet the following criteria when applying for admission to the One Health Master’s.

1. Applicants must have earned a baccalaureate degree from a regionally accredited University in the United States or a foreign equivalent.
2. Applicants must have a cumulative undergraduate GPA of 3.25 or higher (on a 4.0 scale).
3. Applicants must submit a letter of interest explaining their understanding of One Health and how they envision incorporating the One Health Master’s education in their future careers.
4. Applicants must submit names and contact information for three individuals who can address their preparedness for the One Health Master’s.
5. Applicants must submit a current resume or curriculum vitae.

6. Additional requirements for the community advocate concentration:
Undergraduate transcripts must include a minimum of 8 credits of natural science with labs, at least one of which must be general biology (BIOL F116X or equivalent), and one semester of basic statistics (STAT F200X or equivalent).

7. Additional requirements for the biomedical sciences concentration:
Undergraduate transcripts must include a minimum of 8 credits of biological sciences with labs (BIOL F115X and BIOL F116X or equivalent), 8 credits of general chemistry with labs (CHEM F105X and CHEM F106X or equivalent), and a semester-long course in basic statistics (STAT F200X or equivalent).

8. If you have any concerns about your preparedness or qualification for admission to this degree, please contact the degree program prior to application.

Program Requirements

Minimum Requirements for One Health Master’s Degree: 30 credits

CONCENTRATIONS: BIOMEDICAL (P. 353), COMMUNITY ADVOCATE (P. 354)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DVM F615</td>
<td>One Health Concepts</td>
<td>2</td>
</tr>
<tr>
<td>DVM F620</td>
<td>One Health Challenges in the Circumpolar North</td>
<td>3</td>
</tr>
<tr>
<td>DVM F621</td>
<td>One Health Colloquium</td>
<td>4</td>
</tr>
<tr>
<td>ACNS F600</td>
<td>Perspectives on the North</td>
<td>3</td>
</tr>
<tr>
<td>DVM F714</td>
<td>Preventative Veterinary Medicine</td>
<td>4</td>
</tr>
</tbody>
</table>

Complete one from the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COJO F441</td>
<td>Persuasion</td>
<td>3</td>
</tr>
<tr>
<td>COJO F451</td>
<td>Cross-cultural Conflict Analysis and Intervention</td>
<td></td>
</tr>
<tr>
<td>COJO F680</td>
<td>Communication and Diversity in the Professional World</td>
<td></td>
</tr>
</tbody>
</table>

Complete one of the following concentrations: 11-12

<table>
<thead>
<tr>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community Advocate Concentration</td>
</tr>
<tr>
<td>Biomedical Concentration</td>
</tr>
</tbody>
</table>

CONCENTRATIONS

Biomedical

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL F455</td>
<td>Environmental Toxicology</td>
<td>11-12</td>
</tr>
<tr>
<td>BIOL F617</td>
<td>Neurobiology</td>
<td></td>
</tr>
<tr>
<td>BIOL F635</td>
<td>Introduction to Biology of Cancer</td>
<td></td>
</tr>
<tr>
<td>DVM F606</td>
<td>Immunology</td>
<td></td>
</tr>
<tr>
<td>DVM F637/BIOL F632</td>
<td>Veterinary Bacteriology and Mycology</td>
<td></td>
</tr>
<tr>
<td>DVM/BIOL F640</td>
<td>Veterinary Pathology/Biology of Disease I</td>
<td></td>
</tr>
</tbody>
</table>
Petroleum Engineering

M.S. Degree

Petroleum engineering offers a unique look at the challenging problems confronting the petroleum industry. This program requires an understanding of many disciplines including mathematics, physics, chemistry, geology and engineering science. Courses in petroleum engineering deal with drilling, formation evaluation, production, reservoir engineering, computer simulation and enhanced oil recovery.

The curriculum prepares graduates to meet the demands of modern technology while emphasizing, whenever possible, the special problems encountered in Alaska. Located in one of the largest oil-producing states in the nation, the UAF petroleum engineering department offers modern and challenging degree programs.

The M.S. program is intended to provide students with an advanced treatment of petroleum engineering concepts. Students may choose either a thesis or non-thesis option. Research and teaching assistantships are available.

A doctoral degree program is offered with concentration in petroleum engineering for qualified students (see Engineering (p. 331)). Contact the graduate program coordinator or the petroleum engineering department for more information.

Minimum Requirements for Petroleum Engineering M.S. Degree: 30-36 credits

College of Engineering and Mines
Department of Petroleum Engineering (http://cem.uaf.edu/pete/)
907-474-7734

Options

THESIS OPTION

Minimum Requirements for Petroleum Engineering M.S. Degree Thesis Option: 30 credits

Complete the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PETE F699</td>
<td>Thesis</td>
<td>6</td>
</tr>
</tbody>
</table>

Elective courses

Electives are chosen with approval of graduate advisory committee.

Other courses may be substituted with approval of OHM Faculty.

Community Advocate

Complete 12 credits from the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACNS F610</td>
<td>Northern Indigenous Peoples and Contemporary Issues</td>
<td>12</td>
</tr>
<tr>
<td>ACNS F652</td>
<td>International Relations of the North</td>
<td></td>
</tr>
<tr>
<td>ACNS F655</td>
<td>Political Economy of the Global Environment</td>
<td></td>
</tr>
<tr>
<td>ACNS/HIST F683</td>
<td>20th-century Circumpolar History</td>
<td></td>
</tr>
<tr>
<td>ECON F434</td>
<td>Environmental Economics</td>
<td></td>
</tr>
<tr>
<td>RD F465</td>
<td>Community Healing and Wellness</td>
<td></td>
</tr>
<tr>
<td>RD F601</td>
<td>Political Economy of the Circumpolar North</td>
<td></td>
</tr>
</tbody>
</table>

Petroleum Engineering

M.S. Petroleum Engineering

Admission Requirements

Complete the following admission requirement:

• Complete a B.S. degree in engineering or the natural sciences.

Program Requirements

Minimum Requirements for Petroleum Engineering M.S. Degree: 30-36 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PETE F607</td>
<td>Advanced Production Engineering</td>
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<tr>
<td>PETE F608</td>
<td>Flow Assurance in the Petroleum Industry</td>
<td></td>
</tr>
<tr>
<td>PETE F610</td>
<td>Advanced Reservoir Engineering</td>
<td></td>
</tr>
<tr>
<td>PETE F621</td>
<td>Applied Reservoir Characterization</td>
<td></td>
</tr>
<tr>
<td>PETE F630</td>
<td>Waterflooding</td>
<td></td>
</tr>
<tr>
<td>PETE F645</td>
<td>Petroleum Geology</td>
<td></td>
</tr>
<tr>
<td>PETE F656</td>
<td>Advanced Petroleum Economic Analysis</td>
<td></td>
</tr>
<tr>
<td>PETE F661</td>
<td>Applied Well Testing</td>
<td></td>
</tr>
<tr>
<td>PETE F662</td>
<td>Enhanced Oil Recovery</td>
<td></td>
</tr>
<tr>
<td>PETE F663</td>
<td>Applied Reservoir Simulation</td>
<td></td>
</tr>
<tr>
<td>PETE F665</td>
<td>Advanced Phase Behavior</td>
<td></td>
</tr>
<tr>
<td>PETE F666</td>
<td>Drilling Optimization</td>
<td></td>
</tr>
<tr>
<td>PETE F670</td>
<td>Fluid Flow Through Porous Media</td>
<td></td>
</tr>
<tr>
<td>PETE F680</td>
<td>Horizontal Well Technology</td>
<td></td>
</tr>
<tr>
<td>PETE F683</td>
<td>Natural Gas Processing and Engineering</td>
<td></td>
</tr>
<tr>
<td>PETE F685</td>
<td>Non-Newtonian Fluid Mechanics</td>
<td></td>
</tr>
<tr>
<td>PETE F689</td>
<td>Multiphase Fluid Flow in Pipes</td>
<td></td>
</tr>
</tbody>
</table>

Options

Complete the requirements for one of the following options: 18-24 credits

Thesis Option

Non-thesis Option

Programs

Degree

• M.S., Petroleum Engineering (p. 354)
NON-THESIS OPTION
Minimum Requirements for Petroleum Engineering M.S. Degree
Non-thesis Option: 36 credits

Complete the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PETE F698</td>
<td>Non-thesis Research/Project</td>
<td>6</td>
</tr>
</tbody>
</table>

Electives $^2$ 18

$^2$ Electives are chosen with approval of graduate advisory committee.

M.S., Physics
Program Requirements
Minimum Requirements for Physics M.S. Degree: 30-33 credits

Complete four from the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS F611</td>
<td>Mathematical Physics I</td>
<td></td>
</tr>
<tr>
<td>PHYS F612</td>
<td>Mathematical Physics II</td>
<td></td>
</tr>
<tr>
<td>PHYS F621</td>
<td>Classical Mechanics</td>
<td></td>
</tr>
<tr>
<td>PHYS F622</td>
<td>Statistical Mechanics</td>
<td></td>
</tr>
<tr>
<td>PHYS F631</td>
<td>Electromagnetic Theory</td>
<td></td>
</tr>
<tr>
<td>PHYS F632</td>
<td>Electromagnetic Theory</td>
<td></td>
</tr>
<tr>
<td>PHYS F651</td>
<td>Quantum Mechanics</td>
<td></td>
</tr>
<tr>
<td>PHYS F652</td>
<td>Quantum Mechanics</td>
<td></td>
</tr>
</tbody>
</table>

Thesis or Non-thesis Requirements
Complete the thesis or non-thesis option 18-24

THESIS OPTION
Minimum Requirements for Physics M.S. Degree with Thesis Option: 30 credits

Complete the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS F699</td>
<td>Thesis</td>
<td>6-12</td>
</tr>
</tbody>
</table>

Complete 12 credits from the following:

Approved PHYS F600-level courses
Approved ATM F600-level courses

NON-THESIS OPTION
Minimum Requirements for Physics M.S. Degree with Non-thesis Option: 33 credits

Complete the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS F698</td>
<td>Non-thesis Research/Project</td>
<td>3-6</td>
</tr>
</tbody>
</table>

Complete 18 credits from approved courses 18

$^1$ At least 24 credits must be regular course work.

$^2$ At least 30 credits must be regular course work.

Physics
M.S., Ph.D. Degrees
Advanced study at the graduate level is offered in various areas of physics and applied physics, including many of the research specialties found at the UAF’s Geophysical Institute. Faculty and student research programs currently emphasize space physics, infrasonics, complex dynamics of nonlinear systems, ice physics and condensed matter physics.

The M.S. degree with computational physics concentration provides expertise in advanced computing environments, in the relevant mathematical foundations and in the specific physics discipline. It is directed toward students with undergraduate academic backgrounds in physics or other closely associated fields, such as engineering, that have the appropriate physics course work. This degree is relevant for students seeking careers in any areas that require expertise in computational modeling and simulation of physical systems.

The M.S. degree with space physics concentration focuses on the physics of upper atmospheres, ionospheres, magnetospheres and the interplanetary medium. It includes core physics courses and specialty courses in space physics, aeronomy, magnetospheric and auroral physics, and advanced plasma physics. The specialty courses support graduate research with faculty members at UAF’s Geophysical Institute, and include areas such as numerical simulations and time-series analysis. Additional courses such as radiative transfer and physics of fluids provide added breadth.

Minimum Requirements for Physics Degrees: M.S.: 30-33 credits; Ph.D.: 18 thesis credits

College of Natural Science and Mathematics
Department of Physics (http://www.uaf.edu/physics/)
907-474-7339

Programs
Master’s Degrees
- M.S., Physics (p. 355)
- M.S., Physics with Computational Physics Concentration (p. 356)
- M.S., Physics with Space Physics Concentration (p. 356)

Ph.D. Degree
- Ph.D., Physics (p. 357)
## M.S., Physics with Computational Physics Concentration

### Program Requirements

#### Minimum Requirements for Physics with Computational Concentration M.S. Degree: 30-33 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>General University Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general university requirements.</td>
<td>(p. 296)</td>
</tr>
<tr>
<td></td>
<td><strong>Master's Degree Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the master's degree requirements.</td>
<td>(p. 298)</td>
</tr>
<tr>
<td></td>
<td><strong>Physics with Computational Concentration Program Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the following:</td>
<td></td>
</tr>
<tr>
<td>PHYS F611</td>
<td>Mathematical Physics I</td>
<td>3</td>
</tr>
<tr>
<td>PHYS F612</td>
<td>Mathematical Physics II</td>
<td>3</td>
</tr>
<tr>
<td>PHYS F629</td>
<td>Methods of Numerical Simulation in Fluids and Plasma</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Complete at least 3 credits from the following:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Approved MATH F600-level courses (excluding MATH F611/PHYS F611 and PHYS F612)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Approved CS F600-level courses</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete 6 credits of approved PHYS F600-level courses</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td><strong>Thesis or Non-thesis Option</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the thesis or non-thesis option</td>
<td>12-18</td>
</tr>
</tbody>
</table>

### THESIS OPTION

Minimum Requirements for Physics with Computational Concentration M.S. Degree with Thesis Option: 30 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Thesis Requirements</strong></td>
<td></td>
</tr>
<tr>
<td>PHYS F699</td>
<td>Thesis</td>
<td>6-12</td>
</tr>
<tr>
<td></td>
<td>Complete 6 credits from approved PHYS F600-level courses</td>
<td>6</td>
</tr>
</tbody>
</table>

### NON-THESIS OPTION

Minimum Requirements for Physics with Computational Concentration M.S. Degree with Non-thesis Option: 33 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Non-thesis Requirements</strong></td>
<td></td>
</tr>
<tr>
<td>PHYS F698</td>
<td>Non-thesis Research/Project</td>
<td>3-6</td>
</tr>
<tr>
<td></td>
<td>Complete 9 credits from approved PHYS F600-level courses</td>
<td>9</td>
</tr>
</tbody>
</table>

1 At least 30 credits must be regular course work.

## M.S., Physics with Space Physics Concentration

### Program Requirements

#### Minimum Requirements for Physics with Space Physics Concentration M.S. Degree: 30-33 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>General University Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general university requirements.</td>
<td>(p. 296)</td>
</tr>
<tr>
<td></td>
<td><strong>Master's Degree Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the master's degree requirements.</td>
<td>(p. 298)</td>
</tr>
<tr>
<td></td>
<td><strong>Physics with Space Physics Concentration Program Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete four from the following:</td>
<td></td>
</tr>
<tr>
<td>PHYS F626</td>
<td>Fundamentals of Plasma Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS F627</td>
<td>Advanced Plasma Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS F629</td>
<td>Methods of Numerical Simulation in Fluids and Plasma</td>
<td>3</td>
</tr>
<tr>
<td>PHYS F672</td>
<td>Magnetospheric Physics</td>
<td></td>
</tr>
<tr>
<td>PHYS F673</td>
<td>Space Physics</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Thesis or Non-Thesis Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the thesis or non-thesis option</td>
<td>18-24</td>
</tr>
</tbody>
</table>

### THESIS OPTION

Minimum Requirements for Physics with Space Physics Concentration Degree Thesis option: 30 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Thesis Requirements</strong></td>
<td></td>
</tr>
<tr>
<td>PHYS F699</td>
<td>Thesis</td>
<td>6-12</td>
</tr>
<tr>
<td></td>
<td>Complete 12 credits from the approved PHYS F600-level courses</td>
<td>12</td>
</tr>
</tbody>
</table>

### NON-THESIS OPTION

Minimum Requirements for Physics with Space Physics Concentration Degree with Non-thesis option: 33 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Non-thesis Requirements</strong></td>
<td></td>
</tr>
<tr>
<td>PHYS F698</td>
<td>Non-thesis Research/Project</td>
<td>3-6</td>
</tr>
<tr>
<td></td>
<td>Complete 18 hours from approved PHYS F600-level courses</td>
<td>18</td>
</tr>
</tbody>
</table>

1 At least 30 credits must be regular course work.
Ph.D., Physics

Program Requirements

Minimum Requirements for Physics Ph.D. Degree: 18 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>General University Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (p. 295)</td>
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</tr>
<tr>
<td></td>
<td>Ph.D. Degree Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the Ph.D. degree requirements. (p. 292)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Examinations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete and pass a written and oral comprehensive examination.</td>
<td></td>
</tr>
</tbody>
</table>

1 Complete in accordance with the Physics Department’s policies and procedures manual for graduate students.

Resilience and Adaptation

Graduate Certificate

The graduate certificate in resilience and adaptation studies is ideal for current graduate students in many disciplines. The graduate certificate encourages a more in-depth study of resilience, adaptation and sustainability, and provides students a credential that recognizes their knowledge of resilience theory and its application to sustainable systems. The certificate prepares students for a career in academia, industry, government and nongovernmental organizations by exposing them to the interdisciplinarity of complex systems. It is a defined series of courses that expose the students to the concepts of resilience and adaptation. Courses will advance knowledge and promote social-ecological research in sustainability and resilience. Students working on degrees in the STEM sciences and social sciences will broaden their disciplinary perspective through exposure to economics, ecology, sociology and anthropology to gain practical knowledge, training and integrative skills development. This certificate embodies a holistic perspective that recognizes the importance of both the social and biological dimensions of environmental sustainability and resilience. This certificate is offered by the Graduate School and will meet the needs of students and professionals.

Minimum Requirements for Resilience and Adaptation Graduate Certificate: 12 credits

Resilience and Adaptation Studies
Graduate School (https://www.uaf.edu/gradschool/)
907-474-7464

Programs

Degree

- Graduate Certificate, Resilience and Adaptation (p. 357)

Ph.D., Physics, Space

Program Requirements

Minimum Requirements for Space Physics Ph.D. Degree: 18 thesis credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General University Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (p. 295)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ph.D. Degree Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the Ph.D. degree requirements. (p. 292)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Examinations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete and pass a written and oral comprehensive examination.</td>
<td></td>
</tr>
</tbody>
</table>

Physics, Space

Ph.D. Degree

Space physics focuses on the physics of upper atmospheres, ionospheres, magnetospheres and the interplanetary medium. It includes core physics courses and specialty courses in space physics, aeronomy, magnetospheric and auroral physics, and advanced plasma physics. The specialty courses support graduate research with faculty members at UAF’s Geophysical Institute, and include areas such as numerical simulations and time-series analysis. Additional courses such as radiative transfer and physics of fluids provide added breadth.

See Physics. (p. 355)

Minimum Requirements for Space Physics Doctorate Degree: 18 thesis credits

College of Natural Science and Mathematics
Department of Physics (http://www.uaf.edu/physics/)
907-474-7339

Programs

Degree

- Ph.D., Physics, Space (p. 357)

Resilience and Adaptation Studies Graduate Certificate: 12 credits

Graduate Certificate, Resilience and Adaptation

Admission Requirements

- Hold a baccalaureate degree with a minimum 3.0 GPA from an accredited institution.

Program Requirements

Minimum Requirements for Resilience and Adaptation Studies Graduate Certificate: 12 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>General University Requirements</td>
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<tr>
<td></td>
<td>Complete the general university requirements. (p. 296)</td>
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</tr>
<tr>
<td></td>
<td>Graduate Certificate Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the graduate certificate requirements. (p. 294)</td>
<td></td>
</tr>
</tbody>
</table>
Resilience and Adaptation Program Requirements
Students must earn a B or Pass grade (or better) in each course.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ANTH F616</td>
<td>Anthropologic Background for Resilience and Adaptation</td>
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</tr>
<tr>
<td>BIOL F616</td>
<td>Ecological Background for Resilience and Adaptation</td>
<td>1</td>
</tr>
<tr>
<td>ECON F616</td>
<td>Economics Background for Resilience and Adaptation</td>
<td>1</td>
</tr>
<tr>
<td>NRM F667</td>
<td>Resilience Seminar I</td>
<td>1</td>
</tr>
<tr>
<td>NRM F668</td>
<td>Resilience Seminar II</td>
<td>1</td>
</tr>
<tr>
<td>Electives</td>
<td></td>
<td>7</td>
</tr>
</tbody>
</table>

Rural Development

M.A. Degree
The Department of Alaska Native Studies and Rural Development M.A. program is designed to educate leaders who understand the dynamic relationship of rural Alaska with the global economy and who have professional skills in areas of leadership, business development, administration and conflict management. Graduates typically take positions with tribal and municipal governments, fisheries, tourism, Native corporations, regional health corporations or non-profits, state/federal agencies, or other private businesses.

Graduate degree students gain a broader theoretical understanding of development processes in Alaska and the circumpolar North. Graduate students complete a thesis or applied community development project, and have opportunities for international study and research.

Students can earn the M.A. degree either on the Fairbanks campus or through distance delivery. Special application requirements and deadlines apply for distance M.A. degree programs. For more information contact the Department of Alaska Native Studies and Rural Development (https://www.uaf.edu/dansrd/) toll free 1-866-478-2721.

Minimum Requirements for Rural Development M.A. Degree: 30 credits
College of Rural and Community Development
Department of Alaska Native Studies and Rural Development (https://www.uaf.edu/dansrd/) 907-474-6528
Toll free 1-866-478-2721

Programs
Degree
• M.A., Rural Development (p. 358)

M.A., Rural Development

Program Requirements

Minimum Requirements for Rural Development M.A. Degree: 30 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General University Requirements</td>
<td>Complete the general university requirements. (p. 296)</td>
<td></td>
</tr>
<tr>
<td>Master’s Degree Requirements</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Complete the master’s degree requirements. (p. 296)

Rural Development Program Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>RD F600</td>
<td>Circumpolar Indigenous Leadership Symposium</td>
<td>3</td>
</tr>
<tr>
<td>RD F601</td>
<td>Political Economy of the Circumpolar North</td>
<td>3</td>
</tr>
<tr>
<td>RD F625</td>
<td>Community Development Strategies: Principles and Practices</td>
<td>3</td>
</tr>
<tr>
<td>RD F650</td>
<td>Community-based Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>RD F651</td>
<td>Management Strategies for Rural Development</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete 9-12 elective credits at the F600 level of the following: 1

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH F610</td>
<td>Northern Indigenous Peoples and Contemporary Issues</td>
<td></td>
</tr>
<tr>
<td>CCS F608</td>
<td>Indigenous Knowledge Systems</td>
<td></td>
</tr>
<tr>
<td>RD F425</td>
<td>Cultural Resource Issues</td>
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<tr>
<td>RD F652</td>
<td>Indigenous Organization Management</td>
<td></td>
</tr>
<tr>
<td>RD F655</td>
<td>Circumpolar Health Issues</td>
<td></td>
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</tbody>
</table>

Complete one of the following: 6-9

Research Project
Thesis

1 Up to 6 credits may be at the F400 level with approval from the graduate committee

Science Teaching and Outreach
Graduate Certificate

The certificate in science teaching and outreach is a voluntary program that prepares science graduate students for science careers that include teaching and/or communicating science to the public. It does NOT meet the requirements for earning a state teaching certificate and will not allow graduates to apply for certified positions in the K-12 school system. The science teaching and outreach certificate will enhance readiness for college-level teaching by providing hands-on training and familiarity with pedagogical theory. The certificate is expected to increase competitive ability in the higher-education job market.

Minimum Requirements for Science Teaching and Outreach Graduate Certificate: 12 credits
College of Natural Science and Mathematics
Department of Biology and Wildlife (http://www.bw.uaf.edu) 907-474-7671

Programs
Graduate Certificate
• Graduate Certificate, Science Teaching and Outreach (p. 359)
Graduate Certificate, Science Teaching and Outreach

Program Requirements

Minimum Requirements for Science and Teaching Outreach Graduate Certificate: 12 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General University Requirements</td>
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<tr>
<td></td>
<td>Complete the general university requirements. (p. 294)</td>
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</tr>
<tr>
<td></td>
<td>Graduate Certificate Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the graduate certificate requirements. (p. 294)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Science and Teaching Outreach Program Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Have a bachelor's degree from an accredited institution.</td>
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<tr>
<td>STO F601</td>
<td>Communicating Science</td>
<td>2</td>
</tr>
<tr>
<td>STO F602</td>
<td>Mentoring in the Sciences</td>
<td>2</td>
</tr>
<tr>
<td>STO F603</td>
<td>Instructional Design</td>
<td>1</td>
</tr>
<tr>
<td>STO F604</td>
<td>Science Teaching and Outreach Internship</td>
<td>4</td>
</tr>
<tr>
<td>STO F606</td>
<td>Scientific Teaching</td>
<td>2</td>
</tr>
<tr>
<td>MATH F600</td>
<td>Teaching Seminar</td>
<td>1</td>
</tr>
<tr>
<td>PHYS F605</td>
<td>Physics Teaching Seminar/Practicum</td>
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</tr>
<tr>
<td>STO F692</td>
<td>Current Topics in Scientific Teaching</td>
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</tbody>
</table>

Security and Disaster Management

Overview

M.S.D.M. Degree

The online master of security and disaster management program serves both aspiring and existing homeland defense/security and emergency management practitioners. The program builds upon the experience and education of those within this highly interdisciplinary enterprise, providing graduate-level education that focuses on supporting the operational and strategic needs of those leading and managing in today’s highly complex world. Leveraging the education provided in the bachelor of security and emergency management degree, the master’s degree requires a greater synthesis and integration of the critical thinking and analysis skills required for managers and leaders in homeland defense/security and emergency management and associated fields.

The primary objectives of the program are to: prepare students for leadership and management roles in homeland security and emergency management; identify best practices for integrating community planning, security and aspects of prevention and mitigation when preparing communities and regions for a disaster; underscore the need to adopt and manage an “all hazards” approach to preparing for and managing disasters at the tactical, operational and strategic levels of the HSEM enterprise; and develop critical thinking skills, analytical abilities and leadership/management capacity to serve at the executive level in public and private sector organizations.

Applications are reviewed on a continual basis.

Minimum Requirements for Security and Disaster Management Master’s Degree: 30 credits

Learn more about the online master’s degree in disaster management (https://uaf.edu/academics/programs/masters/security-disaster-management.php), including an overview of the program, career opportunities and more.

School of Management

Department of Homeland Security and Emergency Management

907-474-7461

Master of Security and Disaster Management (http://www.uaf.edu/som/degrees/graduate/msdm/)

Programs

Degree

• M.S.D.M., Security and Disaster Management (p. 359)

M.S.D.M., Security and Disaster Management

Admission Requirements

Complete the following admission requirements:

• Students with a GPA above 2.75 will be required to submit a score from the Watson-Glaser Critical Thinking Exam.
• Any students with a GPA lower then 2.75 will be required to submit scores from either the GRE or the GMAT.
• Students without a background in Homeland Security and Emergency Management will be required to take HSEM F301: Principles of Emergency Management and Homeland Security. This course will not count toward the M.S.D.M. program requirements.

Program Requirements

Minimum Requirements for Security and Disaster Management M.S.D.M.: 30 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td></td>
<td>General University Requirements</td>
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</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (p. 296)</td>
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<tr>
<td></td>
<td>Master's Degree Requirements</td>
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</tr>
<tr>
<td></td>
<td>Complete the master’s degree requirements. (p. 298)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Security and Disaster Management Program Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete one of the following concentrations:</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>• Arctic Security</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Business Continuity</td>
<td></td>
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</table>

• HSEM F601 | Legal Aspects of Homeland Security and Emergency Management | 3 |
• HSEM F603 | Disaster Management Policy           | 3 |
• HSEM F607 | Vulnerability and Protection         | 3 |
• HSEM F609 | Human Security                       | 3 |
• HSEM F690 | Security and Disaster Management     | 3 |
Students with two C’s, one D or one F in courses that are part of the HSEM program will not be in good standing even if their cumulative GPA is at or above 3.0. HSEM students who are not in good standing will be subject to review and may be dismissed by the HSEM committee. Students may not use more than two F600-level courses with C grades on the advancement-to-candidacy application.

Note: Up to six 400- or graduate-level credits may be transferred from the National Fire Academy, FBI National Academy, Command and General Staff College, or similar programs approved by the American Council on Education, as substitutes.

Note: An A or B grade must be earned in F400-level courses.

### Concentrations

#### ARCTIC SECURITY

<table>
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<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HSEM F621</td>
<td>Circumpolar Competition-Arctic Diplomacy and Defense</td>
<td>9</td>
</tr>
<tr>
<td>HSEM F622</td>
<td>Arctic Strategies and Operations</td>
<td></td>
</tr>
<tr>
<td>HSEM F692</td>
<td>Security and Disaster Management Seminar</td>
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</tr>
<tr>
<td>or ACNS F652</td>
<td>International Relations of the North</td>
<td></td>
</tr>
</tbody>
</table>

Complete two approved electives at the F400 or F600 level 6

### BUSINESS CONTINUITY

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>HSEM F632</td>
<td>Project Management</td>
<td>9</td>
</tr>
<tr>
<td>HSEM F645</td>
<td>Crisis Management</td>
<td></td>
</tr>
<tr>
<td>HSEM F646</td>
<td>Business Continuity and Risk Assessment</td>
<td></td>
</tr>
<tr>
<td>HSEM F647</td>
<td>Business Continuity Audit</td>
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</table>

Complete two approved electives at the F400 or F600 level 6

### CYBERSECURITY

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HSEM F641</td>
<td>Information Assurance and Risk Assessment</td>
<td>9</td>
</tr>
<tr>
<td>HSEM F642</td>
<td>Cyber Threats and Vulnerabilities</td>
<td></td>
</tr>
<tr>
<td>HSEM F643</td>
<td>Perspectives in Addressing Cybersecurity &amp; Critical Infrastructure</td>
<td></td>
</tr>
</tbody>
</table>

Complete two approved electives at the F400 or F600 level 6

### DISASTER MANAGEMENT

Choose three of the following: 9

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>HSEM F605</td>
<td>Community Planning in Emergency Management</td>
<td></td>
</tr>
<tr>
<td>HSEM F613</td>
<td>International Disaster Management</td>
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</table>

Complete two approved electives at the F400 or F600 level 6

### STRATEGIC LEADERSHIP

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>HSEM F632</td>
<td>Project Management</td>
<td>9</td>
</tr>
<tr>
<td>HSEM F665</td>
<td>Strategic Collaboration</td>
<td></td>
</tr>
</tbody>
</table>

Complete two approved electives at the F400 or F600 level 6

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Statistics

Graduate Certificate, M.S. Degree

Statistics is a collection of methods and theories used to make decisions or estimate unknown quantities from incomplete information. Statistical techniques are useful, for example, in estimating plant, animal and mineral abundances; forecasting social, political and economic trends; planning field plot experiments in agriculture; performing clinical trials in medical research; and maintaining quality control in industry. Employment opportunities are excellent for statisticians in many of these areas.

As a postbaccalaureate program, the certificate in statistics is equivalent to a full year of graduate statistics courses and is ideal for current graduate students in disciplines other than statistics (especially the sciences). The graduate certificate in statistics encourages a more in-depth study of statistics and provides students a credential recognizing their quantitative expertise.

The M.S. degree program in statistics builds upon UAF’s strength in the sciences and our setting in Alaska by introducing a strong quantitative alternative or supplement to existing programs. The curriculum is built around four statistics core courses and flexibility in selection of elective courses. The core courses are designed to blend mathematical statistics course work typical of most M.S. programs in statistics with real applications. We believe this blending provides a substantial improvement in the graduate’s skills.

Graduates of this program could be labeled quantitative biologists, biometricians, quantitative geologists, geostatisticians, or mathematical statisticians depending upon their specific course work. In addition, this program prepares individuals for Ph.D.-level work in statistics or their area of application.

The statistics program is administered by the Department of Mathematics and Statistics.

Minimum Requirements for Statistics Certificate: 12 credits; M.S.: 30 credits
College of Natural Science and Mathematics
Department of Mathematics and Statistics (http://www.uaf.edu/dms/)
907-474-7332

Programs
Degree
• M.S., Statistics (p. 361)

Graduate Certificate
• Graduate Certificate, Statistics (p. 361)

Graduate Certificate, Statistics
Admission Requirements
Complete the following admission requirements:
• Hold a baccalaureate degree from an accredited institution
• Complete Calculus I (MATH F251X), Calculus II (MATH F252X) and Calculus III (MATH F253X)¹
• Complete Regression and Analysis of Variance (STAT F401) or equivalent¹. Students without this requirement may be admitted into the program with a deficiency but will be required to complete STAT F401 as part of the requirements of the certificate.

¹ Students must earn a C or better in each course.

Program Requirements
Minimum Requirements for Statistics
Graduate Certificate Degree: 12 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td></td>
<td>General University Requirements</td>
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<tr>
<td></td>
<td>Complete the general university requirements. (p. 296)</td>
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<td></td>
<td>Graduate Certificate Requirements</td>
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<td></td>
<td>Complete the graduate certificate requirements. (p. 294)</td>
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<tr>
<td></td>
<td>Statistics Program Requirements</td>
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</tr>
<tr>
<td>STAT F651</td>
<td>Statistical Theory I ²</td>
<td>3</td>
</tr>
<tr>
<td>or MATH F408</td>
<td>Mathematical Statistics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete two from the following: ¹</td>
<td>6-8</td>
</tr>
<tr>
<td>STAT F461</td>
<td>Applied Multivariate Statistics</td>
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</tr>
<tr>
<td>STAT F602</td>
<td>Experimental Design</td>
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</tr>
<tr>
<td>STAT F605</td>
<td>Spatial Statistics</td>
<td></td>
</tr>
<tr>
<td>STAT F611</td>
<td>Time Series</td>
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<tr>
<td>STAT F621</td>
<td>Nonparametric Statistics</td>
<td></td>
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<tr>
<td>STAT F631</td>
<td>Categorical Data Analysis</td>
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<tr>
<td>STAT F641</td>
<td>Bayesian Statistics</td>
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<tr>
<td>STAT F642</td>
<td>Bayesian Decision Theory for Resource Management</td>
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<tr>
<td>STAT F651</td>
<td>Statistical Theory I ²</td>
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<tr>
<td>STAT F652</td>
<td>Statistical Theory II ²</td>
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</tr>
<tr>
<td>STAT F653</td>
<td>Statistical Theory III: Linear Models</td>
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</tr>
<tr>
<td>STAT F661</td>
<td>Sampling Theory</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete one or more from the following electives to total 12 credits for the certificate: ³</td>
<td>3-6</td>
</tr>
<tr>
<td>ECON F626</td>
<td>Econometrics</td>
<td></td>
</tr>
</tbody>
</table>

Notes:
¹ Excluding STAT F654, STAT F692, STAT F692A, STAT F692P and STAT F698.
² No more than two of the following courses can be used towards the certificate: MATH F408, STAT F651 or STAT F652.

M.S., Statistics
Admission Requirements
Complete the following admission requirements:
• Submit three letters of recommendation concerning the applicant’s educational background and quantitative training.
• Submit complete transcripts for all college-level work.
• Submit a resume.
• Submit a written statement of goals.
• The applicant must have completed a bachelor’s degree from an accredited institution with a GPA of at least 3.0.
• Must have completed the following courses or their equivalent with a B grade or better: full calculus sequence (Calculus I (MATH F251X), Calculus II (MATH F252X), Calculus III (MATH F253X)); note that students substituting Essential Calculus with Applications (MATH F230X) for Calculus I must take MATH F252X and MATH F253X before acceptance; a course in linear algebra (MATH F314); at least one introductory statistics or probability course (STAT F200X, STAT F300 or MATH F371, MATH F408); and Regression and Analysis of Variance (STAT F401). Students lacking MATH F314 or STAT F401 may be accepted on probation.

Program Requirements
Minimum Requirements for Statistics
M.S. Degree: 30 credits

<table>
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<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tr>
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<tr>
<td></td>
<td>Master’s Degree Requirements</td>
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<td></td>
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</tr>
<tr>
<td></td>
<td>Statistics Program Requirements</td>
<td></td>
</tr>
<tr>
<td>STAT F651</td>
<td>Statistical Theory I</td>
<td>3</td>
</tr>
<tr>
<td>STAT F652</td>
<td>Statistical Theory II</td>
<td>4</td>
</tr>
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</table>
Graduate Certificate, Strategic Leadership

Admission Requirements

- Student must have a completed baccalaureate degree.
- Students that have already obtained a graduate degree will not be required to complete an entrance exam.
- Students with a baccalaureate degree with a cumulative GPA of 3.0 or higher will not have any additional testing or entry course requirements.
- If the student has a cumulative GPA between 3.0 and 2.75, regardless of the field of study, they will be required to complete the Watson Glaser Critical Thinking Exam.
- If a student has a cumulative GPA below 2.75, they will be required to submit results from either the GRE or GMAT.

Program Requirements

Minimum Requirements for Strategic Leadership Graduate Certificate: 12 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT F653</td>
<td>Statistical Theory III: Linear Models</td>
<td>3</td>
</tr>
<tr>
<td>STAT F654</td>
<td>Statistical Consulting Seminar</td>
<td>1</td>
</tr>
<tr>
<td>STAT F698</td>
<td>Non-thesis Research/Project</td>
<td>3</td>
</tr>
<tr>
<td>Complete two of the following:</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>STAT F461</td>
<td>Applied Multivariate Statistics</td>
<td></td>
</tr>
<tr>
<td>STAT F602</td>
<td>Experimental Design</td>
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<tr>
<td>STAT F605</td>
<td>Spatial Statistics</td>
<td></td>
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<tr>
<td>STAT F621</td>
<td>Nonparametric Statistics</td>
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<tr>
<td>STAT F631</td>
<td>Categorical Data Analysis</td>
<td></td>
</tr>
<tr>
<td>STAT F641</td>
<td>Bayesian Statistics</td>
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</tr>
<tr>
<td>STAT F661</td>
<td>Sampling Theory</td>
<td></td>
</tr>
<tr>
<td>STAT F611</td>
<td>Time Series</td>
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</tbody>
</table>

Complete at least 6 credits of approved courses from an application area or courses with substantial statistical and/or mathematical content.  

Water and Environmental Science

Overview

M.S. Degree

ADMISSION TO THIS PROGRAM IS CURRENTLY SUSPENDED.

The water and environmental science program offers an M.S. degree for students with a background in science or engineering. The committee chair has to be a civil and environmental engineering faculty member or an Institute of Northern Engineering research faculty. At least one committee member must be a civil and environmental engineering faculty to oversee the student’s academic program.

Career opportunities for graduates include hydrology, water supply, treatment and distribution, waste treatment, water and air pollution, solid waste disposal, hazardous and toxic waste management, pollution prevention, environmental impact evaluation, administration of environmental programs and regulatory compliance. Graduates are prepared to hold positions in government, industry, consulting or academia.
Minimum Requirements for Water and Environmental Science Degree: 30 credits

College of Engineering and Mines
Department of Civil and Environmental Engineering (http://cem.uaf.edu/cee/)
907-474-7241

Programs
Degree
• M.S., Water and Environmental Science (p. 363) — Admission to this program is currently suspended.

M.S., Water and Environmental Science

Admission Requirements
Admission to this program is currently suspended.

Complete the following admission requirements:

• Complete a B.S. in natural science with a GPA of 3.0 or higher, or a B.S. in engineering from an ABET-accredited institution with a GPA of 3.0 or higher.
• Complete the TOEFL exam (only required of non-native English speakers. The minimum score required is 79 for the internet, or 213 for the computerized test).
• Submit GRE scores.

Program Requirements
Admission to this program is currently suspended.

Minimum Requirements for Water and Environmental M.S.: 30 credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
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<tr>
<td>General University Requirements</td>
<td>Complete the general university requirements. (p. 296)</td>
<td></td>
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<tr>
<td>Master's Degree Requirements</td>
<td>Complete the master's degree requirements. (p. 298)</td>
<td></td>
</tr>
<tr>
<td>Water and Environmental Program Requirements</td>
<td>Complete one of the following concentrations: Environmental Contaminants, Environmental Science and Management, Hydrology, Water Supply and Waste Treatment</td>
<td>21-27</td>
</tr>
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Concentrations

Environmental Contaminants

Complete the following:

<table>
<thead>
<tr>
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<tr>
<td>CE F601</td>
<td>Engineering Research Communication</td>
<td>3</td>
</tr>
<tr>
<td>CE F663</td>
<td>Groundwater Dynamics</td>
<td>3</td>
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Environmental Science and Management

Complete the following:

<table>
<thead>
<tr>
<th>Code</th>
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<tr>
<td>ENVE F641</td>
<td>Aquatic Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>ENVE F642</td>
<td>Contaminant Hydrology</td>
<td>3</td>
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<tr>
<td>ENVE F647</td>
<td>Biotechnology</td>
<td>3</td>
</tr>
<tr>
<td>ENVE F649</td>
<td>Hazardous and Toxic Waste Management</td>
<td>3</td>
</tr>
</tbody>
</table>

Approved electives (3 credits for thesis; 9 credits for project)

1 In addition to ENVE courses, recommended courses include: BIOL F657, BIOL F680, CE F603, CE F661, CE F683, CE F684, CHEM F609, CHEM F631, CHEM F655, GE F620 and MATH F615.

Environmental Science and Management

Complete the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CE F601</td>
<td>Engineering Research Communication</td>
<td>3</td>
</tr>
<tr>
<td>ENVE F641</td>
<td>Aquatic Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>ENVE F644</td>
<td>Environmental Management and Permitting</td>
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<tr>
<td>ENVE F647</td>
<td>Biotechnology</td>
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</tr>
<tr>
<td>ENVE F649</td>
<td>Hazardous and Toxic Waste Management</td>
<td></td>
</tr>
<tr>
<td>ENVE F651</td>
<td>Environmental Risk Assessment</td>
<td></td>
</tr>
<tr>
<td>ENVE F652</td>
<td>Introduction to Toxicology for Engineers and Scientists</td>
<td></td>
</tr>
</tbody>
</table>

Approved electives (3 credits for thesis; 9 credits for project)

1 In addition to ENVE courses, recommended courses include: BIOL F657, BIOL F680, CE F603, CE F661, CE F683, CE F684, CHEM F609, CHEM F631, CHEM F655, GE F620 and MATH F615.

Hydrology

Complete the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CE F601</td>
<td>Engineering Research Communication</td>
<td>3</td>
</tr>
<tr>
<td>CE F662</td>
<td>Open Channel and River Engineering</td>
<td>3</td>
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<tr>
<td>CE F663</td>
<td>Groundwater Dynamics</td>
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<tr>
<td>CE F665</td>
<td>Introduction to Watershed Hydrology</td>
<td>3</td>
</tr>
<tr>
<td>CE F683</td>
<td>Arctic Hydrology and Hydraulic Engineering</td>
<td>3</td>
</tr>
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</table>

Approved electives (6 credits for thesis; 12 credits for project)

1 Recommended electives include: CE F445, CE F603, CE F661, CE F664, ENVE F641, ENVE F642, ENVE F644, BIOL F473, BIOL F483, NRM F435, NRM F670, GEOS F616, GEOS F617, GEOS F631 and GEOS F694.

Water supply and waste treatment

Complete the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE F601</td>
<td>Engineering Research Communication</td>
<td>3</td>
</tr>
<tr>
<td>ENVE F641</td>
<td>Aquatic Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>ENVE F643</td>
<td>Air Pollution Management</td>
<td>3</td>
</tr>
<tr>
<td>or ENVE F649</td>
<td>Hazardous and Toxic Waste Management</td>
<td>3</td>
</tr>
</tbody>
</table>
Wildlife Biology and Conservation

M.S. Degree

The geographic location of the university is particularly advantageous for the study of wildlife biology. Spruce forest, aspen-birch forest, alpine tundra, bogs and several types of aquatic habitats are within easy reach. Studies can be made in many other habitats ranging from the dense forests of southeastern Alaska to Arctic tundra.

Adequate study collections of plants and animals are available, and a 2,000-acre study area is near the campus. Wildlife biology students have ample opportunity for close association with the personnel of the Alaska Cooperative Fish and Wildlife Research Unit, Institute of Arctic Biology and several local offices of federal and state conservation agencies. These agencies often provide support for graduate student projects, and program faculty usually hire a number of students for summer field work. Exceptional opportunities are available for students to gain experience and make job connections.

The Department of Biology and Wildlife, the Institute of Arctic Biology and the Alaska Cooperative Fish and Wildlife Research Unit cooperate in offering graduate work leading to the M.S. degree. Detailed information on the graduate program in wildlife biology and management is available from the chair of the wildlife program.

The Alaska Cooperative Fish and Wildlife Research Unit and Institute of Arctic Biology offer a limited number of research assistantships. Teaching assistantships are available in the Department of Biology and Wildlife.

Minimum Requirements for Wildlife Biology and Conservation Master's Degree: 30 credits

College of Natural Science and Mathematics
Department of Biology and Wildlife (http://www.bw.uaf.edu)
907-474-7671

Programs

Degree

• M.S., Wildlife Biology and Conservation (p. 364)

M.S., Wildlife Biology and Conservation

Admission Requirements

Complete the following admission requirements:

• Submit scores from both the GRE general test (required) and the GRE subject test in biology (highly recommended).
• If English is not your native language, submit scores from both the Test of Spoken English and the Test of Written English,
## UAF ADMINISTRATION, FACULTY AND EMERITI

### Board of Regents

#### UA Board of Regents

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John Bania 2019-2027  
Sheri Buretta, Chair, 2015-2023  
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Karen Perdue, Vice Chair, 2017-2025  
Andy Teuber 2015-2023

UA BOR on the web (http://www.alaska.edu/bor/)

### Administration

#### UAF Administration

<table>
<thead>
<tr>
<th>Office</th>
<th>UAF Administration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chancellor</td>
<td>Daniel M. White</td>
</tr>
<tr>
<td>Provost</td>
<td>Anupma Prakash, Executive Vice Chancellor</td>
</tr>
<tr>
<td>Administrative Services</td>
<td>Julie Queen, Vice Chancellor</td>
</tr>
<tr>
<td>Agricultural and Forestry Experiment Station</td>
<td>Milan Shipka, Director</td>
</tr>
<tr>
<td>Alaska Center for Energy and Power</td>
<td>Gwen Holdmann, Director</td>
</tr>
<tr>
<td>Arctic Biology, Institute of</td>
<td>Brian Barnes, Director</td>
</tr>
<tr>
<td>Community and Technical College</td>
<td>Michele Stalder, Dean</td>
</tr>
<tr>
<td>Cooperative Extension Service</td>
<td>Milan Shipka, Acting Director</td>
</tr>
<tr>
<td>Education, School of</td>
<td>Amy Vinlove, Director</td>
</tr>
<tr>
<td>eCampus</td>
<td>Owen Guthrie, Director</td>
</tr>
<tr>
<td>Engineering and Mines, College of</td>
<td>William Schnabel, Dean</td>
</tr>
<tr>
<td>Equity and Compliance</td>
<td>Margo Griffith, Director</td>
</tr>
<tr>
<td>Executive Officer</td>
<td>Nickole Conley</td>
</tr>
<tr>
<td>Facilities Services</td>
<td>Jenny Campbell, Interim Associate Vice Chancellor</td>
</tr>
<tr>
<td>Fisheries and Ocean Sciences, College of</td>
<td>S. Bradley Moran, Dean</td>
</tr>
<tr>
<td>General Studies</td>
<td>Alex Fitts, Dean, Vice Provost and Accreditation Liaison Officer</td>
</tr>
<tr>
<td>Geophysical Institute</td>
<td>Robert McCoy, Director</td>
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<tr>
<td>Graduate School</td>
<td>Rich Collins, Director</td>
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<tr>
<td>Information Technology</td>
<td>Mark Kondrak, Chief Information Technology Officer</td>
</tr>
<tr>
<td>International Arctic Research Center</td>
<td>Hajo Eicken, Director</td>
</tr>
<tr>
<td>International Programs and Initiatives</td>
<td>Vacant, Director</td>
</tr>
<tr>
<td>Liberal Arts, College of</td>
<td>Ellen Lopez, Dean</td>
</tr>
<tr>
<td>Libraries</td>
<td>Karen Jensen, Director</td>
</tr>
</tbody>
</table>
Management, School of Marine Science, Institute of Museum of the North, University of Alaska Natural Science and Mathematics, College of Northern Engineering, Institute of One Health Research, Center for Research Rural, Community and Native Education Rural and Community Development, College of --Bristol Bay Campus --Chukchi Campus --Interior Alaska Campus --Kuskokwim Campus --Northwest Campus Student Affairs Summer Sessions and Lifelong Learning University Relations

Governance

Governance

ASUAF Faculty Senate Staff Council

Faculty

The abbreviation that follows the person's title indicates the University of Alaska Fairbanks unit in which the employee works.

The abbreviations are:

ACEP Alaska Center for Energy and Power
AFES Agricultural and Forestry Experiment Station
AKCFWRU Alaska Cooperative Fish and Wildlife Research Unit
ANLC Alaska Native Language Center
BBC Bristol Bay Campus
CANHR Center for Alaska Native Health Research
CC Chukchi Campus
CES College of Engineering and Mines
CEM Cooperative Extension Service
CFOS College of Fisheries and Ocean Sciences
CHANC Chancellor’s Office
CLA College of Liberal Arts
CNSM College of Natural Science and Mathematics
Abramowicz, Kenneth F. Associate Professor of Accounting and Finance, SOM. University of Tulsa '82 BA; '83 MS; University of Missouri—Columbia '91 PhD.

Adkison, Milo D. Professor of Fisheries, CFOS. University of California, Davis '84 BS; Montana State University, Bozeman '89 MS; Montana State University '90 MS; University of Washington '94 PhD.

Aggarwal, Srijan Associate Professor of Civil and Environmental Engineering, CEM. Indian Institute of Technology Delhi '07 BS; University of Minnesota - Twin Cities '09 MS; '11 PhD.

Aguilar–Islas, Ana Maria Associate Professor of Oceanography, CFOS. University of California, Santa Cruz '07 PhD.

Ahmadi, Mohabbat Associate Professor of Petroleum Engineering, CEM. Petroleum University of Technology, Ahwaz, Iran '00 BS; '03 MS; University of Texas at Austin '10 PhD.

Ahn, Il Sang Assistant Professor of Civil and Environmental Engineering, CEM. Seoul National University '91 BS; '93 MS; State University of New York at Buffalo '05 PhD.

Al-Badri, Maher Assistant Professor of Electrical and Computer Engineering, CEM. University of Baghdad '84 BS; University of Malaya '09 MEng; Concordia University '15 PhD.

Albertson, Leif E. Professor of Extension, CES. Youth, Family and Community Development Agent, Yukon–Kuskokwim District, CES. University of California, Berkeley '01 BA; Harvard University '06 MS.
Aldrich, BJ Assistant Professor of Allied Health, CTC. University of Alaska Fairbanks '83 BBA; University of Washington School of Medicine '96 MD.

Alexander, Kevin Wayne Associate Professor of Aviation Maintenance Technology, CTC. University of Alaska Fairbanks '96 Certificate; '05 AAS.

Alexander, Samuel Instructor of Homeland Security and Emergency Management, SOM. United States Military Academy '02 BS; Dartmouth College '14 MBA.

Alexeev, Vladimir Research Professor, IARC. Moscow Institute for Physics and Technology '84 MS; '88 PhD.

Allman, Elizabeth S. Professor of Mathematics, CNSM. Yale University '87 BS; University of California, Los Angeles '92 MA; '95 PhD.

Alu, Kelechukwu I. Assistant Professor of Developmental Mathematics, KUC/CRCD. Federal University of Technology Owerri, Nigeria '98 BTech; East Tennessee State University '11 MS.

Anahita, Sine Associate Professor of Sociology, CLA. Iowa State University '97 BS; '00 MS; '03 PhD.

Anger, Andreas Paul Wilhelm Professor of Applied Business and Accounting, CTC. University of Nebraska '90 MBA; University of Bayreuth, Germany '91 Diplom–Kaufmann.

Aoki, Miho Associate Professor of Art, CLA. Aichi University, Japan '91 Bed; Ohio State University '98 MFA.

Arkell, Jim Assistant Professor of Business Administration, SOM. Texas Tech University '86 BA; '89 JD.

Arndt, Katherine Louise Associate Professor of Library Science, LIB. University of Wisconsin–Madison '74 BA; University of Alaska Fairbanks '77 MA; '96 PhD.

Arp, Christopher Douglas Research Associate Professor, WERC/INE. Utah State University '06 PhD.

Arya, Sampurna Assistant Professor of Mining Engineering, CEM. Indian School of Mines '06 BS; University of Kentucky '13 MS; '18 PhD.

Aschwanden, Andreas Research Associate Professor, GI. ETH Zurich '04 MSc; '08 PhD.

Atkinson, Judith Ann Professor of Developmental Mathematics, CTC. Eastern Kentucky University '88 BS; University of Alaska Fairbanks '93 MS; '02 PhD.

Atkinson, Shannon Professor of Fisheries, CFOS. University of Hawaii '78 BS; University of Hawaii at Manoa '81 MS; Murdoch University '85 PhD.

Avdonin, Sergei Anatolievich Professor of Mathematics, CNSM. St. Petersburg State University '72 BS; '77 PhD.

Awoleke, Obadare Associate Professor of Petroleum Engineering, CEM. University of Ibadan, Nigeria '01 BS; Texas AM University '09 MS; '13 PhD.

B

Bacsujlaky, Mara C. Term Assistant Professor of Extension, CES. Youth, Family and Community Development Agent, CES. University of Pennsylvania '86 BA.

Baek, Jungho Professor, SOM. Hanyang University '91 BA; Korea University '93 MA; Michigan State University '04 MA; '04 PhD.

Baker, Carrie Crosby Professor of Film and Performing Arts, CLA. Middlebury College '96 BA; University of California, Irvine '02 MFA.

Baker, Victoria Nan Associate Professor, CFOS. University of Washington '81 BA; University of Alaska Anchorage '02 MEd.

Barnes, Brian M. Director, IAB. Professor, CNSM. University of California, Riverside '77 BS; University of Washington '83 PhD.

Barnes, David L. Professor of Civil and Environmental Engineering, CEM. New Mexico State University '85 BS; '87 MS; Colorado State University '97 PhD.

Barry, Ronald P. Professor of Statistics, CNSM. University of Alaska Anchorage '84 AA; University of Alaska Fairbanks '85 BS; '87 MS; University of California, Irvine '91 PhD.

Barry, Timothy Joseph Assistant Professor of Developmental Mathematics, CTC. University of Alaska Fairbanks '07 BS; '17 MS.

Beaudreau, Anne Associate Professor, CFOS. Harvard University '01 AB; University of Washington '09 PhD.

Bell, Scott Votaw Associate Vice Chancellor for Facilities Services, VCAS. University of Alaska Fairbanks '82 BS.

Belz, Nathan P. Associate Professor of Civil Engineering, CEM. University of Maine '06 BS; '08 MS; University of Vermont '13 PhD.
Bennett, Alec Instructor of Homeland Security and Emergency Management, SOM. University of Alaska Southeast ’05 BS; University of Alaska Fairbanks ’18 MSDM.

Benowitz, Jeffrey Apple Research Associate Professor, GI. University of Alaska Fairbanks ’92 BS; ’04 MFA; ’12 PhD.

Berge, Anna Mary Sophia Professor of Linguistics, CLA. University of Wisconsin–Madison ’88 BA; University of California, Berkeley ’91 MA; ’92 MLIS; ’97 PhD.

Berman Williams, Leah Wrenn Professor of Mathematics, CNSM. Lewis and Clark College ’97 BA; University of Washington ’01 MS; University of Washington ’02 PhD.

Berndt, Kenneth (Richie) Assistant Professor of Emergency Services, CTC. Montana State University ’19 BA.

Berry, Kevin T. Professor of Accounting and Finance, SOM. Associate Dean, SOM. Bradley University ’89 BS; University of Missouri–Columbia ’90 MAcc; Oklahoma State University ’95 PhD.

Bersamin, Andrea Associate Professor of Nutrition, CNSM/IAB. University of California, Berkeley ’99 BA; University of California, Davis ’06 PhD.

Bhatt, Uma S. Professor, CNSM/GI. University of Pittsburgh ’83 BA; ’83 BSE; University of Wisconsin ’89 MS; ’96 PhD.

Black, Jessica C. Assistant Professor, DANSRD/CRCD. University of Alaska Fairbanks ’01 BSW; Washington University in St. Louis ’04 MSW; ’17 PhD.

Blake, John E. Associate Vice Chancellor for Research, CRS. Director of Research Integrity, CRS. University of Saskatchewan ’80 DVM; ’87 MVetSc.

Blanchard, Arny L. Professor, CFOS. University of Alaska Fairbanks ’89 BS; ’99 MS; ’06 PhD.

Bluehorse, Byron Assistant Professor of Tribal Management, IAC/CRCD.

Boldt, Frank Assistant Professor of Justice, CLA. University of Colorado ’14 BA; University of Alaska Fairbanks ’16 MA.

Bolton, William R. Research Associate Professor, IARC. California Lutheran University ’91 BA; University of Alaska Fairbanks ’96 MS; ’06 PhD.

Bossert, Katrina E. Assistant Professor of Electrical and Computer Engineering, CEM and GI. University of Colorado, Boulder ’10 BS; ’10 MS; ’15 PhD.

Bouffard, Troy Instructor of Homeland Security and Emergency Management, SOM. University of Alaska Fairbanks ’13 BA; ’16 MA.

Bowman, Latrice Nichelle Instructor of Mathematics, CNSM. University of Alaska Fairbanks ’99 AA; ’99 BS; ’02 MS; Northcentral University ’19 PhD.

Boylan, Brandon M. Associate Professor, CLA. Mercyhurst College ’03 BA; University of Limerick ’04 MA; University of Pittsburgh ’13 PhD.

Braheur, James J. Professor of Art, CLA. Indiana University of Pennsylvania ’87 BFA; Louisiana State University ’90 MFA.

Breathnach, Greg A. Associate Professor of Quantitative Ecology, CNSM/IAB. University of Minnesota ’98 BS; Texas AM University ’02 MS; Dalhousie University ’09 PhD.

Breen, Amy Lynn Assistant Research Professor, IARC. College of the Atlantic ’94 BA; University of Missouri–Columbia ’00 MS; University of Alaska Fairbanks ’10 PhD.

Bret–Harte, Marion Syndonia Professor of Plant Biology, CNSM/IAB. Reed College ’83 BA; Stanford University ’90 PhD.

Brigham, Lawton W. Distinguished Professor of Geography and Arctic Policy, SNRE. U.S. Coast Guard Academy ’70 BS; Rensselaer Polytechnic Institute ’79 MS; United States Naval War College ’82 Diploma; University of Cambridge ’96 MPhil; ’00 PhD.

Brightwell, Geraldine Anne Professor of English, CLA. Bristol Polytechnic ’87 BA; University of East Anglia ’89 MA; University of Alaska Fairbanks ’94 MFA; University of Minnesota ’04 PhD.

Brinkman, Todd Jared Associate Professor, CNSM/IAB. Minnesota State University ’00 BS; South Dakota State University ’03 MSc; University of Alaska Fairbanks ’09 PhD.

Bristow, William A. Professor of Electrical and Computer Engineering, CEM and GI. University of Alaska Fairbanks ’88 BS; ’92 PhD.

Brooks, Catherine Ann Associate Professor, DANSRD/CRCD. Pennsylvania State University ’90 BS; ’92 MS.

Brover, Ronald Hopson Instructor of Inupiaq Eskimo, ANLC. Sorbonne University (France) ’76 AA; University of Alaska Fairbanks ’14 BA.

Brown, Stephen Castlebury Professor of Extension, Agriculture and Horticulture Agent, Copper River/Matanuska–Susitna District, CES. Texas AM University ’87 BS; University of Texas at San Antonio ’92 MS; State University of New York at Syracuse ’99 PhD.

Brown, Leah Term Professor of Secondary Education, SOE. University of Texas Austin ’94 BA; Texas AM University ’04 MEd.
Bueer, Ed Professor of Mathematics (Applied), CNSM. California State University, Chico ’91 BS; Cornell University ’94 MS; ’97 PhD.

Bult–Ito, Abel Professor of Biology, CNSM. University of Groningen ’85 BS; ’88 MS; Wesleyan University ’94 PhD.

C

Cahill, Catherine Frances Professor of Chemistry, CNSM. Director, Alaska Center for Unmanned Aircraft Systems Integration. University of California, Davis ’90 BS; University of Washington ’94 MS; University of Nevada, Reno ’96 PhD.

Calhoun, Kendra Louise Term Instructor, Youth, Family and Community Development Agent, CES. University of California, Santa Cruz ’95 BA; University of Alaska Fairbanks ’10 MS.

Carlson, Cameron D. Assistant Professor of Homeland Security and Emergency Management, SOM. Director, Center for the Study of Security, Cyber, Hazards, Response and Preparedness, SOM. Monmouth University ’86 BS; Webster University ’95 MA; University of Alaska Fairbanks ’17 PhD.

Carlson, Mary Term Assistant Professor of Elementary Education, SOE. University of Alaska Fairbanks ’92 BA; University of Alaska Anchorage ’00 MEd.

Carothers, Courtney L. Professor of Fisheries, CFOS. Cornell University ’00 BA; University of Washington ’04 MA; ’08 PhD.

Carr, Richard S. Professor of English, CLA. Director, Writing Center, CLA. Department Chair, English, CLA. University of Wisconsin ’72 BA; University of Iowa ’75 MA; University of Minnesota ’94 PhD.

Carroll, Jennifer Lee Linkous Assistant Professor, DANSRD/CRCD. Harvard University ’90 BA; University of Alaska Fairbanks ’95 MA; ’10 PhD.

Cascio, Julie Marie Professor of Extension, Youth, Family and Community Development Agent, Copper River/Matanuska–Susitna District, CES. University of Wisconsin–Stout ’83 BS; Oregon State University ’94 MEd.

Castellini, Michael A. Principal Investigator, Research Enrichment Core Director, Biomedical Learning and Student Training. University of California, San Diego ’75 BA; Scripps Institution of Oceanography ’81 PhD.

Celaire, Jaunelle Roberta Professor of Music Voice, CLA. Anderson University ’88 BA; Bowling Green State University ’00 MM; University of Michigan ’03 DMA.

Chappell, Glenn Gilford Associate Professor of Computer Science, CEM. University of Kansas ’88 BS; ’90 MA; University of Illinois ’96 PhD.

Charles, Stephen Walkie Associate Professor of Yup‘ik Language, CLA. University of Alaska Fairbanks ’88 BEd; University of Massachusetts, Amherst ’93 MEd; University of Alaska Fairbanks ’11 PhD.

Chen, Cheng–fu Associate Professor of Mechanical Engineering, CEM. National Taiwan University, Taipei ’88 BS; ’90 MS; University of Wisconsin–Madison ’00 PhD.

Chen, Haiwei Associate Professor of Accounting and Finance, SOM. Jilin University ’88 BA; University of West Georgia ’91 MBA; Emory University ’98 PhD.

Chen, Jiguo Associate Professor of Virology, CNSM/IAB. Nanchang University ’83 BS; Chinese Academy of Sciences ’90 MS; Osaka University Medical School ’00 PhD.

Cherry, Jessica E. Research Assistant Professor, IARC/INE. Columbia University ’99 BS; ’02 MA; ’03 MS; ’06 PhD.

Child, Robin L. Term Assistant Professor of Elementary Education, SOE. Wheaton College ’08 BA; University of Alaska Fairbanks ’17 MEd.

Chowdhury, Ataur R. Associate Professor of Physics, CNSM. Dhaka University ’77 BS; Clark University ’85 PhD.

Clark, Jamie L. Associate Professor of Anthropology, CLA. Northwestern University ’02 BA; University of Michigan ’04 MA; ’09 PhD.

Coakley, Bernard James Professor, CNSM. University of Michigan ’81 BS; Louisiana State University ’88 MS; Columbia University ’89 MPhil; ’91 PhD.

Coen, Ross Assistant Professor of History, CLA. University of Alaska Fairbanks ’99 BA; ’05 MA.

Coffman, Christine Elisabeth Professor of English, CLA. Cornell University ’94 AB; University of Southern California ’97 MA; ’01 PhD.

Coker, Robert H. Professor of Biology, CNSM/IAB. North Georgia College ’86 BS; ’89 MEd; University of Mississippi ’95 PhD.

Collins, Richard L. Professor of Atmospheric Sciences, CNSM/GI. Director, GRAD. National University of Ireland ’86 BE; Case Western Reserve University ’88 MS; University of Illinois ’94 PhD.

Collins, Roy Eric Associate Professor of Marine Science, CFOS. Washington State University ’02 BS; University of Washington ’06 MS; ’09 PhD.

Conde, Mark G. Professor of Physics, CNSM/GI. University of Tasmania ’82 BS; University of Adelaide ’91 PhD.
Conell, Shawn Associate Professor of Automotive Technology, CTC. Front Range Community College ’91 Certificate.

Conner, Laura Diane Research Associate Professor, Gl. University of Colorado at Boulder ’95 BA; Montana State University ’98 MS; University of Washington ’01 MS; University of Arizona ’07 PhD.

Cooper, Amy Bye Kellum Instructor of Accounting and Finance, SOM. Birmingham–Southern College ’00 BS; University of Washington ’01 MPAcc.

Cooper, Gordon Burns Professor of English, CLA. Yale University ’83 BA; University of Texas ’86 MA; ’89 PhD.

Cost, Douglas Scott Assistant Professor of Secondary Education, SOE. University of Southern California ’95 BA; California State University, Northridge ’05 MA; University of Alaska Fairbanks ’13 MFA; ’17 PhD.

Coyle, Kenneth Research Assistant Professor of Oceanography, CFOS. University of Washington ’71 BS; University of Alaska Fairbanks ’74 MS; ’97 PhD.

Criddle, Keith Richard Ted Stevens Distinguished Professor of Marine Policy, CFOS. Professor of Fisheries, CFOS. California State University, Sacramento ’82 BS; University of California, Davis ’84 MS; ’89 PhD.

Cronin, Matthew Anthony Research Professor of Animal Genetics, SNRE. State University of New York ’76 BS; Montana State University ’86 MS; Yale University ’89 PhD.

Croskrey, Wendy E. Professor of Art, CLA. University of Minnesota ’85 BFA; Ohio State University ’90 MFA.

Cundiff, Nicole LeAnn Associate Professor of Business Administration, SOM. Southern Illinois University ’02 BA; ’05 MBA; ’07 MA; ’10 PhD.

Cunningham, Keith Wayne Research Associate Professor, IARC. .

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