B.A., MATHEMATICS

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></td>
<td>Pre-major Requirement</td>
<td></td>
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<tr>
<td></td>
<td>Students must be ready to matriculate into</td>
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<tr>
<td></td>
<td>MATH F251X before they will be allowed to</td>
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<tr>
<td></td>
<td>declare mathematics as their major.</td>
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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. (<a href="http://catalog.uaf.edu/bachelors/">http://catalog.uaf.edu/bachelors/</a>)</td>
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<td></td>
<td>General Education Requirements</td>
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<td>Complete the general education requirements. (<a href="http://catalog.uaf.edu/bachelors/general-education-requirements/">http://catalog.uaf.edu/bachelors/general-education-requirements/</a>)</td>
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<tr>
<td></td>
<td>As part of the general education requirements, complete:</td>
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<tr>
<td></td>
<td>MATH F251X Calculus I</td>
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<tr>
<td></td>
<td>B.A. Degree Requirements</td>
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<tr>
<td></td>
<td>Complete the B.A. degree requirements. (<a href="http://catalog.uaf.edu/bachelors/summary-of-bachelors-degree-reqs/#bachelorofartstext">http://catalog.uaf.edu/bachelors/summary-of-bachelors-degree-reqs/#bachelorofartstext</a>)</td>
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<td>As part of the B.A. requirements, complete:</td>
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<tr>
<td></td>
<td>MATH F252X Calculus II</td>
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<td>Program Requirements</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 F265 Introduction to Mathematical Proofs</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MATH F314 Linear Algebra</td>
<td>3</td>
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<tr>
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<td>Complete one from the following concentrations:</td>
<td>29</td>
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<tr>
<td></td>
<td>Mathematics Concentration</td>
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<tr>
<td></td>
<td>MATH F401 Introduction to Real Analysis</td>
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<tr>
<td></td>
<td>MATH F405 Abstract Algebra</td>
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<td></td>
<td>MATH F490 Senior Seminar</td>
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<tr>
<td></td>
<td>Complete at least 21 additional credits of</td>
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<tr>
<td></td>
<td>electives. Following are some suggested elective packages:</td>
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<tr>
<td></td>
<td>Pure Math:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MATH F305 Geometry</td>
<td></td>
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<tr>
<td></td>
<td>MATH F320 Topics in Combinatorics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>or MATH F321 Number Theory</td>
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<tr>
<td></td>
<td>MATH F404 Introduction to Topology</td>
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<tr>
<td></td>
<td>MATH F422 Introduction to Complex Analysis</td>
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<td></td>
<td>Additional 9 elective credits</td>
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<td></td>
<td>Applied Math:</td>
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<tr>
<td></td>
<td>MATH F302 Differential Equations</td>
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<tr>
<td></td>
<td>MATH F421 Applied Analysis</td>
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<tr>
<td></td>
<td>MATH F422 Introduction to Complex Analysis</td>
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<tr>
<td></td>
<td>MATH F460 Mathematical Modeling</td>
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<tr>
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<td>Complete two from the following:</td>
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<tr>
<td></td>
<td>MATH F307 Discrete Mathematics</td>
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<tr>
<td></td>
<td>MATH F310 Numerical Analysis</td>
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<tr>
<td></td>
<td>STAT F300 Statistics</td>
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<tr>
<td></td>
<td>Statistics Concentration</td>
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<tr>
<td></td>
<td>CS F201 Computer Science I</td>
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</tbody>
</table>

Requirements for Mathematics Teachers (Grades 7-12)
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.

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<tr>
<td></td>
<td>CS F201 Computer Science I</td>
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<tr>
<td></td>
<td>MATH F305 Geometry</td>
<td>3</td>
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<tr>
<td></td>
<td>MATH F316 Introduction to the History and</td>
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</tr>
<tr>
<td></td>
<td>Philosophy of Mathematics</td>
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<tr>
<td></td>
<td>STAT F300 Statistics</td>
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<tr>
<td></td>
<td>or MATH F371 Probability</td>
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<tr>
<td></td>
<td>and MATH F408 and Mathematical Statistics</td>
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<td>Complete one from the following:</td>
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<tr>
<td></td>
<td>MATH F320 Topics in Combinatorics</td>
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<tr>
<td></td>
<td>MATH F321 Number Theory</td>
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</tr>
<tr>
<td></td>
<td>MATH F307 Discrete Mathematics</td>
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<tr>
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<td>Complete two from the following:</td>
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<tr>
<td></td>
<td>MATH F302 Differential Equations</td>
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<tr>
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<td>MATH F310 Numerical Analysis</td>
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<tr>
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<td>MATH F421 Applied Analysis</td>
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<td>Course</td>
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<tr>
<td>MATH F422</td>
<td>Introduction to Complex Analysis</td>
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</tr>
<tr>
<td>MATH F460</td>
<td>Mathematical Modeling</td>
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