AIRFRAME AND POWERPLANT CERTIFICATE

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.

Airframe Certificate Requirements
< Back to Department (http://catalog.uaf.edu/academic-departments/aviation/)

Minimum Requirements for Airframe Certificate: 31 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>General University Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (<a href="http://catalog.uaf.edu/certificates/#gurcertificatestext">http://catalog.uaf.edu/certificates/#gurcertificatestext</a>)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Certificate Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the certificate requirements. (<a href="http://catalog.uaf.edu/certificates/#certificaterequirementstext">http://catalog.uaf.edu/certificates/#certificaterequirementstext</a>)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Airframe Program Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the following:</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>
<tr>
<td>AFPM F152</td>
<td>Federal Aviation Regulations</td>
<td>1</td>
</tr>
<tr>
<td>AFPM F153</td>
<td>Weight and Balance</td>
<td>1</td>
</tr>
<tr>
<td>AFPM F154</td>
<td>Ground Operations and Servicing</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>Airframe Structures Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the following:</td>
<td></td>
</tr>
<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>
</tr>
<tr>
<td></td>
<td>Airframe Systems and Components Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the following:</td>
<td></td>
</tr>
<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>
</tr>
</tbody>
</table>

Combined Systems and Components Requirements
Complete the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<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>
</tr>
<tr>
<td></td>
<td>Total Credits</td>
<td>31</td>
</tr>
</tbody>
</table>

1 As part of the certificate requirements, the communication, computation and human relations contents are embedded in the major required courses for this program.

Powerplant Certificate Requirements
< Back to Department (http://catalog.uaf.edu/academic-departments/aviation/)

Minimum Requirements for Powerplant Certificate: 31 credits
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></td>
<td>General University Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general university requirements. (<a href="http://catalog.uaf.edu/certificates/#gurcertificatestext">http://catalog.uaf.edu/certificates/#gurcertificatestext</a>)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Certificate Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the certificate requirements. (<a href="http://catalog.uaf.edu/certificates/#certificaterequirementstext">http://catalog.uaf.edu/certificates/#certificaterequirementstext</a>)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Powerplant Program Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the following:</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>
<tr>
<td>AFPM F152</td>
<td>Federal Aviation Regulations</td>
<td>1</td>
</tr>
<tr>
<td>AFPM F153</td>
<td>Weight and Balance</td>
<td>1</td>
</tr>
<tr>
<td>AFPM F154</td>
<td>Ground Operations and Servicing</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>Powerplant Theory and Maintenance Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the following:</td>
<td></td>
</tr>
<tr>
<td>AFPM F235</td>
<td>Aircraft Reciprocating Engines</td>
<td>4.5</td>
</tr>
<tr>
<td>AFPM F240</td>
<td>Turbine Engines</td>
<td>2</td>
</tr>
<tr>
<td>AFPM F271</td>
<td>Powerplant Inspections</td>
<td>0.5</td>
</tr>
<tr>
<td>AFPM F272</td>
<td>Powerplant Testing</td>
<td>0.5</td>
</tr>
</tbody>
</table>

Powerplant and Systems Components Requirements
Complete the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFPM F231</td>
<td>Powerplant Electrical Systems</td>
<td>1.5</td>
</tr>
<tr>
<td>AFPM F244</td>
<td>Lubricating Systems</td>
<td>1.5</td>
</tr>
<tr>
<td>AFPM F245</td>
<td>Ignition Systems</td>
<td>2</td>
</tr>
<tr>
<td>AFPM F246</td>
<td>Fuel Metering Systems</td>
<td>2</td>
</tr>
</tbody>
</table>
As part of the certificate requirements, the communication, computation and human relations content is embedded in the major required courses for this program.

**Airframe and Powerplant Certificate Requirements**

< Back to Department [http://catalog.uaf.edu/academic-departments/aviation/]

**Minimum Requirements for Airframe and Powerplant Certificate: 49 credits**

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></td>
<td><strong>General University Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the general university requirements. [<a href="http://catalog.uaf.edu/certificates/#gurcertificatestext">http://catalog.uaf.edu/certificates/#gurcertificatestext</a>]</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Certificate Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the certificate requirements. [<a href="http://catalog.uaf.edu/certificates/#certificaterequirementstext">http://catalog.uaf.edu/certificates/#certificaterequirementstext</a>]</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Airframe and Powerplant Program Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the following:</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>Physica 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>
<td>1</td>
</tr>
<tr>
<td>AFPM F154</td>
<td>Ground Operations and Servicing</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td><strong>Airframe Structures Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the following:</td>
<td></td>
</tr>
<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 F248</td>
<td>Induction Systems</td>
<td>0.5</td>
</tr>
<tr>
<td>AFPM F249</td>
<td>Powerplant Cooling Systems</td>
<td>0.5</td>
</tr>
<tr>
<td>AFPM F250</td>
<td>Powerplant Exhaust Systems</td>
<td>0.5</td>
</tr>
<tr>
<td>AFPM F252</td>
<td>Propellers</td>
<td>2</td>
</tr>
<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>
</tr>
<tr>
<td>AFPM F260</td>
<td>Aircraft Landing Gear Systems</td>
<td>1.5</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>
</tr>
<tr>
<td>AFPM F271</td>
<td>Powerplant Inspections</td>
<td>0.5</td>
</tr>
<tr>
<td>AFPM F272</td>
<td>Powerplant Testing</td>
<td>0.5</td>
</tr>
<tr>
<td>AFPM F273</td>
<td>Transport Category Aircraft</td>
<td>1</td>
</tr>
<tr>
<td>AFPM F274</td>
<td>Ice and Rain Control Systems</td>
<td>0.5</td>
</tr>
<tr>
<td>AFPM F276</td>
<td>Communications and Navigation Systems</td>
<td>0.5</td>
</tr>
<tr>
<td>AFPM F278</td>
<td>Cabin Atmosphere Control Systems</td>
<td>1</td>
</tr>
<tr>
<td>AFPM F291</td>
<td>Hydraulic and Pneumatic Systems</td>
<td>1.5</td>
</tr>
<tr>
<td>AFPM F292</td>
<td>Aircraft Landing Gear Systems</td>
<td>1.5</td>
</tr>
<tr>
<td>AFPM F293</td>
<td>Aircraft Electrical Systems</td>
<td>4.5</td>
</tr>
<tr>
<td>AFPM F294</td>
<td>Turbine Engines</td>
<td>2</td>
</tr>
<tr>
<td>AFPM F295</td>
<td>Ignition Systems</td>
<td>2</td>
</tr>
<tr>
<td>AFPM F296</td>
<td>Fuel Metering Systems</td>
<td>2</td>
</tr>
<tr>
<td>AFPM F297</td>
<td>Induction Systems</td>
<td>0.5</td>
</tr>
<tr>
<td>AFPM F298</td>
<td>Powerplant Cooling Systems</td>
<td>0.5</td>
</tr>
<tr>
<td>AFPM F299</td>
<td>Powerplant Exhaust Systems</td>
<td>0.5</td>
</tr>
<tr>
<td>AFPM F300</td>
<td>Propellers</td>
<td>2</td>
</tr>
<tr>
<td>AFPM F301</td>
<td>Fuel Systems</td>
<td>1.5</td>
</tr>
<tr>
<td>AFPM F302</td>
<td>Fire Protection Systems</td>
<td>0.5</td>
</tr>
<tr>
<td>AFPM F303</td>
<td>Instrument Systems</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td><strong>Combined Systems and Components Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the following:</td>
<td></td>
</tr>
<tr>
<td>AFPM F306</td>
<td>Sheet Metal Structures</td>
<td>3</td>
</tr>
<tr>
<td>AFPM F307</td>
<td>Aircraft Welding</td>
<td>1.5</td>
</tr>
<tr>
<td>AFPM F308</td>
<td>Assembly and Rigging</td>
<td>1.5</td>
</tr>
<tr>
<td>AFPM F309</td>
<td>Airframe Inspections</td>
<td>0.5</td>
</tr>
<tr>
<td>AFPM F310</td>
<td>Airframe Testing</td>
<td>0.5</td>
</tr>
<tr>
<td>AFPM F311</td>
<td>Transport Category Aircraft</td>
<td>1</td>
</tr>
<tr>
<td>AFPM F312</td>
<td>Ice and Rain Control Systems</td>
<td>0.5</td>
</tr>
<tr>
<td>AFPM F313</td>
<td>Communications and Navigation Systems</td>
<td>0.5</td>
</tr>
<tr>
<td>AFPM F315</td>
<td>Cabin Atmosphere Control Systems</td>
<td>1</td>
</tr>
<tr>
<td>AFPM F316</td>
<td>Hydraulic and Pneumatic Systems</td>
<td>1.5</td>
</tr>
<tr>
<td>AFPM F317</td>
<td>Aircraft Landing Gear Systems</td>
<td>1.5</td>
</tr>
<tr>
<td>AFPM F318</td>
<td>Aircraft Electrical Systems</td>
<td>1.5</td>
</tr>
<tr>
<td>AFPM F319</td>
<td>Turbine Engines</td>
<td>2</td>
</tr>
<tr>
<td>AFPM F320</td>
<td>Ignition Systems</td>
<td>2</td>
</tr>
<tr>
<td>AFPM F321</td>
<td>Fuel Metering Systems</td>
<td>2</td>
</tr>
<tr>
<td>AFPM F322</td>
<td>Induction Systems</td>
<td>1</td>
</tr>
<tr>
<td>AFPM F323</td>
<td>Powerplant Cooling Systems</td>
<td>0.5</td>
</tr>
<tr>
<td>AFPM F324</td>
<td>Powerplant Exhaust Systems</td>
<td>0.5</td>
</tr>
<tr>
<td>AFPM F325</td>
<td>Propellers</td>
<td>2</td>
</tr>
<tr>
<td>AFPM F326</td>
<td>Fuel Systems</td>
<td>1.5</td>
</tr>
<tr>
<td>AFPM F327</td>
<td>Fire Protection Systems</td>
<td>0.5</td>
</tr>
<tr>
<td>AFPM F328</td>
<td>Instrument Systems</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td><strong>Powerplant Theory and Maintenance Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the following:</td>
<td></td>
</tr>
<tr>
<td>AFPM F332</td>
<td>Sheet Metal Structures</td>
<td>3</td>
</tr>
<tr>
<td>AFPM F333</td>
<td>Aircraft Welding</td>
<td>1.5</td>
</tr>
<tr>
<td>AFPM F334</td>
<td>Assembly and Rigging</td>
<td>1.5</td>
</tr>
<tr>
<td>AFPM F335</td>
<td>Airframe Inspections</td>
<td>0.5</td>
</tr>
<tr>
<td>AFPM F336</td>
<td>Airframe Testing</td>
<td>0.5</td>
</tr>
<tr>
<td>AFPM F337</td>
<td>Transport Category Aircraft</td>
<td>1</td>
</tr>
<tr>
<td>AFPM F338</td>
<td>Ice and Rain Control Systems</td>
<td>0.5</td>
</tr>
<tr>
<td>AFPM F339</td>
<td>Communications and Navigation Systems</td>
<td>0.5</td>
</tr>
<tr>
<td>AFPM F340</td>
<td>Cabin Atmosphere Control Systems</td>
<td>1</td>
</tr>
<tr>
<td>AFPM F341</td>
<td>Hydraulic and Pneumatic Systems</td>
<td>1.5</td>
</tr>
<tr>
<td>AFPM F342</td>
<td>Aircraft Landing Gear Systems</td>
<td>1.5</td>
</tr>
<tr>
<td>AFPM F343</td>
<td>Aircraft Electrical Systems</td>
<td>1.5</td>
</tr>
<tr>
<td>AFPM F344</td>
<td>Turbine Engines</td>
<td>2</td>
</tr>
<tr>
<td>AFPM F345</td>
<td>Ignition Systems</td>
<td>2</td>
</tr>
<tr>
<td>AFPM F346</td>
<td>Fuel Metering Systems</td>
<td>2</td>
</tr>
<tr>
<td>AFPM F347</td>
<td>Induction Systems</td>
<td>0.5</td>
</tr>
<tr>
<td>AFPM F348</td>
<td>Powerplant Cooling Systems</td>
<td>0.5</td>
</tr>
<tr>
<td>AFPM F349</td>
<td>Powerplant Exhaust Systems</td>
<td>0.5</td>
</tr>
<tr>
<td>AFPM F350</td>
<td>Propellers</td>
<td>2</td>
</tr>
<tr>
<td>AFPM F351</td>
<td>Fuel Systems</td>
<td>1.5</td>
</tr>
<tr>
<td>AFPM F352</td>
<td>Fire Protection Systems</td>
<td>0.5</td>
</tr>
<tr>
<td>AFPM F353</td>
<td>Instrument Systems</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td><strong>Powerplant Systems and Components Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete the following:</td>
<td></td>
</tr>
<tr>
<td>AFPM F357</td>
<td>Sheet Metal Structures</td>
<td>3</td>
</tr>
<tr>
<td>AFPM F358</td>
<td>Aircraft Welding</td>
<td>1.5</td>
</tr>
<tr>
<td>AFPM F359</td>
<td>Assembly and Rigging</td>
<td>1.5</td>
</tr>
<tr>
<td>AFPM F360</td>
<td>Airframe Inspections</td>
<td>0.5</td>
</tr>
<tr>
<td>AFPM F361</td>
<td>Airframe Testing</td>
<td>0.5</td>
</tr>
<tr>
<td>AFPM F362</td>
<td>Transport Category Aircraft</td>
<td>1</td>
</tr>
<tr>
<td>AFPM F363</td>
<td>Ice and Rain Control Systems</td>
<td>0.5</td>
</tr>
<tr>
<td>AFPM F364</td>
<td>Communications and Navigation Systems</td>
<td>0.5</td>
</tr>
<tr>
<td>AFPM F365</td>
<td>Cabin Atmosphere Control Systems</td>
<td>1</td>
</tr>
<tr>
<td>AFPM F366</td>
<td>Hydraulic and Pneumatic Systems</td>
<td>1.5</td>
</tr>
<tr>
<td>AFPM F367</td>
<td>Aircraft Landing Gear Systems</td>
<td>1.5</td>
</tr>
</tbody>
</table>

Total Credits 49

1 As part of the certificate requirements, the communication, computation and human relations contents are embedded in the major required courses for this program.