

MECHANICAL ENGINEERING B.S./M.S.

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

< Back to Department (<http://catalog.uaf.edu/academic-departments/mechanical-engineering/>)

Minimum Requirements for Mechanical Engineering B.S./M.S.: 148 credits

Students must satisfy the General University Requirements for minimum grades for the respective B.S. or M.S. program (major) requirements.

Code	Title	Credits
General University Requirements		
Complete the general university requirements. (http://catalog.uaf.edu/bachelors/#gurbachelorsdegreestext)		
General Education Requirements		
Complete the general education requirements. (http://catalog.uaf.edu/bachelors/#generaleducationrequirementstext)		35-40
B.S. Degree Requirements		
Complete the B.S. degree requirements. (http://catalog.uaf.edu/bachelors/#bachelorofsciencetext)		16
As part of the B.S. requirements, complete the following:		
MATH F252X	Calculus II	
PHYS F211X	General Physics I	
PHYS F212X	General Physics II	
Mechanical Engineering Program Requirements		
Complete the following:		
ES F100X	Engineering Alaska - An Introduction to Engineering	3
ES F201	Computer Techniques	3
ES F209	Statics	3
ES F210	Dynamics	3
ES F301	Engineering Analysis	3
ES F307	Elements of Electrical Engineering	3
ES F331	Mechanics of Materials	3
ES F341	Fluid Mechanics	4
ES F346	Introduction to Thermodynamics	3
MATH F253X	Calculus III	4
MATH F302	Differential Equations	3
ME F302	Dynamics of Machinery	4
ME F308	Instrumentation and Measurement	3

ME F313	Mechanical Engineering Thermodynamics	3
ME F321	Industrial Processes	3
ME F334	Elements of Material Science/Engineering	3
ME F403	Machine Design	3
ME F408	Mechanical Vibrations	3
ME F415	Thermal Systems Laboratory	3
ME F441	Heat and Mass Transfer	3
ME F486	Senior Design ¹	1
ME F487	Design Project ¹	3

Fundamentals of Engineering Examination

Complete the State of Alaska Fundamentals of Engineering examination.

Total Credits **118-123**

¹ Fulfills the baccalaureate capstone requirement.

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:

- coursework is completed in 10 years, and
- the student meets all Mechanical Engineering B.S. requirements.

Graduate Mechanical Engineering Program Requirements

Code	Title	Credits
General University Requirements		
Complete the graduate general university requirements. (http://catalog.uaf.edu/masters/#gurmastersdegreestext)		
Master's Degree Requirements		
Complete the master's degree requirements. (http://catalog.uaf.edu/masters/#typesofmastersdegrees)		
Graduate Mechanical Engineering Program Requirements		
Complete the following:		
<i>Program Electives</i>		15
Any F600-level ME Course; up to 6 credits may be at the F400 level ²		
<i>General Electives</i>		9
Any F600-level courses approved by the student's advisory committee; up to 6 credits may be at the F400 level ²		
Options		
Complete one of the following:		6
ME F699	Thesis	
ME F698	Non-thesis Research/Project	
Total Credits		30

² At least 15 total program and general elective credits must be at the F600 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

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for exceeding the seven-year limit, a mechanical engineering B.S. degree will be awarded if:

- coursework is completed in 10 years, and
- the student meets all Mechanical Engineering B.S. requirements.