

# MECHANICAL ENGINEERING: AUTOMOTIVE ENGINEERING, MS

## REQUIREMENTS

### MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (<http://guide.wisc.edu/graduate/#policiesandrequirements>), in addition to the program requirements listed below.

### NAMED OPTION REQUIREMENTS MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	Yes

### MODE OF INSTRUCTION DEFINITIONS

**Accelerated:** Accelerated programs are offered at a fast pace that condenses the time to completion. Students typically take enough credits aimed at completing the program in a year or two.

**Evening/Weekend:** Courses meet on the UW–Madison campus only in evenings and/or on weekends to accommodate typical business schedules. Students have the advantages of face-to-face courses with the flexibility to keep work and other life commitments.

**Face-to-Face:** Courses typically meet during weekdays on the UW–Madison Campus.

**Hybrid:** These programs combine face-to-face and online learning formats. Contact the program for more specific information.

**Online:** These programs are offered 100% online. Some programs may require an on-campus orientation or residency experience, but the courses will be facilitated in an online format.

### CURRICULAR REQUIREMENTS

#### Requirement Detail

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 18 credits

Minimum Graduate Coursework Requirement 15 credits must be graduate-level coursework. Refer to the Graduate School: Minimum Graduate Coursework (50%) Requirement policy: <https://policy.wisc.edu/library/UW-1244> (<https://policy.wisc.edu/library/UW-1244/>).

Overall 3.00 GPA required.  
Graduate GPA Requirement Refer to the Graduate School: Grade Point Average (GPA) Requirement policy: <https://policy.wisc.edu/library/UW-1203> (<https://policy.wisc.edu/library/UW-1203/>).

Other Grade Requirements Students must earn a C or above in all formal coursework.

Students may not have any more than two incompletes on their record at any one time.

Assessments and Examinations None.

Language Requirements No language requirements.

### REQUIRED COURSES

A minimum of 24 formal course credits\* are required (minimum of 15 credits in Mechanical Engineering taken at UW–Madison).

\*Formal credits are any course offering that is not a seminar course, thesis research course, or independent study course.

Code	Title	Credits
M E 903	Graduate Seminar (Two semesters are required and must be taken the first two semesters.)	0

A minimum of 12 credits (4 courses) must be taken from the courses listed:

M E 461	Thermal Systems Modeling	
M E 466	Air Pollution Effects, Measurements and Control	
M E 469	Internal Combustion Engines	
M E 561	Intermediate Thermodynamics	
M E 563	Intermediate Fluid Dynamics	
M E 564	Heat Transfer	
M E 569	Applied Combustion	
M E 572	Intermediate Gas Dynamics	
M E 573	Computational Fluid Dynamics	
M E 761	Topics in Thermodynamics	
M E 764	Advanced Heat Transfer I- Conduction	
M E 769	Combustion Processes	
M E 770	Advanced Experimental Instrumentation	
M E 774	Chem Kinetics of Combust Systems	
M E/CIV ENGR/ E M A 775	Turbulent Heat and Momentum Transfer	

During the summer term, students are required to enroll in the following 6 credits:

M E 669	Engine Experiments	3
M E 673	Internal Combustion Engine Simulations	3

### Advisor Approval of Study Plan

The faculty advisor must always approve the courses a student takes in the MS program. Students should schedule an appointment with their advisor when selecting their courses. During the final semester, the faculty advisor

will review the courses taken again and if approved, sign the warrant request form.

**Other Policy**

Students in this program may not take courses outside the prescribed curriculum without faculty advisor and program director approval.

Students in this program cannot enroll concurrently in other undergraduate or graduate degree programs.