ENGINEERING: ENGINE SYSTEMS, M.ENG.

This is a named option within the Engineering M.Eng (http://guide.wisc.edu/graduate/engineering-college-wide/engineering-meng).

The named option Engine Systems is the only online engineering master's degree focused on internal combustion engine development. This interactive, web-based program provides internal combustion engine engineers with a broad base of skills in:

- Dynamics and design
- Combustion and fluid mechanics
- Control and vibrations
- Global teamwork

The program is tailored for working engineers, offering:

- An online platform accessible to you from anywhere in the world
- Flexible learning times
- Courses and projects that apply immediately to real-world work
- A supportive structure that keeps you on track

ADMISSIONS

A small cohort of students is selected each fall term. Fall deadline is July 1.

Admission requirements for engineers interested in applying are:

- A B.S. degree in engineering or similar degree from an ABET-accredited program
- A minimum undergraduate grade point average (GPA) of 3.00 on the equivalent of the last 60 semester hours (approximately two years of work) or a master's degree with a minimum cumulative GPA of 3.00

This 30-credit program spans seven semesters, or three-and-a-half years. Students are required to attend a one-week residency on the UW–Madison campus each year of the program. For details, please contact Dr. Sandra Anderson, program director, at 608-890-2026; sandra.anderson@wisc.edu; or see the program website (https://epd.wisc.edu/online-degree/master-of-engineering-engine-systems).

GRADUATE SCHOOL ADMISSIONS

Graduate admissions is a two-step process between academic degree programs and the Graduate School. Applicants must meet requirements of both the program(s) and the Graduate School. Once you have researched the graduate program(s) you are interested in, apply online (https://grad.wisc.edu/admissions).

FUNDING

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (https://grad.wisc.edu/funding) is available from the Graduate School. Be sure to check with your program for individual policies and processes related to funding.

PROGRAM RESOURCES

Students in the Engineering M.Eng. programs are not permitted to accept teaching assistantships, project assistantships, research assistantships or other appointments that would result in a tuition waiver. Students in these programs cannot enroll in other graduate programs nor take courses outside the prescribed curriculum. If you intend to combine study in this program with other academic programs at UW–Madison, please contact Shainah Greene, graduate programs coordinator (shainah.greene@wisc.edu).

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

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

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

<table>
<thead>
<tr>
<th>Mode of Instruction</th>
<th>Face to Face</th>
<th>Evening/Weekend</th>
<th>Online</th>
<th>Hybrid</th>
<th>Accelerated</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Mode of Instruction Definitions

**Evening/Weekend**: These programs are offered in an evening and/or weekend format to accommodate working schedules. Enjoy the advantages of on-campus courses and personal connections, while keeping your day job. For more information about the meeting schedule of a specific program, contact the program.

**Online**: These programs are offered primarily online. Many available online programs can be completed almost entirely online with all online programs offering at least 50 percent or more of the program work online. Some online programs have an on-campus component that is often designed to accommodate working schedules. Take advantage of the convenience of online learning while participating in a rich, interactive learning environment. For more information about the online nature of a specific program, contact the program.

**Hybrid**: These programs have innovative curricula that combine on-campus and online formats. Most hybrid programs are completed on-campus with a partial or completely online semester. For more information about the hybrid schedule of a specific program, contact the program.

**Accelerated**: These on-campus programs are offered in an accelerated format that allows you to complete your program in a condensed time-frame. Enjoy the advantages of on-campus courses with minimal disruption to your career. For more information about the accelerated nature of a specific program, contact the program.

CURRICULAR REQUIREMENTS

Minimum Credit Requirement

- 30 credits
Minimum Residence Credit Requirement
16 credits

Minimum Graduate Coursework Requirement
All courses in this fixed curriculum program are graduate-level courses, identified with the Graduate Level Coursework attribute in the university’s Course Guide (https://registrar.wisc.edu/course-guide/), and are offered exclusively to Graduate students in the M.Eng. degree program.

Overall Graduate GPA Requirement
3.00 GPA required.

Other Grade Requirements
Must retake any courses for which a grade below C is recorded.

Assessments and Examinations
No formal examination required.

Language Requirements
No language requirements.

**REQUIRED COURSES**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>E P D 641</td>
<td>Essential Skills for Engineering Productivity</td>
<td>2</td>
</tr>
<tr>
<td>E P D 642</td>
<td>Thermal Systems Engineering</td>
<td>2</td>
</tr>
<tr>
<td>E P D 626</td>
<td>Engine Project Management</td>
<td>3</td>
</tr>
<tr>
<td>E P D 622</td>
<td>Engine Design I</td>
<td>2</td>
</tr>
<tr>
<td>E P D 623</td>
<td>Engine Design II</td>
<td>4</td>
</tr>
<tr>
<td>E P D 624</td>
<td>Engine Performance and Combustion</td>
<td>4</td>
</tr>
<tr>
<td>E P D 625</td>
<td>Engine Gas Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>E P D 643</td>
<td>Analysis of Trends in Engines - Legislative Drivers and Alternative Fuels</td>
<td>1</td>
</tr>
<tr>
<td>E P D 644</td>
<td>Analysis of Trends in Engines - Powertrain Technologies and Manufacturing</td>
<td>1</td>
</tr>
<tr>
<td>E P D 627</td>
<td>Perspectives on Engine Modeling</td>
<td>2</td>
</tr>
<tr>
<td>E P D 629</td>
<td>Powertrain Systems and Controls</td>
<td>4</td>
</tr>
</tbody>
</table>

**Policies**

**Graduate School Policies**

The Graduate School’s Academic Policies and Procedures (https://grad.wisc.edu/acadpolicy) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

**Named Option-Specific Policies**

**Graduate Program Handbook**

The Graduate Program Handbook (https://uwmadison.app.box.com/s/gdm737wsnc8iu551kaivz58skq7du4k) is the repository for all of the program’s policies and requirements.

**Prior Coursework**

**Graduate Work from Other Institutions**

With program approval, students are allowed to count graduate coursework from other institutions toward the minimum graduate degree credit requirement and the minimum graduate coursework (50%) requirement. No credits from other institutions can be counted toward the minimum graduate residence credit requirement. Coursework earned five or more years prior to admission to a master’s degree is not allowed to satisfy requirements.

**UW–Madison Undergraduate**

Up to 7 credits numbered 300 or above can be counted toward the minimum graduate degree credit requirement. Up to 7 credits of courses numbered 600 or above can be counted toward the minimum graduate coursework (50%) requirement. No credits can be counted toward the minimum graduate residence credit requirement. Coursework earned five or more years prior to admission to a master’s degree is not allowed to satisfy requirements.

**UW–Madison University Special**

With program approval, students are allowed to count up to 9 credits of coursework numbered 300 or above taken as a UW–Madison Special student toward the minimum graduate residence credit requirement, and the minimum graduate degree credit requirement, and up to 15 credits of courses numbered 700 or above taken as a UW–Madison Special student toward the minimum graduate coursework (50%) requirement. Coursework earned five or more years prior to admission to a master’s degree is not allowed to satisfy requirements.

**Probation**

The Graduate School regularly reviews the record of any student who earned grades of BC, C, D, F, or Incomplete in a graduate course (300 or above), or grade of U in research credits. This review could result in academic probation with a hold on future enrollment or in being suspended from the Graduate School.

1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

**Advisor / Committee**

All students have both a plan advisor and academic advisor (typically the program director or academic director for each program); programs without a fixed curriculum are required to meet with their advisor to outline an approved plan of study by the end of their first academic term.
CREDITS PER TERM ALLOWED
15 credits

TIME CONSTRAINTS
Master's degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

OTHER
Students enrolled in these programs are not permitted to accept teaching assistantships, project assistantships, research assistantships or other appointments that would result in a tuition waiver. Students in these programs cannot enroll in other graduate programs nor take courses outside the prescribed curriculum. If you intend to combine study in this program with other academic programs at UW-Madison, please contact Graduate Programs Coordinator Shainah Greene (Shainah.Greene@wisc.edu).

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES
Take advantage of the Graduate School's professional development resources (https://grad.wisc.edu/pd) to build skills, thrive academically, and launch your career.