MECHANICAL ENGINEERING, PHD

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.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

**Face to Face**

- 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.

**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.

**Accelerated**

- 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.

**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**: 60 credits
- **Minimum Residence Credit Requirement**: 32 credits
- **Minimum Graduate Coursework Requirement**: 30 credits must be graduate-level coursework. Details can be found in the Graduate School’s Minimum Graduate Coursework (50%) Requirement Policy: https://policy.wisc.edu/library/UW-1244 (https://policy.wisc.edu/library/UW-1244/)
- **Overall Requirement**: 3.00 GPA required. 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 Requirement:

- Students must earn a C or above in all formal coursework.
- Incompletes on their record at any one time.

Assessments and Examinations:

- The PhD candidate will need to pass a qualifying exam, preliminary exam, and a final defense in order to obtain a degree.

Language Requirements:

- No language requirements.

Graduate School and Degree Requirements:

- All doctoral students are required to complete a doctoral minor or graduate/professional certificate. Refer to the Graduate School Breadth Requirement in Doctoral Training policy: https://policy.wisc.edu/library/UW-1200 (https://policy.wisc.edu/library/UW-1200/).

REQUIRED COURSES

Two semesters of M E 903 Graduate Seminar are required. These should be taken the first two semesters the student is in residence. If an MS degree is received at UW–Madison, additional M E 903 credits are not required.

A minimum of 36 formal course credits beyond the BS degree are required. Formal credits are any course offering this is not a seminar course, thesis research course, or independent study course. This includes a minimum of 9 credits (usually three courses) numbered 700 or above. A minimum of 3 credits (usually one course) numbered 700 and above must be in Mechanical Engineering (M E (http://guide.wisc.edu/courses/m_e/)) and/or Engineering Mechanics (E M A (http://guide.wisc.edu/courses/e_m_a/)) taken at UW–Madison. A minimum of one (3 or more - credit) math course.

Math Course Options

The following courses would satisfy the math course requirement.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>M E 601</td>
<td>Special Topics in Mechanical Engineering (Topic “Computational Math w/Engr Apps”)</td>
<td></td>
</tr>
<tr>
<td>M E 964</td>
<td>Special Advanced Topics in Mechanical Engineering (Topics: &quot;App Comp Math w/ Eng Apps&quot; OR &quot;Comp Math with Apps in Eng&quot; OR &quot;Sci Computing for Apps in Eng&quot;)</td>
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<tr>
<td>E M A/E P 476</td>
<td>Introduction to Scientific Computing for Engineering Physics</td>
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<tr>
<td>E M A/E P 547</td>
<td>Engineering Analysis I</td>
<td></td>
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<tr>
<td>E M A/E P 548</td>
<td>Engineering Analysis II</td>
<td></td>
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<tr>
<td>MATH 321</td>
<td>Applied Mathematical Analysis</td>
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<tr>
<td>MATH 322</td>
<td>Applied Mathematical Analysis</td>
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<tr>
<td>400 and above Math Department courses</td>
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<tr>
<td>400 and above Statistics Department courses</td>
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<tr>
<td>Graduate “transfer credits” equivalent to the above</td>
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Acceptable courses for the remainder of the required 36 formal course credits (this total includes the courses taken for the PhD breadth requirement) are those numbered 400 and above.

Minimum of 18 thesis credits (M E 790 Master’s Research and Thesis, M E 890 PhD Research and Thesis, M E 990 Dissertator Research and Thesis) are required with an overall grade of S.