This resource is for ENGRUD students who entered the UW in AUT20 or later.

Mechanical Engineering
Graduation Requirements
University of Washington
https://me.washington.edu

ENGRUD Requirement Sheet – Key:
◆ = Placement Requirements;
★ = Pick one to satisfy placement requirements
Placement: July 1 at the end of first year

◆ E-FIG: ENGR 101 and GEN ST 199 (2cr)

**Mathematics (24cr)**
◆ MATH 124, 125, 126 - Calc w Analytic Geom I-III (15cr)
  MATH 307 - Intro to Differential Equations (3cr)
    [pr: MATH 125] OR AMATH 351
  MATH 308 - Matrix Algebra with Applications (3cr)
    [pr: MATH 126] OR AMATH 352
  MATH 309 - Linear Analysis (3cr)
    [pr: MATH 307 and MATH 308, or MATH 136]
      OR AMATH 353
      OR MATH 324

**Sciences (25cr)**
◆ CHEM 142 - General Chemistry (5cr)
★ CHEM 152 - General Chemistry (5cr)
  [pr: CHEM 142]
◆ PHYS 121 - Mechanics (5cr)
  [pr: MATH 125 or MATH 134]
★ PHYS 122 - Electromagnetism (5cr)
  [pr: MATH 125 or MATH 134; PHY 121]
★ PHYS 123 - Waves (5cr)
  [pr: MATH 126 or MATH 134; PHYS 122]

**Engineering General Education Requirements (32cr)**

**Written and Oral Communications:**
◆ English Composition (5cr)
  ENGR 231 - Intro to Technical Communication (3cr)
**Areas of Knowledge:**
Visual, Literary & Performing Arts - VLPA (10cr)
Individuals & Society - I&S (10cr)
Additional VLPA or I&S (4cr)
Diversity - DIV (3cr) - (may overlap with VLPA/I&S)

**Engineering Fundamentals (31-32cr)**

**Standard Option**
A A 210 - Engineering Statics (4cr)
  [pr: MATH 126; PHYS 121]
★ AMATH 301 - Beginning Scientific Computing (4cr)
  [pr: Either MATH 125, Q SCI 292, or MATH 135]
CEE 220 - Intro to Mechanics of Materials (4cr)
  [pr: AA 210]
E E 215 - Fundamentals of Electrical Engineering (4cr)
  [pr: MATH 136, or MATH 126 and either MATH 307 or AMATH 351, either of which may be taken concurrently; PHYS 122]
IND E 315 - Probability & Stats for Engineers (3cr)
  OR STAT 390 (4cr) OR AP STATS (score 3, 4, 5) by petition

**Mechanical Engineering Option Courses (19-26cr)**
Complete one option below. See department for list of approved courses.
a. Standard Option
b. Mechatronics Option
c. Nanoscience and Molecular Engineering Option
d. Biomechanics Option

**Free Electives (2cr)**
Additional coursework in any subject area not used elsewhere Degree.

Total credits required for graduation: 180cr

**Honors or accelerated sequences of chemistry, math and physics will satisfy the placement requirements. AMATH 351/352/353 may be alternatives to MATH 307/308/309, work with the department to confirm.**

Updated September 2020
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**Mechanical Engineering**

Sample Curriculum
University of Washington
[https://me.washington.edu](https://me.washington.edu)

Honors or accelerated sequences of chemistry, math and physics will satisfy the placement requirements. AMATH 351/352/353 may be alternatives to MATH 307/308/309, work with the department to confirm.

### Courses required to request placement for ENGRUD students:

- ENGR 101; MATH 124, 125, 126; CHEM 142; PHYS 121;
- English Composition; ENGRUD students who are interested ME should choose one of the following: AMATH 301, CHEM 152, ME 123, MSE 170, PHYS 122, PHYS 123.

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#### First Year

<table>
<thead>
<tr>
<th>Autumn Quarter</th>
<th>Winter Quarter</th>
<th>Spring Quarter</th>
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</thead>
<tbody>
<tr>
<td><strong>MATH 124 - Calc w/ Analytic Geom I</strong></td>
<td><strong>MATH 125 - Calc w/ Analytic Geom II</strong></td>
<td><strong>MATH 126 - Calc w/ Analytic Geom III</strong></td>
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<tr>
<td><strong>CHEM 142 - General Chemistry</strong></td>
<td><strong>CHEM 152 - General Chemistry</strong></td>
<td><strong>PHYS 121 - Mechanics</strong></td>
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<tr>
<td>VLPA / I&amp;S</td>
<td><strong>English Composition</strong></td>
<td><strong>VLPA / I&amp;S</strong></td>
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<td><strong>E-FIG: ENGR 101 &amp; GEN ST 199</strong></td>
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<tbody>
<tr>
<td>PHYS 122 - Electromagnetism</td>
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<td>CEE 220 - Mechanics of Materials</td>
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<td>A A 210 - Engineering Statics</td>
<td>MATH 308 - Matrix Algebra with Apps</td>
<td>MATH 309 - Linear Analysis</td>
</tr>
<tr>
<td>M E 123 - Intro to Visualization &amp; CAD</td>
<td>M E 230 - Kinematics &amp; Dynamics</td>
<td>MSE 170 - Fundamentals of Material Sci</td>
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<td>MATH 307 - Intro to Differential Equations</td>
<td>Free Elective</td>
<td>ENGR 231 - Intro to Technical Comm</td>
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#### Third Year

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<th>Spring Quarter</th>
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<tbody>
<tr>
<td>E E 215 - Fund of Electrical Engineering</td>
<td>M E 373 - Intro to System Dynamics</td>
<td>IND E 315 - Prob &amp; Stats for Engineers</td>
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<td>VLPA / I&amp;S</td>
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<td>M E Option Elective</td>
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#### Fourth Year

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<tr>
<th>Autumn Quarter</th>
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<tbody>
<tr>
<td>M E 395 - Intro to Mechanical Design</td>
<td>M E Option Elective</td>
<td>M E Option Elective</td>
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<tr>
<td>M E Option Elective</td>
<td>M E Option Elective</td>
<td>VLPA / I&amp;S</td>
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<td>VLPA / I&amp;S / DIV</td>
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