This resource is for ENGRUD students who entered the UW in AUT22 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 207 - Intro to Differential Equations (3cr)
[pr: MATH 125] OR AMATH 351
MATH 208 - Matrix Algebra with Applications (3cr)
[pr: MATH 126] OR AMATH 352
MATH 209 - Linear Analysis (3cr)
[pr: MATH 207 and MATH 208, or MATH 136]
OR AMATH 353
OR MATH 224

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 Inquiry:
Arts & Humanities – A&H (10cr)
Social Sciences - SSc (10cr)
Additional A&H or SSc (10cr)
Diversity - DIV (3cr) (may overlap with A&H or SSc)

Engineering Fundamentals (31-33cr)
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 207 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 STAT 290 -awarded via AP credit (5cr)

Engineering Fundamentals (31-32cr) Continued
★ M E 123 - Intro to Vis. and Computer-Aided Design (4cr)
[pr: MATH 125 or MATH 135]
M E 230 - Kinematics and Dynamics (4cr)
[pr: A A 210]
★ MSE 170 - Fundamentals of Materials Science (4cr)
[pr: CHEM 142, CHEM 143, or CHEM 145]

Departmental Core (45cr)
M E 323 - Engineering Thermodynamics (5cr)
M E 331 - Intro to Heat Transfer (4cr)
M E 333 - Intro to Fluid Mechanics (5cr)
M E 354 - Mechanics of Materials Lab (5cr)
M E 355 - Intro to Manufacturing Processes (4cr)
M E 356 - Machine Design Analysis (4cr)
M E 373 - Intro to System Dynamics (5cr)
M E 374 - Systems Dynamic Analysis and Design (5cr)
M E 395 - Intro to Mechanical Design (4cr)
M E 495 - Mechanical Engineering Design (4cr)

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.

Updated July 2022
This resource is for ENGRUD students who entered the UW in AUT22 or later.

This is a sample four-year plan for ENGRUD students that prepares them to be able to request placement at the end of the first year. It is intended to provide a framework for ENGRUD students to reference as they create their own individual academic plan.

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.

### First Year

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<thead>
<tr>
<th>Autumn Quarter</th>
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<th>Winter Quarter</th>
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<th>Spring Quarter</th>
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<td>CEE 220 - Mechanics of Materials</td>
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<td>M E 123 - Intro to Visualization &amp; CAD</td>
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<td>M E 230 - Kinematics &amp; Dynamics</td>
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<td>MSE 170 - Fundamentals of Material Sci</td>
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