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

Requirement Sheet Key
◆ = Upper-Division Admission Requirements

Mathematics (24 Credits)
◆ MATH 124 (5cr) - Calculus I
◆ MATH 125 (5cr) - Calculus II
◆ MATH 126 (5cr) - Calculus III
MATH 307 (3cr) - Differential Equations [pr: Math 125]
MATH 308 (3cr) - Matrix Algebra [pr: Math 126]
One course from the following:
MATH 309 (3cr) - Linear Analysis
-OR-
MATH 324 (3cr) - Adv. Multivariable Calculus [pr: Math 126]
(AMATH 351/352/353 may substitute for MATH 307/308/309)

Natural Sciences (25 Credits)
◆ CHEM 142 (5cr) - General Chem I with Lab
◆ CHEM 152 (5cr) - General Chem II with Lab
◆ PHYS 121 (5cr) - Mechanics with Lab I [pr: Math 124]
◆ PHYS 122 (5cr) - Electro/Oscillatory with Lab II
PHYS 123 (5cr) - Waves with Lab III

Written & Oral Communications (12 Credits)
◆ English Comp (5cr) - English Composition
ENGR 231 (3cr) - Intro to Technical Writing
Additional composition writing or ME 354 (4cr)

Visual, Literary & Performing Arts/Individuals & Society (VLPA/I&S) (24 Credits)
10 credits of VLPA
10 credits of I&S
4 credits of VLPA or I&S
3 credits of Diversity (DIV)
(DIV can overlap with VLPA or I&S)

Engineering Fundamentals (31 Credits)
◆ AA 210 (4cr) - Engineering Statics [pr: Math 126, Phys 121]
◆ CEE 220 (4cr) - Mechanics of Materials [pr: AA 210]
◆ ME 230 (4cr) - Kinematics & Dynamics [pr: AA 210]
AMATH 301 (4cr) - Beg. Scientific Computing [pr: Math 125]
ME 123 (4cr) - Intro to Visualization and CAD
MSE 170 (4cr) - Fundamentals of Materials Science
EE 215 (4cr) - Fundamentals of EE [pr: Math 126, Math 307]
IND E 315 (3cr) - Probability & Statistics for Engineers [pr: Math 307]
-OR-
STAT 390 (3cr) - Statistical Methods in Engr. & Sci. [pr: Math 126]

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

Mechanical Option Courses (19 Credits)
See ME Advising Guide online for list of courses.

Total Credits Required for Graduation (180 Credits)

Early Admission Requirements
1. Early Admission is an option for Autumn Quarter only.
2. Students must be enrolled at UW Seattle.
3. MATH 124, 125, & 126 or equivalent.
4. 10 credits of physical sciences + accompanying lab:
   CHEM 142, 152
   PHYS 121, 122, 123
5. 5 credits of English Composition.
6. 15 of the above credits must have been completed at UW.

Application Deadlines
Autumn 2018 admission: Early and Upper-Division - July 1st
Autumn 2019 admission and beyond: April 5th annually
**This is a sample four-year plan. It is intended to provide a framework for students to reference as they create their own individual academic plan.**

<table>
<thead>
<tr>
<th>Freshman - Autumn Quarter</th>
<th>Freshman - Winter Quarter</th>
<th>Freshman - Spring Quarter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math 124 - Calculus I</td>
<td>Math 125 - Calculus II</td>
<td>Math 126 - Calculus III</td>
</tr>
<tr>
<td>Chem 142 - Chem &amp; Lab I</td>
<td>Chem 152 - Chem &amp; Lab II</td>
<td>PHYS 121 - Mechanics &amp; Lab I</td>
</tr>
<tr>
<td>VLPA/I&amp;S</td>
<td>VLPA/I&amp;S</td>
<td>English Composition</td>
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</tbody>
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Quarter Total 15

<table>
<thead>
<tr>
<th>Sophomore - Autumn Quarter</th>
<th>Sophomore - Winter Quarter</th>
<th>Sophomore - Spring Quarter</th>
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</thead>
<tbody>
<tr>
<td>ME 123 - Intro to Visualizn. &amp; CAD</td>
<td>PHYS 123 - Waves &amp; Lab III</td>
<td>-OR- MATH 309 - Linear Analysis</td>
</tr>
<tr>
<td>MATH 307 - Differential Equations</td>
<td>VLPA/I&amp;S</td>
<td>AMATH 301 - Scientific Computing</td>
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Quarter Total 16

<table>
<thead>
<tr>
<th>Junior - Autumn Quarter</th>
<th>Junior - Winter Quarter</th>
<th>Junior - Spring Quarter</th>
</tr>
</thead>
<tbody>
<tr>
<td>ME 323 - Thermodynamics</td>
<td>ME 333 - Intro to Fluid Mechanics</td>
<td>ME 355 - Intro to Manuf. Processes</td>
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<tr>
<td>MSE 170 - Fund. of Materials Science</td>
<td>ME 354 - Behavior of Engr Materials</td>
<td>ME 374 - System Dynamics</td>
</tr>
<tr>
<td>VLPA/I&amp;S</td>
<td>VLPA/I&amp;S</td>
<td>ME Senior Elective</td>
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Quarter Total 16

<table>
<thead>
<tr>
<th>Senior - Autumn Quarter</th>
<th>Senior - Winter Quarter</th>
<th>Senior - Spring Quarter</th>
</tr>
</thead>
<tbody>
<tr>
<td>ME 331 - Intro to Heat Transfer</td>
<td>ME 356 - Machine Design Analysis</td>
<td>ME 495 - Mechanical Engr. Design</td>
</tr>
<tr>
<td>ME 395 - Intro to Mech. Design</td>
<td>ME Senior Elective</td>
<td>ME Senior Elective</td>
</tr>
<tr>
<td>ME Senior Elective</td>
<td>ME Senior Elective</td>
<td>ME Senior Elective</td>
</tr>
<tr>
<td>VLPA/I&amp;S</td>
<td>Free Elective</td>
<td>VLPA/I&amp;S</td>
</tr>
</tbody>
</table>

Quarter Total 15

**Bold face** courses are required for upper-division admission.

See ME Advising Guide online for list of senior electives.

For more information contact:

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Appointments: https://me.washington.edu/advising

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