Mechanical Engineering Graduation Requirements

www.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 or Math 324
(AMATH 351/352/353 may substitute for Math 307/308/309)

Sciences (25 Credits)

♦ Chem 142 (5cr) – General Chemistry with lab
♦ Chem 152 (5cr) – General Chemistry with lab
♦ Phys 121 (5cr) – Mechanics with lab [pr: Math 124]
♦ Phys 122 (5cr) – Electro/Oscillatory with lab [pr: Math 125]
Phys 123 (5cr) – Waves with lab [pr: Math 126]

Written & Oral Communications (12 Credits)

♦ English Comp (5cr) – English Composition
♦ HCDE 231 (3cr) – Intro to Technical Writing [pr: Engl. Comp]
HCDE 333 (4cr) – Adv. Tech Writing [pr: HCDE 231]
- or - department approved elective

Visual, Literary & Performing Arts/ Individuals & Society (VLPA/I&S) (24 Credits)

Minimum 10 credits in VLPA required.
Minimum 10 credits in I&S required.
Remaining 4 credits can be either VLPA or I&S.

Engineering Fundamentals (31 Credits)

♦ AA 210 (4cr) – Engineering Statics [pr: Math 126, Phys 121]
♦ ME 230 (4cr) – Kinematics & Dynamics [pr: AA 210]
AMATH 301(4cr) – Beg. Scientific Computing
ME 123 (4cr) - Intro to Visualization and CAD
MSE 170 (4cr) – Fund. of Material Science [pr: CHEM 152]
EE 215 (4cr) – Fund. of EE [pr: PHYS 122 & MATH 126]
IND E 315 (3cr) – Prob & Stats for Engrs [pr: MATH 307]
- or -
Math/Stat 390 (4cr) - Statistics

ME Core Courses (45 Credits)

ME 323 (5cr) – Engineering Thermodynamics
ME 331 (4cr) – Intro to Heat Transfer [pr: ME 333]
ME 333 (5cr) Intro to Fluid Mechanics [pr: ME 323, Math 307 or AMATH 351, AMATH 301]
ME 354 (5cr) – Behavior of Engr Material Lab [pr: MSE 170, CEE 220]
ME 355 (4cr) – Manufacturing Processes [pr: ME 354]
ME 356 (4cr) – Machine Design Analysis [pr: ME 354]
ME 373 (5cr) – Intro to System Dynamics [pr: EE 215, ME 230, MATH 307 or AMATH 351, Math308 or AMATH 352]
ME 374 (5cr) – Sys Dynamic Analysis/Design [pr: ME 373, AMATH 301]
ME 395 (4cr) – Intro to Mechanical Design [pr: ME 123, ME 323, IND E 315/MATH 390]
ME 495 (4cr) – Mech Engr Design [pr: ME 395]

Mechanical Option Courses (19 Credits)

See ME Advising Guide for a 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 courses plus the accompanying lab at the level of Chem 142, 152; Phys 121, 122, 123.
5. 5 credits of English Composition.
6. 15 credits must have been completed at UW.

Application Deadlines

Both early and upper division applications are due July 1st.

Last revised July 2010
# Mechanical Engineering Sample Curriculum

University of Washington  
www.me.washington.edu

**Freshman – Autumn Quarter**  
- Math 124 – Calculus I 5  
- Chem 142 – Chem & Lab I 5  
- Engl 131 – English Composition 5  

**Freshman – Winter Quarter**  
- Math 125 – Calculus II 5  
- Chem 152 – Chem & Lab II 5  
- VLP A/I & S 5  

**Freshman – Spring Quarter**  
- Math 126 – Calculus III 5  
- Phys 121 – Mechanics & Lab I 5  
- VLP A/I & S 5  

<table>
<thead>
<tr>
<th>Quarter Total</th>
<th>15</th>
</tr>
</thead>
</table>

**Sophomore – Autumn Quarter**  
- AA 210 – Statics 4  
- Phys 122 – Electro & Lab I 5  
- ME 123 – Intro to Visualiz. & CAD 4  
- Math 307 – Differential Equations 3  

**Sophomore – Winter Quarter**  
- CEE 220 – Mech. of Materials 4  
- Math 308 – Matrix Algebra 3  
- Phys 123 – Waves & Lab I 5  
- VLP A/I & S 4  

**Sophomore – Spring Quarter**  
- ME 230 – Kinematics/Dynamics 4  
- Math 324 – Adv. Multivariable Calc 3  
- AMATH 301– Scientific Computing 4  
- HCDE 231 – Technical Writing 3  

<table>
<thead>
<tr>
<th>Quarter Total</th>
<th>16</th>
</tr>
</thead>
</table>

**Junior – Autumn Quarter**  
- ME 323 – Thermodynamics 5  
- MSE 170 – Materials Science 4  
- EE 215 – Fund of EE 4  
- VLP A/I & S 3  

**Junior – Winter Quarter**  
- ME 333 – Intro to Fluid Mechanics 5  
- ME 354 – Behavior of Engr Materials 5  
- ME 373 – Intro to System Dynamics 5  
- VLP A/I & S 3  

**Junior – Spring Quarter**  
- ME 355 – Intro to Manufct. Processes 4  
- ME 374 – System Dynamics 5  
- IND E 315 – Prob & Stats for Engrs 3  
- ME Senior Elective 4  

<table>
<thead>
<tr>
<th>Quarter Total</th>
<th>16</th>
</tr>
</thead>
</table>

**Senior – Autumn Quarter**  
- ME 331 – Intro to Heat Transfer 4  
- ME 395 – Intro to Mech Design 4  
- ME Senior Elective 4  
- VLP A/I & S 3  

**Senior – Winter Quarter**  
- HCDE 333 – Adv. Tech Writing 4  
- ME 356 – Machine Design Analysis 4  
- ME Senior Elective 3  
- VLP A/I & S 4  

**Senior – Spring Quarter**  
- ME 495 – Mechanical Engr Design 4  
- ME Senior Elective 4  
- ME Senior Elective 4  
- VLP A/I & S 4  

<table>
<thead>
<tr>
<th>Quarter Total</th>
<th>15</th>
</tr>
</thead>
</table>

**Bold face** courses are required for upper-division admission  
See ME Advising Guide for list of senior electives

---

**For more information contact:**  
Engineering Advising  
Office: 301 Loew Hall Box 352180, Seattle, WA 98195-2180  
Phone: (206) 543-1770  
Email: engradv@uw.edu

-or-

Margo Segimoto  
Mechanical Engineering Advising  
Office: 143 ME Building Box 352600, Seattle, WA 98195-2600  
Phone: (206) 543-5090  
Email: meadvise@u.washington.edu

_Last Revised July 2010_