



# Mechanical Engineering Graduation Requirements

University of Washington  
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]
- ◆ CEE 220 (4cr) – Intro to Mech. Of Materials [pr: AA 210]
- ◆ 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 1<sup>st</sup>.



# Mechanical Engineering Sample Curriculum

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<b>Freshman – Autumn Quarter</b> ♦ Math 124 – Calculus I 5 ♦ Chem 142 – Chem & Lab I 5 ♦ Engl 131 – English Composition 5 Quarter Total 15	<b>Freshman – Winter Quarter</b> ♦ Math 125 – Calculus II 5 ♦ Chem 152 – Chem & Lab II 5 VLPA/I&S 5 Quarter Total 15	<b>Freshman – Spring Quarter</b> ♦ Math 126 – Calculus III 5 ♦ Phys 121 – Mechanics & Lab I 5 VLPA/I&S 5 Quarter Total 15
<b>Sophomore – Autumn Quarter</b> ♦ AA 210 – Statics 4 ♦ Phys 122 – Electro & Lab I 5 ME 123 – Intro to Visualizn. & CAD 4 Math 307 – Differential Equations 3 Quarter Total 16	<b>Sophomore – Winter Quarter</b> ♦ CEE 220 – Mech. of Materials 4 Math 308 – Matrix Algebra 3 Phys 123 – Waves & Lab I 5 VLPA/I&S 4 Quarter Total 16	<b>Sophomore – Spring Quarter</b> ♦ ME 230 – Kinematics/Dynamics 4 Math 324 – Adv. Multivariable Calc 3 AMATH 301– Scientific Computing 4 HCDE 231 – Technical Writing 3 Quarter Total 14
<b>Junior – Autumn Quarter</b> ME 323 – Thermodynamics 5 MSE 170 – Materials Science 4 EE 215 – Fund of EE 4 VLPA/I&S 3 Quarter Total 16	<b>Junior – Winter Quarter</b> ME 333 – Intro to Fluid Mechanics 5 ME 354 – Behavior of Engr Materials 5 ME 373 – Intro to System Dynamics 5 Quarter Total 15	<b>Junior – Spring Quarter</b> ME 355 – Intro to Manufct. Processes 4 ME 374 – System Dynamics 5 IND E 315 – Prob & Stats for Engrs 3 ME Senior Elective 4 Quarter Total 16
<b>Senior – Autumn Quarter</b> ME 331 – Intro to Heat Transfer 4 ME 395 – Intro to Mech Design 4 ME Senior Elective 4 VLPA/I&S 3 Quarter Total 15	<b>Senior – Winter Quarter</b> HCDE 333 – Adv. Tech Writing 4 ME 356 – Machine Design Analysis 4 ME Senior Elective 3 ME Senior Elective 4 Quarter Total 15	<b>Senior – Spring Quarter</b> ME 495 – Mechanical Engr Design 4 ME Senior Elective 4 VLPA/I&S 4 Quarter Total 12

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

### For more information contact:

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