# 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]
- 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.

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### Mechanical Engineering Sample Curriculum

[www.me.washington.edu](http://www.me.washington.edu)

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

**Quarter Total**: 15

#### Freshman – Winter Quarter
- Math 125 – Calculus II 5
- Chem 152 – Chem & Lab II 5
- VLPA/I&S 5

**Quarter Total**: 15

#### Freshman – Spring Quarter
- Math 126 – Calculus III 5
- Phys 121 – Mechanics & Lab I 5
- VLPA/I&S 5

**Quarter Total**: 15

**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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