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| ME | **Mechanical Engineering**  **Degree Requirements**  <https://me.washington.edu>  [meadvise@uw.edu](mailto:meadvise@uw.edu) | **ENGRUD Requirement Key:**  ⯁ **= Placement Requirements**;  **★** = *Pick* ***one*** *to satisfy placement requirement*  **Placement:** July 1 at the end of the first year |

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| **Engineering First-year Interest Group (E-FIG)**  ⯁ **ENGR 101 (1cr)**  GEN ST 199 (1cr)  **Mathematics (29-32cr)**  ⯁ **MATH 124, 125, 126 - Calc. w/ Analytic Geom. I-III (15cr)**  MATH 207 - Intro to Differential Equations (4cr)  [pr: MATH 125] OR AMATH 351 (3cr) [pr: MATH 125]  MATH 208 - Matrix Algebra with Applications (4cr)  OR AMATH 352 (3cr) [pr: MATH 126]  One course from the following: MATH 209 (4cr), MATH 224 (4cr), AMATH 353 (3cr)  One course from the following: IND E 315 (3cr), STAT 290 - AP Statistics (5cr), STAT 390 (4cr)  **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; PHYS 121]  **★ *PHYS 123 - Waves (5cr)***  [pr: MATH 126; PHYS 122]  **General Education Requirements (29-34cr)**  ***Written and Oral Communications:***  **⯁ English Composition (5cr)**  Writing (7cr) - met by coursework in the major  ***Areas of Inquiry:***  Arts & Humanities - A&H (10cr) - 4cr met by M E 123  Social Sciences - SSc (10cr)  Additional A&H or SSc (4cr)  ***Diversity*** - DIV (5cr) (may overlap with Areas of Inquiry or W)  **Engineering Fundamentals (28cr)**  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 126 and either MATH 207 or AMATH 351, either of which may be taken concurrently; PHYS 122]  **★ *M E 123 - Intro to Vis. & Comp-Aided Design (4cr) (A&H)***  [pr: MATH 125 or MATH 135] | **Engineering Fundamentals** **(cont’d)**  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]  [**Major Core Requirements**](https://myplan.uw.edu/course/#/courses?states=N4Igwg9grgTgzgUwMoIIYwMYAsQC4TAA6IAZhDALYAiqALqsbkSBqhQA5RyPGJ20AbBMQA0xAJZwUGWuIgA7FOmyMSqAYjEhJASXlxaMKDPJLMWVes3EAjlAQwAnkkPj5Acx4gA5AFkABACi3qLEACaojtx4zACMlhoIWgBMCdYgAMxpScQALNlaAKwFxABs2QC%2BWgbotIHyYQAq4hQI0bgA2gAMIgCcpV0AulpuGAJQYQgAcgoA8uwIiggycvqMhvYj8mMTCABKba4yCGHSsgrtGzna2%2BOTAAowDgg2cAd24k9h60bXo3cIRoAI1QZ1Wl1%2B1SwEAA7rN5AJHPcMMhluc1ng1IkobD4Yi9PcHHAFGCLpUcTCAEIwWGIEogLCoKRocwnH6bcKSMYQRAAQTCADdUNsTmYVJirAgKiARCAYew4HgCMQYW4wrCABIIcTuLC0RilUq9HoqtWw%2B488ToxjJQrJaUVIA) **(46cr)**  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) (W)  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)  One course from:   * M E 493 - Introduction to Capstone Design (3cr) (W) * M E 414/E E 414 Engineering Innovation in Health (3cr)   M E 494 - Capstone Design I (3cr)  M E 495 - Capstone Design II (3cr)  **Mechanical Engineering Option (19cr)**  Complete one option below. Contact department for list of approved courses.   1. Standard Option 2. Mechatronics Option 3. Biomechanics Option   **Free Electives (to reach 180 total credits) (~5cr)**  Additional coursework in any subject area not used elsewhere in degree.  **Total credits required for graduation: 180cr** |

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| Mechanical Engineering |  | **Questions? Contact ENGRUD Advising**  Email: engradv@uw.edu  Office: IEB 307  Phone: (206) 543-1770 |

This is a sample four-year plan for Mechanical Engineering to provide ENGRUDs a framework to create their individual academic plan.

Courses required to request placementfor ENGRUD students: **ENGR 101; MATH 124, 125, 126; CHEM 142; PHYS 121; English Composition; choose one: AMATH 301, CHEM 152, ME 123, MSE 170, PHYS 122, PHYS 123.**

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| **Autumn Quarter**  ⯁ **MATH 124 - Calc. w/ Analytic Geom. I**  ⯁ **CHEM 142 - General Chemistry**  ⯁ **E-FIG: ENGR 101 & GEN ST 199**  A&H / SSc | **cr**  5  5  2  3 | **Winter Quarter**  ⯁ **MATH 125 - Calc. w/ Analytic Geom. II**  **★ *CHEM 152 - General Chemistry***  ⯁ **English Composition** | **cr**  5  5  5 | **Spring Quarter**  ⯁ **MATH 126 - Calc. w/ Analytic Geom. III**  ⯁ **PHYS 121 - Mechanics**  A&H / SSc / DIV | **cr**  5  5  5 |
| Qtr. Total: | **15** | Qtr. Total: | **15** | Qtr. Total: | **15** |

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| **Autumn Quarter**  PHYS 122 - Electromagnetism  A A 210 - Engineering Statics  M E 123 - Intro to Visualization & CAD  MATH 207 - Intro to Differential Equations | **cr**  5  4  4  4 | **Winter Quarter**  PHYS 123 - Waves  MATH 208 - Matrix Algebra with Apps  M E 230 - Kinematics & Dynamics  Free Elective | **cr**  5  4  4  5 | **Spring Quarter**  CEE 220 - Mechanics of Materials  MATH 209 or Math 224  MSE 170 - Fundamentals of Material Sci  A&H / SSc | **cr**  4  4  4  3 |
| Qtr. Total: | **17** | Qtr. Total: | **18** | Qtr. Total: | **15** |

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| **Autumn Quarter**  M E 323 - Engineering Thermodynamics  AMATH 301 - Beg Sci Computing  E E 215 - Fund of Electrical Engineering  A&H / SSc | **cr**  5  4  4  3 | **Winter Quarter**  M E 333 - Intro to Fluid Mechanics  M E 354 - Mechanics of Materials Lab (W)  M E 373 - Intro to System Dynamics | **cr**  5  5  5 | **Spring Quarter**  M E 355 - Intro to Manufacturing Proc.  M E 374 - Sys Dynamic Analysis & Design  IND E 315 - Prob & Stats for Engineers  M E Option Elective | **cr**  4  5  3  4 |
| Qtr. Total: | **16** | Qtr. Total: | **15** | Qtr. Total: | **16** |

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| **Autumn Quarter**  M E 331 - Intro to Heat Transfer  M E 493 - Intro to Capstone Design (W)  M E Option Elective  A&H / SSc | **cr**  4  3  3  3-5 | **Winter Quarter**  M E 356 - Machine Design Analysis  M E 494 - Capstone Design I  M E Option Elective  M E Option Elective | **cr**  4  3  4  4 | **Spring Quarter**  M E 495 - Capstone Design II  M E Option Elective  A&H / SSc | **cr**  3  4  3-5 |
| Qtr. Total: | **13-15** | Qtr. Total: | **15** | Qtr. Total: | **10-13** |

**⯁ = Placement Requirement**

***★ =*** *Pick* ***one*** *to satisfy placement requirements*