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

|  |  |
| --- | --- |
| **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 123Social 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** |

|  |  |  |
| --- | --- | --- |
| Mechanical Engineering |  | **Questions? Contact ENGRUD Advising**Email: engradv@uw.eduOffice: IEB 307Phone: (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.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Autumn Quarter**⯁ **MATH 124 - Calc. w/ Analytic Geom. I**⯁ **CHEM 142 - General Chemistry**⯁ **E-FIG: ENGR 101 & GEN ST 199** A&H / SSc  | **cr**5523 | **Winter Quarter**⯁ **MATH 125 - Calc. w/ Analytic Geom. II****★ *CHEM 152 - General Chemistry***⯁ **English Composition** | **cr**555 | **Spring Quarter**⯁ **MATH 126 - Calc. w/ Analytic Geom. III**⯁ **PHYS 121 - Mechanics** A&H / SSc / DIV  | **cr**555 |
| Qtr. Total: | **15** | Qtr. Total: | **15** | Qtr. Total: | **15** |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Autumn Quarter**PHYS 122 - ElectromagnetismA A 210 - Engineering StaticsM E 123 - Intro to Visualization & CADMATH 207 - Intro to Differential Equations  | **cr**5444 | **Winter Quarter**PHYS 123 - WavesMATH 208 - Matrix Algebra with AppsM E 230 - Kinematics & DynamicsFree Elective  | **cr**5445 | **Spring Quarter**CEE 220 - Mechanics of MaterialsMATH 209 or Math 224MSE 170 - Fundamentals of Material SciA&H / SSc  | **cr**4443 |
| Qtr. Total: | **17** | Qtr. Total: | **18** | Qtr. Total: | **15** |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Autumn Quarter**M E 323 - Engineering ThermodynamicsAMATH 301 - Beg Sci ComputingE E 215 - Fund of Electrical EngineeringA&H / SSc | **cr**5443 | **Winter Quarter**M E 333 - Intro to Fluid MechanicsM E 354 - Mechanics of Materials Lab (W)M E 373 - Intro to System Dynamics | **cr**555 | **Spring Quarter**M E 355 - Intro to Manufacturing Proc.M E 374 - Sys Dynamic Analysis & DesignIND E 315 - Prob & Stats for EngineersM E Option Elective | **cr**4534 |
| Qtr. Total: | **16** | Qtr. Total: | **15** | Qtr. Total: | **16** |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Autumn Quarter**M E 331 - Intro to Heat Transfer M E 493 - Intro to Capstone Design (W) M E Option ElectiveA&H / SSc  | **cr**4333-5 | **Winter Quarter**M E 356 - Machine Design AnalysisM E 494 - Capstone Design I M E Option ElectiveM E Option Elective  | **cr**4344 | **Spring Quarter**M E 495 - Capstone Design IIM E Option ElectiveA&H / SSc | **cr**343-5 |
| Qtr. Total:  | **13-15** | Qtr. Total: | **15** | Qtr. Total: | **10-13** |

**⯁ = Placement Requirement**

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