

| COURSE | NAME (PREREQS (";" DENOTES "AND")) | TERM | CR | COURSE | NAME (PREREQS (";" DENOTES "AND")) | TERM | CR |
|----------------------|---|----------|----|------------------------|---|----------|----|
| 1st Year Fall | | | | 1st Year Spring | | | |
| BIOM 100 | Overview of Biomedical Engineering | F | 1 | LIFE 102 | Attributes of Living Systems | F, S, SS | 4 |
| CHEM 111 | General Chemistry I (MATH 118 or 127 or 141 or 155 or 160 or 161 or 229 or 261) | F, S, SS | 4 | MATH 161 | Calc for Physical Scientists II ((MATH 124 or 127); (MATH 159 or 160)) | F, S, SS | 4 |
| CHEM 112 | General Chemistry Lab I (CHEM 111/conc or CHEM 117/conc) | F, S, SS | 1 | MECH 105 | Mechanical Engineering Problem Solving (MECH 103; PH 141/conc; (MATH 159/conc or 160/conc)) | F, S | 3 |
| MATH 160 | Calculus for Physical Scientists I (All require a B or better: MATH 124; (MATH 126 or 127)) | F, S, SS | 4 | PH 141 | Physics for Scientists and Engineers I (MATH 159/conc or MATH 160/conc or (MATH 126/conc; MATH 155/conc) or (MATH 127/conc; MATH 155/conc)) | F, S, SS | 5 |
| HONR 192 | Honors First Year Seminar | F, S | 4 | | | | |
| MECH 103 | Introduction to Mechanical Engineering | F, S | 3 | | | | |
| Total | | | | Total | | | |
| | | | | 17 | | | |
| | | | | 16 | | | |

| 2nd Year Fall | | | | 2nd Year Spring | | | |
|----------------------|---|----------|---|------------------------|--|----------|---|
| PH 142 | Physics for Scientists and Engineers II (PH 141; (MATH 161/conc or 255/conc or 271/conc)) | F, S, SS | 5 | MECH 200A | Intro to Manufacturing Processes: Lecture (MECH 105) | F, S, SS | 2 |
| CO 150 | College Composition (CO 130 or placement by ACT or SAT or DSP Survey or Challenge Exam) | F, S, SS | 3 | MECH 200B | Intro to Manufacturing Processes: Lab (MECH 200A/conc) | F, S, SS | 1 |
| BIOM 200 | Fundamentals of Biomedical Engineering (BIOM 100/conc; LIFE 102; MATH 160) | F | 2 | MECH 231 | Engineering Experimentation (PH 142; MECH 105) | F, S | 3 |
| MATH 261 | Calculus for Physical Scientists III (MATH 161) | F, S, SS | 4 | CIVE 260 | Engineering Mechanics: Statics (PH 141; (MATH 159 or 160)) | F, S, SS | 3 |
| MECH 201 | Engineering Design I (MECH 105) | F, S | 2 | CHEM 113 | General Chemistry II ((CHEM 107 or 111 or 117); (MATH 124 or 127 or 141/conc or 155/conc or 160/conc or 161/conc or 229/conc or 261/conc)) | F, S, SS | 3 |
| | | | | MATH 340 | Intro to ordinary Differential Equations (MATH 255 or 261) | F, S, SS | 4 |
| Total | | | | Total | | | |
| | | | | 16 | | | |
| | | | | 16 | | | |

| 3rd Year Fall | | | | 3rd Year Spring | | | |
|----------------------|---|----------|---|------------------------|---|----------|---|
| STAT 315 | Statistics for Engineers and Scientists (MATH 155 or 159 or 160) | F, S, SS | 3 | BIOM 300 | Problem-Based Learning BME Lab (BIOM 101 or BIOM 200 or (BIOM 100; CBE 205; MECH 262); (MATH 340 or 345)) | S | 4 |
| MECH 202 | Engineering Design II (MECH 201; MECH 200A/conc; MECH 200B/conc) | F, S | 3 | BMS 300 | Principles of Human Physiology ((BZ 101 or 110 or LIFE 102); (CHEM 103 or 107 or 111)) | F, S, SS | 4 |
| MECH 337 | Thermodynamics (MATH 261; PH 141) | F, S | 4 | CIVE 360 | Mechanics of Solids (CIVE 260) | F, S, SS | 3 |
| MECH 342 | Mechanics & Thermodynamics of Flow Processes (MATH 340/conc; PH 141; MECH 337/conc); HONR Section also requires reg MECH 495) | F, S | 3 | HONR 292 | Honors Seminar (HONR 192) *Check with Honors advisor for A/B/C selection | F, S | 3 |
| CIVE 261 | Engineering Mechanics: Dynamics (CIVE 260) | F, S, SS | 3 | AUCC | | F, S, SS | 3 |
| Total | | | | Total | | | |
| | | | | 16 | | | |
| | | | | 17 | | | |

| 4th Year Fall | | | | 4th Year Spring | | | |
|----------------------|--|----------|---|------------------------|--|----------|---|
| MECH 324 | Dynamics of Machines (CIVE 261; MATH 340/conc) | F, S | 4 | CHEM 245 | Fundamentals of organic Chemistry (CHEM 107 or 113) | F, S, SS | 4 |
| MECH 331A | Intro to Engineering Materials: Lecture (CHEM 111; CHEM 112; MECH 231) | F, S | 3 | MECH 301A | Engineering Design III: Finite Element Analysis (CIVE 360; MECH 202/conc; MECH 342) | F, S | 1 |
| MECH 331B | Intro to Engineering Materials: Lab (CHEM 111; CHEM 112; MECH 231; MECH 331A/conc) | F, S | 1 | MECH 301B | Engineering Design III: Computational Fluid Dynamics (CIVE 360; MECH 202/conc; MECH 301A/conc; MECH 342) | F, S | 1 |
| BIOM 441 | Biomechanics and Biomaterials (MECH 342; (BMS 300/conc; CIVE 360; MECH 324/conc); (MECH 331/conc or MECH 331B/conc; MECH 331A/conc)) | F | 3 | MECH 307 | Mechatronics and Measurement Systems (CIVE 261; ECE 204; MATH 340; MECH 231) | F, S | 4 |
| ECE 204 | Intro to Electrical Engineering (MATH 161; PH 142) | F, S | 3 | MECH 344 | Heat and Mass Transfer (MECH 342) | F, S | 3 |
| BME BE | BME Broad Elective | F, S, SS | 3 | MECH 338 | Thermal/Fluid Sciences Lab (MECH 337; MECH 342; MECH 344/conc) | F, S | 1 |
| | | | | AUCC | | F, S, SS | 3 |
| Total | | | | Total | | | |
| | | | | 17 | | | |
| | | | | 17 | | | |

| 5th Year Fall | | | | 5th Year Spring | | | |
|----------------------|--|----------|---|------------------------|--|----------|---|
| BIOM 486A | Biomedical Design Practicum: Capstone Design I (BIOM 300; ((BIOM 421; CBE 320; CBE 442) or (BIOM 431; ECE 311; ECE 332; ECE 342) or (BIOM 441; MECH 301A; MECH 301B/conc; MECH 307)) | F | 4 | BIOM 486B | Biomedical Design Practicum: Capstone Design II (BIOM 486A; (PH 353 or (CBE 451 or ECE 312) or (MECH 325; MECH 344)) | S | 4 |
| MECH 325 | Machine Design (CIVE 360) | F, S | 3 | HONR 499 | Senior Honors Thesis (HONR 399) | F, S, SS | 3 |
| HONR 399 | Pre-Thesis - Honors | F, S | 1 | BME-TE | BME Technical Elective _____ | F, S, SS | 3 |
| Advanced Writing | CHEM 301 or CO300 or CO301B or JTC 300 or LB 300 (CO150 or HONR193, check course catalog for all prereqs) | F, S, SS | 3 | ME-TE | MECH Technical Elective _____ | F, S | 3 |
| BME-TE | BME Technical Elective _____ | F, S, SS | 3 | AUCC | | F, S, SS | 3 |
| AUCC | | F, S, SS | 3 | | | | |
| Total | | | | Total | | | |
| | | | | 17 | | | |
| | | | | 16 | | | |

Please note that curricula can change; be sure to check DARS/Degree Audit and with your advisors regularly to ensure you are on track.

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| <p>Track 2 Honors Program Required Courses in BLUE:</p> <p>* HONR 192, 292 A, B, or C, 399, 499</p> <p>* 5 honors courses in major (15 credits) **only 3cr 200-300 level</p> <p>Click here to find list of honors course offerings.</p> <p>Key: /conc = may be taken concurrently Term: F = Fall, S = Spring, SS = Summer Session</p> <p>Grey indicates Biomedical Engineering courses</p> <p>Light green indicates labs</p> <p>Red indicates exceptionally time-consuming/difficult courses</p> |
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| AUCCs- Additional All University Core Courses (click here for list) |
| 3 credits - 3B Arts and Humanities (A&H): |
| 3 credits - 3C Social/Behavioral Science: |
| 3 credits - 3D Historical Perspective: |
| 3 credits - EITHER 3B OR C1 Diversity Equity & Inclusion: |
| **HONR 292B counts as 3B and HONR 292C counts as 1C |