19/20 ME Undergraduate Program of Study

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Fall Quarter** | | Winter Quarter | | **Spring Quarter** | |
| Freshman (50 units) | Math 3A (4) | Calculus w/Applications | Math 3B (4) | Calculus w/Applications | Math 4A (4) | Diff. Equations & Lin. Alg. |
| Chem 1A (3) | General Chemistry | Chem 1B (3) | General Chemistry | **ME 10 (4)** | **Engineering Graphics** |
| Chem 1AL (2) | Chemistry Lab | Chem 1BL (2) | Chemistry Lab | Phys 2 (4) | Basic Physics |
| 1ME 12S (1) | Intro to Machine Shop | Phys 1 (4) | Basic Physics | ENGR 3 (3) | Intro to Programming |
| Writ 1E or 2E (4) | Acad. Writing for Engrs. | Writ 2E or 50E (4) | Writing & Res. for Engrs. | Writ 50E or G.E. elective (4) | Writing & Res. for Engrs. |
| \*ME 11 (1) | Introductory Concepts in Mech. Engineering |  |  |  |  |
| Total Units | 14/15 |  | 17 |  | 19 |  |
| Sophomore (**47** units) | Math 4B (4) | Diff. Equations & Lin. Alg | Math 6A (4) | Vector Calc w/App. | Math 6B (4) | Vector Calc. w/App. |
| ME 14 (4) | Statics | ME 6 (4)  *Rm. 2218* | **Basic Electrical and Electronic Circuits** | ME 16 (4) | Engineering Mechanics: Dynamics |
| Phys 3 (3) | Basic Physics | ME 15 (4) | Strength of Materials | ME 17 (3) | Mathematics of Engineering |
| Phys 3L (1) | Physics Lab | Phys 4 (3) | Basic Physics | G.E.Elective (4) |  |
| G.E.Elective (4) |  | Phys 4L (1) | Physics Lab | \* ME 95/97/99 (1-4) | LD Design/Research Projects |
| Total Units | 16 |  | 16 |  | 15 |  |
| Junior (**42** units) | ME 104 (4)  *Rm. 2218* | **Sensors, Actuators & Computer Interfacing** | Matrl 101 (3) | Intro to Structure and Properties of Materials | ME 105 (4)  *Rm. 2218* | Mech. Engineering Laboratory |
| ME 151A (4) | Thermosciences I | ME 151B (4) | Thermosciences II | ME 151C (3) | Thermosciences III |
| ME 152A (4) | Fluid Mechanics | ME 152B (3) | Fluid Mechanics | ME 153 (3) | Intro to ME Design |
| G.E. or free elective (4) |  | ME 163 (3) | Engineering Mechanics: Vibrations | ME 155A (3) | Control System Design |
|  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Total Units | **16** |  | **13** |  | 13 |  |
| Senior (45 units) | 2ME 154 or ME 157 or ME 167 (3) | Design and Analysis of Structures | ME 156B (3) | Mechanical Engineering Design II | ME 189C (3) | Capstone ME Design Project |
| ME 156A (3) | Mechanical Engineering Design I | ME 189B (3) | Capstone ME Design Project | Dept electives (6) |  |
| ME 189A (3) | Capstone ME Design Project | Dept electives (6) |  | G.E. or free elective (4) |  |
| Dept. Electives (3) |  | G.E. or free elective (4) |  | \*ME 193/197/199 (1-4) | UD Design/Research Projects |
| G.E. or free elective (4) |  |  |  |  |  |
| **16** | | **16** | | **13** | |
|  | Courses in **Bold** are Lab courses  \*Shaded courses are optional but recommended. ME 11 (offered in Fall only) ME 95/97/99 & 193/197/199 are variable units.  1 ME 12S offered Fall, Winter, and Spring must be completed by the end of the sophomore year  2If using ME 157 or ME 167 to satisfy the ME 154 requirement, students may not count ME 157 or ME 167 as an engineering elective. | | | | | |