|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Freshman Year** | | | | |
| **Fall Semester** | Credits |  | **Winter Semester** | Credits |
| BE 1500 : Intro to Programming and Computation for Engineers | 3 |  | BE 1300: Basic Engineering II: Materials Science for Engineering Applications | 3 |
| BE 1200: Basic Engineering I Design in Engineering | 3 |  | BE 1310: Material Science for Engineering Lab | 1 |
| \*CHM 1225: General Chemistry I | 3 |  | \*BIO 1510 Basic Life Mechanisms (NSI) | 4 |
| \*CHM 1230: General Chemistry I Laboratory | 1 |  | MAT 2020: Calculus II | 4 |
| MAT 2010: Calculus I (QE) | 4 |  | \*PHY 2170: General Physics I (NSI) | 4 |
| Wayne Experience | 1 |  | \*PHY 2171: General Physics I Lab | 1 |
| Total | **15** |  | Total | **17** |
| **Spring/Summer Semester** | | | | |
| \*CHM 1240: Organic Chemistry I | 4 |  | ENG 1020: Introductory College Writing (BC) | 3 |
| \*CHM 1250: Organic Chemistry I Lab | 1 |  | MAT 2030: Calculus III | 4 |
| Total | | | | **12** |
| **Sophomore Year** | | | | |
| **Fall Semester** |  |  | **Winter Semester** |  |
| BME 2910: Biomedical Engineering Design Lab III | 1 |  | \*BME 2050: Introduction to Anatomy and Physiology for Engineers | 4 |
| BE 2100: Probability and Statistics | 3 |  | BME 2920: Biomedical Engineering Design Lab IV | 1 |
| \*CHM 2220: Organic Chemistry II | 4 |  | MAT 2150: Differential Equations and Matrix Algebra | 4 |
| \*CHM 2230: Organic Chemistry Lab | 1 |  | ME 2420: Elementary Mechanics of Materials | 3 |
| ME 2410: Statics | 3 |  | \*PHY 2180: General Physics II | 4 |
|  |  |  | \*PHY 2181: General Physics Lab | 1 |
| Total | **12** |  | Total | **17** |
| **Spring/Summer Semester** | | | | |
| \*PSY 1010 or PSY 1020: Introductory Psychology | 3-4 |  | \*SOC 1010: Understanding Human Society(SI) | 3 |
| \*CHM 5600: Biochemistry | 3 |  |  |  |
| Total | | | | **9-10** |
| **Junior Year** | | | | |
| **Fall Semester** |  |  | **Winter Semester** |  |
| BME 3470: Biomedical Signals and Systems | 3 |  | BME 3920: Biomedical Engineering Design Lab VI | 2 |
| BME 3910: Biomedical Engineering Design Lab V | 1 |  | \*BME 4010: Engineering Physiology Laboratory | 1 |
| ECE 3300: Introduction to Electric Circuits | 4 |  | BME 4X10: First course in Introduction to Concentration | 3 |
| ENG 3050: Technical Communication I: Reports (IC) | 3 |  | \*BME 5010: Quantitative Physiology | 4 |
| General Education | 3 |  | CHE 3100: Transport Phenomena I | 3 |
|  |  |  | ENG 3060: Technical Communication II: Presentations (OC) | 3 |
| Total | **14** |  | Total | **16** |
| **Spring/Summer Semester** | | | | |
| \*CHM 2280: \*Analytical Chemistry | 3 |  | \*CHM 2290: \*Analytical Chemistry Lab | 2 |
| Total | | | | **5** |
| **Senior Year** | | | | |
| **Fall Semester** |  |  | **Winter Semester** |  |
| BME 4910: Biomedical Engineering Capstone Design I | 3 |  | BME 4920: Capstone Design II | 3 |
| Concentration Elective | 4 |  | BME 4X10: Second course in Introduction to Concentration | 3 |
| Concentration Elective | 4 |  | Concentration Elective | 4 |
| General Education | 3 |  | General Education | 6 |
| Total | **14** |  | Total | **16** |
|  |  |  | **Total Program Credits:** | **148** |

****