BSE – Bioprocess Engineering (BIOE) Program – Entering Class of 2012

Note: This chart is for planning purposes only. It is the student’s responsibility to ensure that requirements as detailed in the Undergraduate Catalog are met.

**FRESHMAN**

- **ENGR 1012 (2)** Engineering Graphics
- **ENGR 1000 (1)** Introduction to Engineering
- **ENGR 1016 (2)** Intro to Eng Design
- **MATH 2151 (3)** Calculus I
- **PHYS 2350 (4)** University Physics I
- **CHEM 1150/1151 (4)** General Chemistry
- **ENGL 1100 (3)** Composition
- **ENGL 1200 (3)** Composition
- **MATH 2152 (3)** Calculus II
- **MATH 1083 or higher**
- **C: MATH 1083 or higher**

**SOPHOMORE**

- **ENGR 2022 (3)** Statics
- **ENGR 2000 (1)** Engineering Design/PM I
- **ENGR 2050 (3)** Computer Applications in Engineering
- **CHEM 2650/2651 (5)** Organic Chemistry
- **ENGR 2514 (4)** Circuit Analysis
- **ENGR 2050 (3)** Engineering Economics
- **PHYS 2350 (4)** University Physics I
- **PHYS 2360 (4)** University Physics II
- **MATH 2153 (3)** Calculus III
- **MATH 3307 (3)** Engineering Statistics
- **CHEM 2650/2651 (5)** General Chemistry
- **C: MATH 2154, PHYS 2360**
- **MATH 2154 or higher**

**JUNIOR**

- **ENGR 3024 (3)** Mechanics of Materials
- **ENGR 3800 (3)** Quality Control for Engineers
- **ENGR 2450 (3)** Dynamics
- **ENGR 2514 (4)** Circuit Analysis
- **ENGR 3420 (2)** Engineering Economics
- **MATH 2154 or higher**
- **C: MATH 2154, PHYS 2360**
- **MATH 3307 (3)** Engineering Statistics
- **ENGR 2514 (4)** Circuit Analysis
- **ENGR 3420 (2)** Engineering Economics
- **MATH 2153 (3)** Calculus II
- **MATH 3307 (3)** Engineering Statistics

**SENIOR**

- **ENGR 3000 (2)** Senior Capstone Design I
- **ENGR 4010 (2)** Senior Capstone Design II
- **ENGR 3050 (3)** Sensors, Measurements And Controls
- **BIOE 4006 (2)** Bioprocess Validation
- **ENGR 4010 (4)** Bioprocess Separation Engineering
- **BIOE 4006 (2)** Bioprocess Validation
- **ECON 2113 (3)** Microeconomics
- **PHIL 2274 or 2275 (3)** Ethics
- **SOCIAL SCIENCES ELECTIVE (3)**
- **HUMANITIES/FINE ARTS ELECTIVE (3)**

**credits**

- **16/15/31**
- **17/48**
- **18/66**
- **16/82**
- **16/98**
- **16/114**
- **14/128**