BSE – Bioprocess Engineering (BIOE) Concentration – 2017

**FRESHMAN**

- **Fall:**
  - ENGR 1012 (2) Engineering Graphics
  - ENGR 1000 (1) Intro to Engineering
  - ENGR 1016 (2) Introduction to Engineering Design

- **Spring:**
  - ENGR 2050 (3) Computer Applications in Engineering
  - ENGR 2022 (3) Statics
  - ENGR 2450 (3) Dynamics

**SPHOMORE**

- **Fall:**
  - MATH 2171 (4) Calculus I
  - ENGR 2070 (3) Materials and Processes
  - CHEM 1160/1161 (4) General Chemistry II
  - ENGR 3800 (3) Quality Control for Engineers

- **Spring:**
  - ENGR 3420 (2) Engineering Economics
  - ENGR 3050 (3) Sensors Measurement and Controls
  - ENGL 2201 (3) Writing about the Disciplines
  - BIOE 3013 (3) Microbiology For Engineers

**JUNIOR**

- **Fall:**
  - MATH 2152 (3) Linear Algebra & Diff. Eqns.
  - CHEM 2750/2753 (4) Organic Chemistry I
  - ENGR 3250 (3) Bioprocess Engineering Systems

- **Spring:**
  - MATH 2154 (4) Circuit Analysis
  - ENGR 2022* ENGR 2070
  - BIO 4010 (2) Bioprocess Plant Design, Sim. & Analysis

**SENIOR**

- **Fall:**
  - ENGR 3000 (2) Engineering Design/PM II
  - ENGR 3307 (3) Engineering Statistics
  - BIOE 4006 (2) Bioprocess Engr. Validation And Quality

- **Spring:**
  - ENGR 4020 (2) Capstone Design II
  - BIOE 3250 (3) Bioprocess Engineering Systems

**Math/Science: 33 hours**

- **Fall:**
  - MATH 2152 (3) Calculus II
  - ENGR 2022* ENGR 2070
  - PHYS 2360 (4) University Physics II
  - CHEM 1150*1151

- **Spring:**
  - MATH 2154 (4) Circuit Analysis
  - ENGR 2022* ENGR 2070
  - BIOE 3250 (3) Bioprocess Engineering Systems

**General: 30 hours**

- **Fall:**
  - ENGL 1100 (3) Composition
  - ENGL 2201 (3) Writing about the Disciplines
  - PHYS 2350 (4) University Physics I

- **Spring:**
  - MATH 2152 or MATH 2171
  - ENGR 2022* ENGR 2070
  - PHYS 2350 (4) University Physics I

**Credit hours per Semester:**

- Fall: 15/32
- Spring: 17/49
- Cumulative Credit hours:
  - Fall: 18/67
  - Spring: 16/83

**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.

**Diversity:** At least one elective course must be designated as GD (Global Diversity) and at least one elective course must be designated as DD (Domestic Diversity).

**Humanities/Fine Arts:** Must complete at least one course in the humanities and one course in fine arts.

**Social Sciences:** Must complete courses in at least two different areas.

**Revision Date:** May 23, 2017

**Humanities/Fine Arts: Must complete at least one course in the humanities and one course in fine arts.**