

Chemical Engineering (B.S.)

The Bachelor of Science in Chemical Engineering (BSChE) degree program is accredited by the Engineering Accreditation Commission of ABET. Students seeking the (BSChE) degree must complete a minimum of 120 credits. This includes 62 credits in Math Sciences, Humanities, and Social Sciences and 52 core Engineering credits. Chemical Engineering primarily deals with the many aspects of processes in which matter and energy undergo change. It is based on the sciences of chemistry, physics, and mathematics and the principles of economics and environmental protection.

Freshman Year First Semester

| Item # | Title | Credits |
|--------------------------|--|-----------|
| EGPP 101 | Intro-Engineering (Chemical) | 2 |
| | English Writing Course | 3 |
| MATH 156 | Calculus I | 4 |
| CHEM 003 | Gen Chemistry I | 4 |
| CHEG 800 | Chemical Engineering Seminar | 0 |
| CHEM 005 | Gen Chem Lab I | 1 |
| | Elective - Humanities/Social Sciences/African American Studies | 3 |
| Sub-Total Credits | | 17 |

Freshman Year Second Semester

| Item # | Title | Credits |
|--------------------------|--|-----------|
| CHEG 102 | Intro to Engineering Design | 3 |
| | English Writing Course | 3 |
| MATH 157 | Calculus II | 4 |
| CHEM 004 | Gen Chemistry II | 4 |
| | Elective - Humanities/Social Sciences/African American Studies | 3 |
| Sub-Total Credits | | 17 |

Sophomore Year First Semester

| Item # | Title | Credits |
|--------------------------|--------------------------------|-----------|
| CHEG 201 | Chem Engineering Materials Bal | 3 |
| CSCI 165 | Scientific Computing for Eng | 3 |
| MATH 158 | Calculus III | 4 |
| CHEM 141 | Organic Chemistry I (Lecture) | 3 |
| PHYS 013 | Phys for Sci & Engr Lec I | 3 |
| PHYS 023 | Phys for Sci & Engr Lab I | 1 |
| Sub-Total Credits | | 17 |

Sophomore Year Second Semester

| Item # | Title | Credits |
|--------------------------|----------------------------|-----------|
| MATH 159 | Differential Equations | 4 |
| CHEG 202 | Chem Eng Energy Balances | 3 |
| CHEM 142 | Organic Chemistry II | 3 |
| CHEM 145 | Organic Chem Lab | 3 |
| PHYS 014 | Phys for Sci & Engr Lec II | 3 |
| Sub-Total Credits | | 16 |

Junior Year First Semester

| Item # | Title | Credits |
|--------------------------|----------------------------------|-----------|
| CHEG 303 | Chem. Engineering Thermodynamics | 3 |
| CHEG 301 | Fluid Mechanics | 3 |
| CHEM 171 | Physical Chemistry I | 3 |
| CHEM 173 | Physical Chem Lab I | 2 |
| EECE 310 | Principles of Electronics | 2 |
| | Health Ed. Elective | 1 |
| Sub-Total Credits | | 14 |

Junior Year Second Semester

| Item # | Title | Credits |
|--------------------------|--|-----------|
| CHEG 302 | Heat Transfer | 3 |
| CHEG 306 | Chemical Engineering Analysis | 3 |
| CHEM 172 | Physical Chemistry II | 3 |
| | Elective - Humanities/Social Sciences/African American Studies | 3 |
| | Technical Elective | 3 |
| Sub-Total Credits | | 15 |

Senior Year First Semester

| Item # | Title | Credits |
|--------------------------|-------------------------------|-----------|
| CHEG 401 | Separation Processes | 3 |
| CHEG 403 | Chemical Engineering Kinetics | 3 |
| CHEG 413 | Chemical Engineering Lab | 3 |
| CHEG 407 | Process Design I | 3 |
| Sub-Total Credits | | 12 |

Senior Year Second Semester

| Item # | Title | Credits |
|----------|--------------------------|------------|
| CHEG 402 | Process Control | 3 |
| CHEG 414 | Process Design II | 3 |
| | Ch. E. Elective | 3 |
| | Technical Elective | 3 |
| | Sub-Total Credits | 12 |
| | Total credits: | 120 |

Category Descriptions

English Writing Course

ENGW 101, 102, or 104 First Semester

ENGW 103 or 105 Second Semester

Elective - Humanities/Social Sciences/African American Studies

Please consult with your academic advisor.

Health Ed. Elective

Courses under HHPL and PHAS

Technical Elective

Please consult with your academic advisor.

Physics Majors :(PHYS, CHEM, BIOL, CSCI, MATH, Engineering)

Ch. E. Elective

Please consult with your academic advisor.