Chemical Engineering, B.S.

Plan Name Chemical Engineering, B.S.
Assigned To Tommy Trojan
USC ID
Created By Mork Family Department
Primary
Total Units 134.00

Personal Program Plan Terms

Fall 2024

16 Units
- CHEM-105A General Chemistry (4.0 Units)
- GE-A The Arts (4.0 Units)
- MATH-125 Calculus I (4.0 Units)
- WRIT-150 Writing and Critical Reasoning--Thematic Approaches (4.0 Units)

Spring 2025

16 Units
- MATH-126 or MATH-129 - Calculus II (4.0 Units)
- CHE-120 Introduction to Chemical Engineering (4.0 Units)
- CHEM-105B General Chemistry (4.0 Units)
- GESM-120 Seminar in Humanistic Inquiry (4.0 Units)*
*Students may select a GESM course in GE A,B,C, or D

Fall 2025

16 Units
- MATH-226 or MATH-229 - Calculus III (4.0 Units)
- CHE-305 Numerical and Statistical Analysis for Chemical Engineers (4.0 Units)
- CHE-330 Chemical Engineering Thermodynamics (4.0 Units)
- PHYS-151 Fundamentals of Physics I: Mechanics and Thermodynamics (4.0 Units)

Spring 2026

18 Units
- CHE-350 Introduction to Separation Processes (4.0 Units)
- CHE-444A Chemical Engineering Laboratory (2.0 Units)
- CHEM-322A Organic Chemistry (4.0 Units)
- GE-C Social Analysis (4.0 Units)
Fall 2026

18 Units
- CHE Upper-Division Elective #1 (Required) (4.0 Units)
- CHE-443 Chemical Engineering Fluid Mechanics (4.0 Units)
- CHE-444B Chemical Engineering Laboratory (2.0 Units)
- CHEM-430 Physical Chemistry: Thermodynamics and Kinetics (4.0 Units)
- PHYS-152 Fundamentals of Physics II: Electricity and Magnetism (4.0 Units)

Spring 2027

18 Units
- CHE Upper-Division Elective #2 (Required) (4.0 Units)
- CHE-442 Chemical Reactor Design (4.0 Units)
- CHE-444C Chemical Engineering Laboratory (2.0 Units)
- CHE-447 Heat and Mass Transfer in Chemical Engineering Processes (4.0 Units)
- GE-C & GE-H Social Analysis and Traditions and Historical Foundations (p) (4.0 Units)

Fall 2027

16 Units
- CHE Upper-Division Elective #3 (Required) (4.0 Units)
- CHE-460 Chemical Process Dynamics and Control (4.0 Units)
- CHE-485 Computer-Aided Chemical Process Design (4.0 Units)
- WRIT-340 Advanced Writing (4.0 Units)

Spring 2028

16 Units
- CHE Upper-Division Elective #4 (Required) (4.0 Units)
- CHE-480 Chemical Process and Plant Design (4.0 Units)
- GE-B & GE-G Humanistic Inquiry and Equity in a Diverse World (w) (4.0 Units)
- GE-D Life Sciences (4.0 Units)

CHE Upper Division Elective Requirements

1) **Chemistry Technical Elective** - Choose one from the following:
   a) CHEM-300 Analytical Chemistry (4.0 units)
   b) CHEM-322B Organic Chemistry B (4.0 units)
   c) CHEM-431 Physical Chemistry: Quantum Mechanics (4.0 units)
2) **CHE Technical Elective** - Complete one upper-division CHE elective between **CHE 300 through CHE 499**
3) **ENGR Elective** - Complete one approved upper-division engineering elective, in consultation with your advisor
4) **STEM Elective** - Complete one approved upper-division elective in **Math, Science, or Engineering, in consultation with your advisor**