

# Chemical (Environmental) Engr.

| FIRST YEAR |                   | SECOND YEAR       |            | THIRD YEAR                    |                | FOURTH YEAR       |                   |
|------------|-------------------|-------------------|------------|-------------------------------|----------------|-------------------|-------------------|
| FALL       | SPRING            | FALL              | SPRING     | FALL                          | SPRING         | FALL              | SPRING            |
| CHE 120    | MATH 126          | CHE 305           | CHE 350    | CHE 443                       | CHE 442        | CHE 460L          | CHE 480           |
| ENGR 102   | CHEM 105bL        | CHE 330           | CHE 444aL  | CHE 444bL                     | CHE 444cL      | CHE 485           | CE 363L           |
| MATH 125   | WRIT 150          | MATH 226          | MATH 245   | CHE 450 or 486<br>or PTE 463L | CHE 447        | CE 453            | WRIT 340          |
| CHEM 105aL | GEN ED            | PHYS 151L         | PHYS 152L  | CHEM 430                      | ENE 428 or 429 | GEN ED            | GEN ED            |
| GEN ED     | OPTIONAL ELECTIVE | OPTIONAL ELECTIVE | CHEM 322aL | GEN ED                        | GEN ED         | OPTIONAL ELECTIVE | OPTIONAL ELECTIVE |

## ENGINEERING

**CHE 120:** Introduction to Chemical Engineering  
**CHE 305:** Numerical & Statistical Analysis for Chemical Engineers  
**CHE 330:** Chemical Engineering Thermodynamics  
**CHE 350:** Introduction to Separation Processes  
**CHE 442:** Chemical Reactor Design  
**CHE 443:** Viscous Flow  
**CHE 444aL:** Chemical Engineering Lab  
**CHE 444bL:** Chemical Engineering Lab  
**CHE 444cL:** Chemical Engineering Lab  
**CHE 447:** Heat & Mass Transfer in Chemical Engineering Processes  
**CHE 450:** Sustainable Energy  
**CHE 460L:** Chemical Process Dynamics & Control  
**CHE 480:** Chemical Process & Plant Design  
**CHE 485:** Computer-Aided Chemical Process Design  
**CHE 486:** Design of Environmentally Benign Process Plants  
**CE 363L:** Water Chemistry & Analysis  
**CE 453:** Water Quality Science & Engineering  
**ENE 428:** Air Pollution Fundamentals  
**ENE 429:** Air Pollution Control  
**PTE 463L:** Introduction to Transport Processes in Porous Media  
**ENGR 102:** Engineering Freshman Academy

## MATHEMATICS

**MATH 125:** Calculus I  
**MATH 126:** Calculus II  
**MATH 226:** Calculus III  
**MATH 245:** Mathematics of Phys. & Engr.

## SCIENCE

**CHEM 105abL:** General Chemistry  
**CHEM 322aL:** Organic Chemistry  
**CHEM 430:** Physical Chemistry: Thermodynamics & Kinetics  
**PHYS 151L:** Mechanics & Thermodynamics  
**PHYS 152L:** Electricity & Magnetism

## GENERAL EDUCATION

As a USC Viterbi student your General Education (Gen Ed) curriculum will include courses in the Arts, Humanistic Inquiry and Social Analysis.

## WRITING

**WRIT 150:** Writing & Critical Reasoning  
**WRIT 340:** Advanced Writing

## ELECTIVES

Your optional electives are one way to build engineering+ into your curriculum by choosing classes of interest to you.



Courses with this symbol may be satisfied with certain AP, IB or A-Level exams.

With each requirement you replace with prior credit, you increase your optional electives, creating more flexibility for you to pursue additional electives and increase your engineering+ education.

*This is a simplified version of a complex curriculum with options and choices made between advisor and student. Course choices can vary by semester and adjust to include relevant topics and materials. Although every attempt has been made to ensure accuracy, the program requirements listed in the USC Catalogue supersede any information which may be contained in this or any other publication of any school or department. The information found in this document is not intended for advising purposes. The University reserves the right to change its policies, rules, regulations, requirements and course offerings at any time.*