

- MATH-245 Mathematics of Physics and Engineering I (4.0 Units)

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)
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Junior Year - Semester 2

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)
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Senior Year - Semester 1

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)
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Senior Year - Semester 2

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)
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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*