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18 Units

- CHE 450 Sustainable Energy (CHE 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)
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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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16 Units

- CHE/PTE 463 Transport in Porous Media (CHE 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)
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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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## **Energy & Sustainability Emphasis - Upper Division Elective Requirements**

### **Core Requirements - 8 units**

CHE 450: Sustainable Energy

CHE 463: Transport in Porous Media

### **Select two of the following electives - 8 units**

CE 363L: Water Chemistry and Analysis

CE 453: Water Quality Science and Engineering

CHE 461: Formation Sensing with Well Logs

CHE 464: Modeling of Subsurface Flow

CHE 465: Drilling Technology

ENE 428: Air Pollution Fundamentals

ENE 429: Air Pollution Control

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This is a copy of a plan you created with your advisor. Go to Advise USC to refer to the plan and any related advising notes.