**Fall Quarter** | **Units** | **Winter Quarter** | **Units** | **Spring Quarter** | **Units**
--- | --- | --- | --- | --- | ---
CEE 010 | 2 | CHEM 001B & CHEM 01LB | 5 | CHEM 001C & CHEM 01LC | 5
Intro to Chem. & Envir. Engineering | General Chemistry & Lab | General Chemistry & Lab
CHEM 001A & CHEM 01LA | 5 | ENGL 001B | 4 | ENGL 001C or Alternate* | 4
General Chemistry & Lab | Intermediate Composition | Applied Intermediate Composition
ENGL 001A | 4 | MATH 009B | 4 | MATH 009C | 4
Beginning Composition | First Year Calculus | First Year Calculus
MATH 009A | 4 | PHYS 040A | 5 | PHYS 040B | 5
First Year Calculus | Physics (Mechanics) | Physics (Heat/Waves/Sound)

**SECOND YEAR**

CHEM 110A | 3 | CHE 110B | 3 | MATH 010B | 4
Chemical Process Analysis | Chemical Process Analysis | Multivariable Calculus
CHEM 112A | 4 | CHEM 112B | 4 | CHEM 112C | 4
Organic Chemistry | Organic Chemistry | Organic Chemistry
MATH 046 | 4 | MATH 010A | 4 | CS 010 | 4
Differential Equations | Multivariable Calculus | C++ Programming
PHYS 040C | 5 | CHE 100 | 4 | Breadth | 4
Physics (Electricity/Magnetism) | Engineering Thermodynamics | Humanities/Social Sciences

**THIRD YEAR**

BIOL 005A & BIOL 05LA | 5 | CEE 158 | 3 | CHE 116 | 4
Cell & Molecular Biology & Lab | Professional Development for Engr | Heat Transfer
CHE 114 | 4 | CHE 120 | 4 | CHE/ENVE 130 | 4
Applied Fluid Mechanics | Mass Transfer | Advanced Engr. Thermodynamics
ENGR 118 | 5 | Breadth | 4 | CHE/ENVE 160A | 3
Engineering Modeling & Analysis | Humanities/Social Sciences | Chem. & Envir. Engineering Lab
Breadth | 4 | Technical Elective** | 4 | CHE 122 | 4
Humanities/Social Sciences | Technical Elective** | Chemical Engineering Kinetics

**FOURTH YEAR**

CHE 117 | 4 | CHE 118 | 4 | CHE 175B | 4
Separation Processes | Process Dynamics and Control | Chemical Process Design
CHE 160B | 3 | CHE 160C | 3 | Technical Elective** | 4
Chemical Engineering Lab | Chemical Engineering Lab | Technical Elective**
Technical Elective** | 4 | CHE 175A | 4 | Breadth | 4
Chemical Process Design | Humanities/Social Sciences
Breadth | 4 | Technical Elective** | 4 | Breadth | 4
Humanities/Social Sciences | Technical Elective** | Humanities/Social Sciences

To earn a B.S., you must complete all College and University requirements. For a full list of requirements, go to www.catalog.ucr.edu.

**ENGLISH COMPOSITION***

A C or better is required in all English Composition courses to satisfy the graduation requirement. Please consult with your Academic Advisor for ENGL 1C alternatives.

**BREADTH REQUIREMENTS**

For an approved list of Breadth courses, go to http://student.engr.ucr.edu/policies/requirements/breadth.html.

Humanities: (3 courses)
- A. World History: 
- B. Fine Arts/Lit/Phil/Rlst: 
- C. Human Persp. on Sci: 

Social Sciences: (3 courses)
- A. Econ. or Posc.: 
- B. Anth., Psyc, or Soc.: 
- C. General Social Science: 

Ethnicity: (1 course)

Upper Division: (2 courses)
- 1. 
- 2. 

**TECHNICAL ELECTIVES**

Please note that Technical Electives may be offered throughout the Academic Year. Consult with your Faculty Mentor about potential offerings. See approved technical electives on back.

Course Plan is subject to change.
You must complete 16 units of Technical Elective coursework. Select from the list below:

<table>
<thead>
<tr>
<th>Course</th>
<th>Course Title (Units)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEE 125</td>
<td>Analytical Methods (4)</td>
</tr>
<tr>
<td>CEE 132</td>
<td>Green Engineering (4)</td>
</tr>
<tr>
<td>CEE 135</td>
<td>Chemistry of Materials (4)</td>
</tr>
<tr>
<td>CHE 102</td>
<td>Catalytic Reaction Engineering (4)</td>
</tr>
<tr>
<td>CHE 131</td>
<td>Electrochemical Engineering (4)</td>
</tr>
<tr>
<td>CHE 136</td>
<td>Advanced Topics in Heat Transfer (4)</td>
</tr>
<tr>
<td>CHE 171</td>
<td>Pollution Control for Chemical Engineers (4)</td>
</tr>
<tr>
<td>ENVE 120*</td>
<td>Unit Operations and Processes in Environmental Engineering (4)</td>
</tr>
<tr>
<td>ENVE 133</td>
<td>Fundamentals of Air Pollution Engineering (4)</td>
</tr>
<tr>
<td>ENVE 134*</td>
<td>Technology of Air Pollution Control (4)</td>
</tr>
<tr>
<td>ENVE 138*</td>
<td>Combustion Engineering (4)</td>
</tr>
</tbody>
</table>