GENERAL EDUCATION AND COLLEGE REQUIREMENTS

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. ed. course outside of the student’s major. Courses graded P/NP will not apply.

A grade of C or better is required in each course in the curriculum, including all prerequisite courses.

UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1113</td>
<td>Principles of English Composition</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1213</td>
<td>Principles of English Composition</td>
<td>3</td>
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<tr>
<td>or ENGL 1213</td>
<td>Expository Writing</td>
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</tr>
<tr>
<td>CHEM 1315</td>
<td>General Chemistry (Core II-Lab)</td>
<td>5</td>
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<tr>
<td>PSC 1113</td>
<td>American Federal Government</td>
<td>3</td>
</tr>
<tr>
<td>Choose one course</td>
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<td>3</td>
</tr>
<tr>
<td>Core Area IV: Arts &amp; Humanities</td>
<td></td>
<td></td>
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<tr>
<td>Choose one course</td>
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<td>3</td>
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<tr>
<td>World Culture</td>
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<tr>
<td>Choose one course</td>
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<td>3</td>
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<tr>
<td>Core Area V: First-Year Experience</td>
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<td>Choose one course</td>
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</tbody>
</table>

Total Credit Hours 40-50

FREE ELECTIVES

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours.

MAJOR REQUIREMENTS

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHE 2033</td>
<td>Chemical Engineering Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>CHE 2003</td>
<td>Chemical Engineering/Statistics</td>
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<tr>
<td>CHE 3113</td>
<td>Momentum, Heat and Mass Transfer I</td>
<td>3</td>
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<td>CHE 3123</td>
<td>Momentum, Heat and Mass Transfer II</td>
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<tr>
<td>CHE 3473</td>
<td>Chemical Engineering Thermodynamics</td>
<td>3</td>
</tr>
<tr>
<td>CHE 3723</td>
<td>Numerical Methods for Engineering Computation</td>
<td>3</td>
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<tr>
<td>CHE 3333</td>
<td>Separation Processes</td>
<td>3</td>
</tr>
<tr>
<td>CHE 3432</td>
<td>Unit Operations Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>CHE 4473</td>
<td>Kinetics</td>
<td>3</td>
</tr>
<tr>
<td>CHE 4262</td>
<td>Chemical Engineering Design Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>CHE 4153</td>
<td>Process Dynamics and Control</td>
<td>3</td>
</tr>
<tr>
<td>CHE 4253</td>
<td>Process Design &amp; Safety</td>
<td>3</td>
</tr>
<tr>
<td>CHE 4273</td>
<td>Advanced Process Design</td>
<td>3</td>
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<tr>
<td>CHE 3313</td>
<td>Structure and Properties of Materials</td>
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Total Credit Hours 40

MAJOR SUPPORT REQUIREMENTS

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>CHEM 1435</td>
<td>General Chemistry II: Signature Course</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 3064</td>
<td>Organic Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 3423</td>
<td>Physical Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 3164</td>
<td>Organic Chemistry II</td>
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<td>CHEM 3421</td>
<td>Physical Chemistry Laboratory</td>
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<tr>
<td>MATH 2924</td>
<td>Differential and Integral Calculus II</td>
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<tr>
<td>MATH 2934</td>
<td>Differential and Integral Calculus III</td>
<td>4</td>
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<tr>
<td>MATH 3113</td>
<td>Introduction to Ordinary Differential Equations</td>
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<tr>
<td>PHYS 2524</td>
<td>General Physics for Engineering and Science Majors</td>
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<tr>
<td>Technical Electives</td>
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<td>Technical Elective I</td>
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<td>Technical Elective II</td>
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<tr>
<td>Advance Chemistry Elective</td>
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<td></td>
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<tr>
<td>Chosen from approved list of courses maintained by the department</td>
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Additional College Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>ENGR 1411</td>
<td>Pathways to Engineering Thinking 2</td>
<td>1</td>
</tr>
<tr>
<td>ENGR 2002</td>
<td>Professional Development</td>
<td>2</td>
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<tr>
<td>ENGR 2411</td>
<td>Applied Engineering Statics</td>
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</tr>
<tr>
<td>ENGR 2431</td>
<td>Electrical Circuits</td>
<td>1</td>
</tr>
<tr>
<td>ENGR 3431</td>
<td>Electromechanical Systems</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credit Hours 47

OU encourages students to complete at least 32 hours of applicable coursework each year to have the opportunity to graduate in 4 years.

Bachelor of Science in Chemical Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria, Biochemical, Biomedical and Similarly Named Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses.

## SUGGESTED SEMESTER PLAN OF STUDY

Bachelor of Science in Chemical Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Chemical, Biochemical, Biomolecular and Similarly Named Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses. Chemical engineering courses are sequential and usually offered only in the semester shown; note prerequisites.

Two college-level courses in a single world language are required; this may be satisfied by successful completion of 2 years in a single world language in high school. Students who must take a language at the University will have an additional 6-10 hours of coursework.

Courses designated as Core I, II, III, IV or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list.

Courses transfer students may take. It is recommended that ENGR 2431 and ENGR 3431 be taken in the same semester. The courses are offered in sequential five-week blocks during the semester. Prior faculty approval is needed.

### Yearly Course Requirement

<table>
<thead>
<tr>
<th>Year</th>
<th>FIRST SEMESTER</th>
<th>Seconds SEMESTER</th>
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<tbody>
<tr>
<td>FRESHMAN</td>
<td>ENGL 1113 Principles of English Composition (Core I)</td>
<td>ENGL 1213 or EXPO 1213 Principles of English Composition (Core I) or Expository Writing</td>
</tr>
<tr>
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<td>CHEM 1315 General Chemistry (Core II-Lab)</td>
<td>CHEM 1435 General Chemistry II: Signature Course (Core II-Lab)</td>
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<td>MATH 1914 Differential and Integral Calculus (Core I)</td>
<td>MATH 2924 Differential and Integral Calculus II</td>
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<td>ENGR 1411 Pathways to Engineering Thinking</td>
<td>PHYS 2514 General Physics for Engineering and Science Majors (Core II)</td>
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<td>Approved Elective: First-Year Experience (Core V)</td>
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<tr>
<td>CREDIT HOURS</td>
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<td>16</td>
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<tr>
<td>SOPHOMORE</td>
<td>MATH 2934 Differential and Integral Calculus III</td>
<td>MATH 3113 Introduction to Ordinary Differential Equations</td>
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<td>PHYS 2524 General Physics for Engineering and Science Majors</td>
<td>CHEM 3164 Organic Chemistry II</td>
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<td>CH E 2033 Chemical Engineering Fundamentals</td>
<td>CH E 3113 Momentum, Heat and Mass Transfer I</td>
</tr>
<tr>
<td></td>
<td>CHEM 3064 Organic Chemistry I</td>
<td>CHEM 3423 Physical Chemistry I</td>
</tr>
<tr>
<td></td>
<td>Approved Elective, World Culture (Core IV)</td>
<td>CH E 2003 Chemical Engineering Computing/Statistics</td>
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<tr>
<td>CREDIT HOURS</td>
<td>15</td>
<td>16</td>
</tr>
<tr>
<td>JUNIOR</td>
<td>CH E 3123 Momentum, Heat and Mass Transfer II</td>
<td>CH E 3333 Separation Processes</td>
</tr>
<tr>
<td></td>
<td>CH E 3473 Chemical Engineering Thermodynamics</td>
<td>CH E 3432 Unit Operations Laboratory</td>
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<td></td>
<td>CH E 3723 Numerical Methods for Engineering Computation</td>
<td>CH E 4473 Kinetics</td>
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<td>CHEM 3421 Physical Chemistry Laboratory</td>
<td>HIST 1483 United States to 1865 (Core IV)</td>
</tr>
<tr>
<td></td>
<td>Approved Elective, Social Science (Core III)</td>
<td>HIST 1493 United States, 1865 to the Present</td>
</tr>
<tr>
<td>CREDIT HOURS</td>
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<td>17</td>
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<tr>
<td>SENIOR</td>
<td>P SC 1113 American Federal Government (Core III)</td>
<td>CH E 4273 Advanced Process Design</td>
</tr>
<tr>
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<td>CH E 4153 Process Dynamics and Control</td>
<td>CH E 3313 Structure and Properties of Materials</td>
</tr>
<tr>
<td></td>
<td>CH E 4253 Process Design &amp; Safety</td>
<td>CH E 4262 Advanced Chemistry Elective chosen from approved list</td>
</tr>
<tr>
<td></td>
<td>CH E 4262 Chemical Engineering Design Laboratory</td>
<td>Advanced Chemistry Elective maintained by department</td>
</tr>
<tr>
<td></td>
<td>ENGR 2431 Electrical Circuits</td>
<td>ENGR 3431 Approved Elective, World Culture (Core IV)</td>
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<td>ENGR 3431 Electromechanical Systems</td>
<td>ENGR 2411 Applied Engineering Statics</td>
</tr>
<tr>
<td></td>
<td>Technical Elective I</td>
<td>Technical Elective II</td>
</tr>
<tr>
<td>CREDIT HOURS</td>
<td>16</td>
<td>16</td>
</tr>
</tbody>
</table>

1. CHEM 1315 can be substituted with CHEM 1335 or CHEM 1425 (Fall only). CHEM 1435 can be substituted with CHEM 1415.
2. MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, and MATH 2934.
3. Engineering transfer students may take ENGR 3511 in place of ENGR 1411.
4. To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000). See list in the Class Schedule.
5. It is recommended that ENGR 2431 and ENGR 3431 be taken in the same semester. The courses are offered in sequential five-week blocks during the semester.
6. One of the Technical Elective I, Technical Elective II, or the Advanced Chemistry elective must be CH E. Prior faculty approval is needed.