

[Please refer to the Undergraduate Catalog for further program requirements and course descriptions.](#)

| <b>First Year – 35-36 Hours</b>   |            |   |            |
|---|------------|---|------------|
| <b>Fall Semester:</b>   | <b>Hrs</b> | <b>Spring Semester:</b>   | <b>Hrs</b> |
| ENME 1030/1030L: <i>Basic Engineering Science/Lab</i>   | 4          | ENCE 1040: <i>Vector Statics</i>  | 3          |
| CHEM 1110/1110L: <i>General Chemistry I/Lab</i><br>(Natural Science)                            | 4          | CHEM 1120/1120L: <i>General Chemistry II/Lab</i>                                      | 4          |
| MATH 1950: <i>Calculus w/ Analytic Geometry I</i> (Quantitative Reasoning)                      | 4          | MATH 1960: <i>Calculus w/ Analytic Geometry II</i>                                    | 4          |
| Writing and Communication   | 3-4        | ENCH 1000: <i>Introduction to Chemical Engineering</i>                                | 3          |
| Behavioral and Social Science   | 3          | Writing and Communication   | 3          |
|   | 18-19      |   | 17         |
| <b>Second Year – 34-35 Hours</b>  |            |   |            |
| <b>Fall Semester:</b>   | <b>Hrs</b> | <b>Spring Semester:</b>   | <b>Hrs</b> |
| ENCH 2240: <i>Chemical Engineering Computations</i>   | 3          | ENCE 2220: <i>Probability and Statistics for Engineering</i> (Quantitative Reasoning) | 3          |
| CHEM 3010/3010L: <i>Organic Chemistry I/Lab</i>   | 4          | CHEM 3020/3020L: <i>Organic Chemistry II/Lab</i>                                      | 4          |
| MATH 2200: <i>Elementary Linear Algebra</i>   | 3          | MATH 2560: <i>Calculus w/ Analytic Geometry III</i>                                   | 4          |
| MATH 2450: <i>Introduction to Differential/Difference Equations</i>                             | 3          | Behavioral and Social Science   | 3          |
| PHYS 2310/2310L: <i>Principles of Physics - Electricity and Magnetism/Lab</i> (Natural Science) | 4          | Humanities and Fine Arts  | 3-4        |
|   | 17         |   | 17-18      |
| <b>Third Year – 34 Hours</b>  |            |   |            |
| <b>Fall Semester:</b>   | <b>Hrs</b> | <b>Spring Semester:</b>   | <b>Hrs</b> |
| ENCE 3520: <i>Engineering Economy</i>   | 3          | ENCH 3040: <i>Chemical Thermodynamics</i>   | 3          |
| ENCH/ENME 3030: <i>Thermodynamics</i>   | 3          | ENCH 3280/3280L: <i>Control Systems /Lab</i>  | 4          |
| ENCH 3310: <i>Chemical Process Principles</i>   | 3          | ENCH 3320: <i>Heat Transfer Processes</i>   | 3          |
| ENCH 3350: <i>Unit Operations Laboratory</i>  | 1          | ENME 3070/3070L: <i>Fluid Mechanics/Lab</i>   | 4          |
| ENME 3400: <i>Engineering Materials Science</i>   | 3          | Approved Junior Technical Elective  | 4          |
| CHEM 3710: <i>Physical Chemistry: Thermodynamics and Kinetics</i>                               | 3          |   |            |
|   | 16         |   | 18         |
| <b>Fourth Year – 30-32 Hours</b>  |            |   |            |
| <b>Fall Semester:</b>   | <b>Hrs</b> | <b>Spring Semester:</b>   | <b>Hrs</b> |
| ENCH 4290: <i>Intro to Chemical Engineering Design</i>  | 3          | ENCH 4300: <i>Chemical System Design</i>  | 3          |
| ENCH 4320: <i>Fractional Distillation Separation Processes</i>                                  | 3          | ENCH 4340: <i>Chemical Kinetics and Reactor Design</i>                                | 3          |
| ENCH 4330: <i>Chemical Process Operations</i>   | 3          | Approved Senior Technical Elective  | 3          |
| ENCH 4350: <i>Chemical Processes Lab</i>  | 2          | Humanities and Fine Arts  | 3-4        |
| Approved Junior Technical Elective  | 4          | Individual and Global Citizenship   | 3-4        |
|   | 15         |   | 15-17      |

| <b>Completed:</b>                         |            |  |            |
|---|------------|--|------------|
| <b>Graduation Requirements:</b>           | <b>Hrs</b> | <b>Degree Requirements:</b>              | <b>Hrs</b> |
| 128 Total Hours                           |            | 21-25 General Education Hours            |            |
| 39 Upper Division (3000-4000 Level) Hours |            | 112 Program (Major) Hours                |            |
| 32 Hours at UTC                           |            | Minor ( <i>Not Required</i> )            |            |
| 45 Hours at 4-year Institution            |            | Elective Hours ( <i>Not Required</i> )   |            |
|   |            | Foreign Language ( <i>Not Required</i> ) |            |