

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

| First Year – 29-33 Hours | | | |
|--|-------|--|-------|
| <i>Fall Semester:</i> | Hrs | <i>Spring Semester:</i> | Hrs |
| CHEM 1110/1110L: <i>General Chemistry I/Lab</i> (Natural Science) | 4 | CHEM 1120/1120L: <i>General Chemistry II/Lab</i> | 4 |
| MATH 1950: <i>Calculus with Analytic Geometry I</i> (Quantitative Reasoning) | 4 | MATH 1960: <i>Calculus with Analytic Geometry II</i> | 4 |
| PHYS 1250: <i>The First Year Experience in Physics</i> | 1 | PHYS 1350: <i>Introduction to Data Analysis and Python Programming for STEM students</i> | 3 |
| Behavioral and Social Science | 3 | Writing and Communication (ENGL 1020) | 3 |
| Elective (ENGL 1010 or 1011)* | 0-4 | Behavioral and Social Science | 3 |
| | 12-16 | | 17 |
| Second Year – 29 Hours | | | |
| <i>Fall Semester:</i> | Hrs | <i>Spring Semester:</i> | Hrs |
| CPSC 1100: <i>Fundamentals of Computer Science</i> | 4 | MATH 2560: <i>Calculus with Analytic Geometry III</i> | 4 |
| MATH 2100: <i>Introductory Statistics</i> or MATH 3100: <i>Applied Statistics</i> (Quantitative Reasoning) | 3 | PHYS 2310/2310L: <i>Principles of Physics - Electricity and Magnetism/Lab</i> | 4 |
| MATH 2200: <i>Elementary Linear Algebra</i> | 3 | PHYS 2320/2320L: <i>Principles of Physics - Optics and Modern Physics/Lab</i> | 4 |
| PHYS 2300/2300L: <i>Principles of Physics - Mechanics and Heat/Lab</i> (Natural Science) | 4 | PHYS 3810: <i>Introduction to Quantum Information Science and Technology</i> | 3 |
| | 14 | | 15 |
| Third Year – 30-32 Hours | | | |
| <i>Fall Semester:</i> | Hrs | <i>Spring Semester:</i> | Hrs |
| ENGL 2820: <i>Scientific Writing</i> | 3 | PHYS 3420: <i>Electricity and Magnetism</i> | 4 |
| MATH 2450: <i>Introduction to Differential and Difference Equations</i> | 3 | PHYS 4110: <i>Introduction to Quantum Mechanics</i> | 3 |
| PHYS 3110: <i>Introduction to Thermal Physics</i> | 4 | Approved Technical Elective (3000-4000 Level)** | 3-4 |
| PHYS 3410: <i>Classical Mechanics</i> | 4 | Humanities and Fine Arts | 3-4 |
| THSP 1090: <i>Public Speaking</i> (Writing and Communication) | 3 | | |
| | 17 | | 13-15 |
| Fourth Year – 28-33 Hours | | | |
| <i>Fall Semester:</i> | Hrs | <i>Spring Semester:</i> | Hrs |
| PHYS 3070/3070L: <i>Optics/Lab</i> | 4 | PHYS 3180: <i>Radiation Physics and Introductory Health Physics</i> or PHYS 4997R: <i>Research</i> | 3 |
| PHYS 3990: <i>Methods of Experimental Physics II</i> | 3 | Approved Technical Elective (3000-4000 Level)** | 3-4 |
| PHYS 4810: <i>Physics Concepts in Quantum Information Science and Technology</i> | 3 | Humanities and Fine Arts | 3-4 |
| Humanities and Fine Arts | 3-4 | Individual and Global Citizenship | 3-4 |
| Humanities and Fine Arts | 3-4 | | |
| | 16-18 | | 12-15 |

*If a student does not place into ENGL 1020 (30+ on ACT English or 680+ on SAT Verbal), ENGL 1010 or 1011 is required.

**If taken for 3 credit hours, additional upper division hours in Physics or Astronomy are required.

| Completed: | | | |
|---|-----|--|-----|
| Graduation Requirements: | Hrs | Degree Requirements: | Hrs |
| 120 Total Hours | | 24-29 General Education Hours | |
| 39 Upper Division (3000-4000 Level) Hours | | 92-94 Program (Major) Hours | |
| 30 Hours at UTC | | Minor (<i>Not Required</i>) | |
| 45 Hours at 4-year Institution | | 0-4 Elective Hours | |
| | | Foreign Language (<i>Not Required</i>) | |