

Program Map: Chemistry (ACS Certified)
Chemistry Department, College of Science and Technology

Name: _____ **SID:** _____ **Advisor:** _____
Start Date: _____ **Catalog Date:** _____ **Expected Graduation Date:** _____

| Freshman | Fall Courses | | | Spring Courses | | | Notes |
|---------------------------|---|---------------------------------|--------------------------|--|--|--------------|-------|
| | Course | Name | Hours | Course | Name | Hours | |
| | ENGL 1101* Core Area A | Composition I Pre-requisite: | 3 | ENGL 1102* Core Area A | Composition II Pre-requisite: ENGL 1101 | 3 | |
| MATH 1113* Core Area A | Pre-Calculus Pre-requisite: MATH 1111 | 3 | MATH 2101* Area F | Calculus I Pre-requisite: MATH 1113 | 4 | | |
| CHEM 1211* Area F | Principles of Chemistry I* Pre-requisite: None | 3 | CHEM 1212* Area F | Principles of Chemistry II Pre-requisite: CHEM 1211 | 3 | | |
| CHEM 1211L* Area F | Principles of Chemistry I Lab* Pre-requisite: None | 1 | CHEM 1212L* Major | Principles of Chemistry II Lab Pre-requisite: CHEM 1211 | 1 | | |
| BIOL 1107* Area D | Principles of Biology I Pre-requisite: None | 3 | BIOL 1108* Area D | Principles of Biology II Pre-requisite: BIOL 1107 | 3 | | |
| BIOL 1107* Area D Lab | Principles of Biology I Pre-requisite: None | 1 | BIOL 1107* Area D Lab | Principles of Biology I Lab Pre-requisite: BIOL 1107L | 1 | | |
| COST 1103 Area F | COST First Year Experience | 2 | | | | | |
| Fall Milestones | | | Total | Spring Milestones | | Total | |
| | | | 16 | | | 15 | |

| Sophomore | Fall Courses | | | Spring Courses | | | Notes |
|---|--|---|--------------------------|---|--|--------------|-------|
| | Course | Name | Hours | Course | Name | Hours | |
| | MATH 2111* Area F | Calculus II Pre-requisite: MATH 2101 | 4 | CHEM 2601K* Major | Chemistry Research Methods Pre-requisite: CHEM 1212 | 2 | |
| HUMN 1201 Core Area B | Critical Thinking & Communication | 3 | PHYS 2211K* Major | Introductory Physics II Pre-requisite: PHYS 1111K | 4 | | |
| PHYS 2211K* Major | Introductory Physics Pre-requisite: MATH 1113 | 4 | CHEM 2511* Major | Organic Chemistry II Pre-requisite: CHEM 2501 | 3 | | |
| CHEM 2501* Major | Organic Chemistry I Pre-requisite: CHEM 1212 | 3 | CHEM 2511L* Major | Organic Chemistry II Lab Pre-requisite: CHEM 2501L | 1 | | |
| CHEM 2501L* Major | Organic Chemistry I Lab Pre-requisite: CHEM 1212L | 1 | Area D (non-lab)* | | 3 | | |
| Area E Social Sci. Option | | 3 | AFRS 1501 Core Area B | Survey of African American Experience | 2 | | |
| Fall Milestones | | | Total | Spring Milestones | | Total | |
| Student should know their career track. | | | 18 | Student should have completed a job shadowing experience relevant to their career track | | 15 | |

| Junior | Fall Courses | | | Spring Courses | | | Notes |
|--|--|--|--------------------------|--|---|-------|-------|
| | Course | Name | Hours | Course | Name | Hours | |
| | CHEM 3101K* Major | Analytical Chemistry Pre-requisite: CHEM 1212/1212L | 4 | CHEM 3411K* Major | Physical Chemistry II Pre-requisite: CHEM 3401 | 4 | |
| CHEM 3401K* Major | Physical Chemistry I Pre-requisite: CHEM 1212/1212L | 4 | CHEM 3111K* Major | Instrumental Analysis Pre-requisite: CHEM 310K | 4 | | |
| CHEM 3201K* Major | Inorganic Chemistry Pre-requisite: CHEM 1212/1212L | 4 | MATH 3101* Major | Linear Algebra Pre-requisite: MATH 2111 | 3 | | |
| CHEM 3522L* Major | Advanced Synthesis Pre-requisite: CHEM 2511/2511L | 2 | POLS 1101 Core Area E | American Government | 3 | | |
| HIST 2111 or 2112 | U.S. History | 3 | Core Area C Option | | 3 | | |
| Student should have completed an internship or research experience relevant to their career track. | | | 17 | Students should have completed any required admissions testing for their career track (GRE, MCAT, PCAT, DAT) | | 17 | |

| Senior | Fall Courses | | | Spring Courses | | | Notes |
|---|---|--|---------------------|--|------|---|-------|
| | Course | Name | Hours | Course | Name | Hours | |
| | CHEM 3801* Major | Biochemistry Pre-requisite: CHEM 2511/BIOL 1108 | 3 | Area E Social Sci. Option | | 3 | |
| CHEM 3602K* Major | Research & Internship Pre-requisite: CHEM 2601K; CHEM 2511 | 2 | Core Area C Option | | 3 | | |
| CHEM 4531* Major | Advanced Organic Chemistry Pre-requisite: | 3 | FSCI 4201* Major | Drug Abuse & Drug Analysis Pre-requisite: | 3 | **Some professional educational programs may need to be completed by the summer before the senior year. | |
| CHEM 4411* Major | Advanced Physical Chemistry Pre-requisite: | 3 | CHEM 4601* Major | Polymer Chemistry Pre-requisite: | 3 | Does this Degree Program Require a Minor? <u>No</u> | |
| CHEM 4901* Major | Chemical Seminar Pre-requisite: Junior or Senior | 1 | | | | Total Hours Required for this Degree Program: <u>122</u> | |
| Fall Milestones | | | Total | Spring Milestones | | Total | |
| Application completed for further professional educational programs relative to your career track** | | | 12 | | | 12 | |

Program Map: Chemistry
Chemistry Department, College of Science and Technology

Core Curriculum (Programmed Preferred Options in Bold)

Area B – Institutional Options 5 hrs

- i. AFRS 1501 Survey of African-American Experience 2 hrs
- ii. HUMN 1201 Critical Thinking & Communication 3 hrs

Area C – Humanities/Fine Arts, and Ethics 6 hrs,

1. Select one of the following:
 - i. ENGL 2111 World Literature I 3 hrs
 - ii. ENGL 2112 World Literature II 3 hrs
 - iii. ENGL 2121 British Literature I 3 hrs
 - iv. ENGL 2122 British Literature II 3 hrs
 - v. ENGL 2131 American Literature I 3 hrs
 - vi. ENGL 2132 American Literature II 3 hrs
 - vii. ENGL 2222 African American Literature 3 hrs
 - viii. PHIL 2010 Introduction to Philosophy 3 hrs
 - ix. PHIL 2030 Introduction to Ethics 3 hrs
2. Select one of the following:
 - i. ARTS 1101 Introduction to Visual Art 3 hrs
 - ii. DNCE 2010 Dance Appreciation 3 hrs
 - iii. ENGL 2521 Introduction to Film 3 hrs
 - iv. HUMN 2011 Humanities 3 hrs
 - v. MUSC 1101 Introduction to Music 3 hrs
 - vi. THEA 2101 Introduction to Theatre 3 hrs

Area D – Natural Sciences, Math & Technology 10 hrs

1. Select one of the following:
 - i. BIOL 1107 Principles of Biology I 3 hrs
 - ii. BIOL 1108 Principles of Biology II 3 hrs
 - iii. CHEM 1211 Principles of Chemistry I 3 hrs
 - iv. CHEM 1212 Principles of Chemistry II 3 hrs
 - v. CISM 1130 Computer Applications 3 hrs
 - vi. CSCI 1130 Computer Applications 3 hrs
 - vii. CSCI 1301 Computer Science I 3 hrs
 - viii. ENVS 1140 Environmental Issues 3 hrs
2. Select two of the following lab sciences in sequence:
 - i. **BIOL 1107/1107L Principles of Biology I 4 hrs**
 - ii. **BIOL 1108/1108L Principles of Biology II 4 hrs**
 - iii. CHEM 1211/1211L Principles of Chemistry 4 hrs
 - iv. CHEM 1212/1212L Principles of Chemistry 4 hrs
 - v. PHYS 1111K Introductory Physics I 4 hrs
 - vi. PHYS 1112K Introductory Physics II 4 hrs
 - vii. PHYS 2211K Principles of Physics I 4 hrs
 - viii. PHYS 2212K Principles of Physics II 4 hrs

Area E – Social Science 12 hrs

- i. POLS 1101 American Government 3 hrs
2. Select one of the following:
 - i. HIST 2111 U.S. History to the Post-Civil War Period 3 hrs
 - ii. HIST 2112 U.S. History from the Post-Civil War to Pre 3 hrs
3. Select two of the following:
 - i. AFRS 2000 Introduction to Africana Studies 3 hrs
 - ii. ANTH 1101 Introduction to Anthropology 3 hrs
 - iii. ECON 2105 Principles of Macro-Economics 3 hrs
 - iv. GEOG 1101 Introduction to Human Geography 3 hrs
 - v. HIST 1111 World Hist to Early Modern Times 3 hrs
 - vi. HIST 1112 World History Early Modern Times to Pres 3 hrs
 - vii. POLS 2401 Global Issues 3 hrs
 - viii. PSYC 1101 Intro to General Psychology 3 hrs
 - ix. PSYC 2103 Human Growth & Development 3 hrs
 - x. SOCI 1101 Introduction to Sociology 3 hrs
 - xi. SOCI 1160 Social Problems 3 hrs