Professors: Larivee (Chair), Senese  
Associate Professors: Biser, Simon  
Assistant Professors: Crawford, Norris

- All chemistry majors must take the core courses and select either the Traditional Track, Professional Concentration, Biochemistry Concentration or Teaching Certification Option to fulfill requirements for the major. The Traditional Track is recommended for students wishing to double major.  
- Chemistry is often selected as a major by students planning to enter health professions careers. The Biochemistry Concentration is a suitable choice. (See the section on Health Professions Preparation of this catalog.)  
- The Professional Concentration is a strong program for graduate school preparation.

**Major**

1. Core Introductory Level Courses: (8 hours)
   - CHEM 201 General Chemistry I (GEP Group C)
   - CHEM 202 General Chemistry II

2. Core Advanced Courses: (13 hours)
   - CHEM 311 Organic Chemistry I
   - CHEM 312 Organic Chemistry Laboratory I
   - CHEM 321 Organic Chemistry II
   - CHEM 322 Organic Chemistry Laboratory II
   - CHEM 304 Computational Tech. in Chem. (Tech. Fluency)
   - CHEM 305 Research Methods in Chemistry
   - CHEM 441 Physical Chemistry Lecture I
   - CHEM 442 Physical Chemistry Laboratory I
   - CHEM 491 Seminar in Chemistry
   - CHEM 492 Capstone Experience

3. Required Courses in Mathematics: (4 hours)
   - MATH 238 Calculus III

4. Choice of Specialization: (12-61.5 hours)
   Majors must choose the Traditional Track, Professional Concentration, Biochemistry Concentration or Teaching Certification Option. Requirements listed below.

5. All majors must earn a C or better in CHEM 201, 202, 311, 320, 321.

**Minor**

1. Core Introductory Level Courses: (8 hours)
   - CHEM 201 General Chemistry I (GEP Group C)
   - CHEM 202 General Chemistry II

2. Core Advanced Courses: (17 hours)
   - CHEM 311 Organic Chemistry I
   - CHEM 312 Organic Chemistry Laboratory I
   - CHEM 321 Organic Chemistry II
   - CHEM 322 Organic Chemistry Laboratory II
   - CHEM 304 Computational Tech. in Chem. (Tech. Fluency)
   - CHEM 305 Research Methods in Chemistry
   - CHEM 441 Physical Chemistry Lecture I
   - CHEM 442 Physical Chemistry Laboratory I
   - CHEM 491 Seminar in Chemistry
   - CHEM 492 Capstone Experience

3. Required Courses in Mathematics: (8 hours)
   - MATH 238 Calculus III

4. All majors in this track must earn a C or better in CHEM 441.
Requirements for the Secondary Education Chemistry Track

1. Core Courses: (47 hours)
   Required of all Chemistry majors, listed above.

2. Advanced Courses: (8 hours)
   CHEM 421 Instrumental Analysis
   CHEM 455 Biochemistry I
   CHEM 394 Peer Mentoring in Chemistry

3. Required Courses in Other Departments (4 hours)
   BIOL 149 General Biology (GEP Group C)

4. Required Course in Education (33 hours)
   • Must complete the Secondary Teacher Education Major.
   • See the Secondary Teacher Education Program Coordinator for details.
   • Note: This track may not meet the requirement for graduate studies in chemistry.

Requirements for the Professional Concentration for Chemistry Majors

1. Core Courses: (47 hours)
   Required of all Chemistry majors, listed above.

2. Advanced Courses: (16 hours)
   CHEM 411 Advanced Inorganic Chemistry
   CHEM 421 Instrumental Analysis
   CHEM 442 Physical Chemistry II
   CHEM 446 Physical Chemistry Lab II
   CHEM 455 Biochemistry I
   CHEM 493 Advanced Chemistry Research (1 hour)

3. Required Elective Courses (5-6 hours)
   A minimum of 5 hours in at least two courses:
   CHEM 420 Environmental Chemical Analysis
   CHEM 438 Advanced Organic Chemistry
   CHEM 456 Biochemistry Lab
   CHEM 457 Biochemistry II
   CHEM 460 Environmental Chemistry
   CHEM 490 Selected Topics in Chemistry
   CHEM 493 Advanced Chemistry Research (2 additional hours)

4. Required Course in Other Departments: (8 hours)
   BIOL 149 General Biology
   MATH 238 Calculus III

5. All majors in this concentration must earn a C or better in CHEM 441.

Requirements for the Biochemistry Concentration for Chemistry Majors

1. Core Courses: (47 hours)
   Required of all Chemistry majors, listed above.

2. Advanced Courses: (9 hours)
   CHEM 455 Biochemistry I
   CHEM 456 Biochemistry Lab
   CHEM 457 Biochemistry II

3. Required Courses in Biology: (15 hours)
   BIOL 149 General Biology I (GEP Group C)
   BIOL 304 Microbiology
   BIOL 350 Genetics
   BIOL 435 Molecular Biology

4. Required Electives: (1-4 hours)
   Select from among:
   CHEM 411 Advanced Inorganic Chemistry
   CHEM 420 Environmental Chemical Analysis
   CHEM 421 Instrumental Analysis
   CHEM 442 Physical Chemistry II
   CHEM 493 Advanced Chemistry Research (1-3 hours)
   MATH 238 Calculus III

5. All majors in this concentration must earn a C or better in CHEM 455.