

## Department of Chemistry and Biochemistry

### Faculty

- Julie Marshall, Ph.D., Chair
- Amanda Boston, Ph.D.
- Byron Rogers, Ph.D.
- Jessica Rogers, M.S.
- Scott Young, M.S.

### Degrees

To earn a degree, students must complete the curriculum and meet other requirements for a degree listed in the academic policy section of this catalog.

- [BS in Biochemistry](#)
- [BS in Chemistry](#)
- [BS in Chemistry with Education Certification](#)

### Bachelor of Science in Biochemistry

#### A. University Core (45 hours)

- BIB1310 Introduction to the Old Testament
- BIB1320 Introduction to the New Testament
- BIB3305 Christian Heritage
- BIB3310 Christian Life
- COM2340 Communication for the Professional
- ENG1301 Composition Studies
- ENG1302 Composition and Literature
- 3 hours from
  - PSY1300 General Psychology
  - SOC1300 General Sociology
- HIS2301 History of the United States I
- 3 hours from ECO, FIN, GOV, or HIS
- ESS1200 Personal Fitness and Wellness
- UNI1170 University Seminar
- MAT 1312 Trigonometry or higher
- CHE1307 General Chemistry I
- 6 hours from AFA, Arts History, ENG, GOV, HIS, PHI, REL, FOL, or BIL
- UNI2000 University Skills

#### B. Major (32 hours)

- CHE1107 General Chemistry Lab I
- CHE1308 General Chemistry II
- CHE1108 General Chemistry II Lab
- CHE3301 Organic Chemistry I
- CHE3101 Organic Chemistry I Lab
- CHE3302 Organic Chemistry II
- CHE3102 Organic Chemistry II Lab
- CHE3305 Analytical Chemistry I
- CHE3307 Advanced Instrumentation and Laboratory Methods
- CHE4311 Biochemistry I
- CHE4312 Biochemistry II
- CHE4323 Physical Chemistry I
- UGR4388 Undergraduate Research
- CHE4102 Senior Seminar

#### C. Supporting Courses (42 hours)

- MAT1402 Analytical Geometry and Calculus I
- BIO1405 Majors Biology I
- BIO1406 Majors Biology II
- ENG3308 Technical Writing
- PHY1303 General Physics I
- PHY1103 General Physics I Lab
- PHY1304 General Physics II
- PHY1104 General Physics II Lab
- 10 hours from BIO, at least 3 hours from upper level
- 9 hours from PSY, SOC, or HSC

D. Electives (7 hours)

E. Total (126 hours)

### **Bachelor of Science in Chemistry**

A. University Core (46 hours)

- BIB1310 Introduction to the Old Testament
- BIB1320 Introduction to the New Testament
- BIB3305 Christian Heritage
- BIB3310 Christian Life
- COM2340 Communication for the Professional
- ENG1301 Composition Studies
- ENG1302 Composition and Literature
- 3 hours from
  - PSY1300 General Psychology
  - SOC1300 General Sociology
- 3 hours from HIS
- 3 hours from ECO, FIN, GOV, or HIS
- ESS1200 Personal Fitness and Wellness
- UNI1170 University Seminar
- MAT1402 Analytical Geometry and Calculus I
- CHE1307 General Chemistry I
- 6 hours from AFA, Arts History, ENG, GOV, HIS, PHI, REL, FOL, or BIL
- UNI2000 University Skills

B. Major (35 hours)

- CHE1107 General Chemistry Lab I
- CHE1308 General Chemistry II
- CHE1108 General Chemistry II Lab
- CHE3301 Organic Chemistry I
- CHE3101 Organic Chemistry I Lab
- CHE3302 Organic Chemistry II
- CHE3102 Organic Chemistry II Lab
- CHE3305 Analytical Chemistry I
- CHE3105 Analytical Chemistry Lab I
- CHE3307 Advanced Instrumentation
- CHE4102 Chemical Literature and Seminar
- CHE4311 Biochemistry I
- CHE4312 Biochemistry II
- CHE4323 Physical Chemistry I
- CHE4123 Physical Chemistry Lab I
- CHE4424 Physical Chemistry II

C. Supporting Courses (32 hours)

- 1 hour from ESS Activity Course

- IST2300 Microcomputer Applications
- IST3300 Advanced Spreadsheets
- 3 hours from IST or MAT
- ENG3308 Technical Writing
- MAT1403 Analytical Geometry and Calculus II
- MAT2404 Analytical Geometry and Calculus III
- MAT3306 Differential Equations
- PHY2301 Engineering Physics I
- PHY2101 Engineering Physics I Lab
- PHY2302 Engineering Physics II
- PHY2102 Engineering Physics II Lab

D. Electives (7 hours)

E. Total (120 hours)

### **Bachelor of Science in Chemistry with Educator Certification**

Students planning to certify to teach are required to take the following courses in addition to the Bachelor of Science requirements outlined above. Refer to the educator certification section of this catalog for other requirements.

Pedagogy and Professional Responsibility (6 hours)

- 3 hours from
  - EDS2310 Foundations of Education
  - EDS2320 Instructional Technology
  - EEL2310 Teachers, Schools, and Society
- ESP3382 The Exceptional Child

Methods Block (9 hours)

- 3 hours from
  - EDS4340 Reading/Writing/Thinking in Secondary and Middle School
  - REA3340 Reading Writing Connection
  - REA4350 Practical Applications to Reading
- EDS4330 Managing Diverse Classrooms
- EDS4350 Design and Delivery

Clinical Teaching Block (12 hours)

- EDS4310 Assessment and Evaluation
- EDS4360 Seminar in Education
- EDS4660 Student Teaching

### **Minor in Chemistry**

Minor in Chemistry (18 hours)

- CHE1307
- CHE1107
- CHE1308
- CHE1108
- 10 upper level hours from two areas of chemistry (analytical, biochemistry, organic, or physical) with 2-3 hours from labs