B.S. in Biological Chemistry

2010 – 2011 Catalog

Total Credit Hours Required: 120
Advanced Credit Hours Required: 36 (3000 level or above)

Required Chemistry Courses:

**General Chemistry**
- 1441 General Chemistry I and Lab
- 1442 General Chemistry II and Lab (Prerequisite: CHEM 1441)

**Organic Chemistry**
- 2321 Organic Chemistry I (Prerequisite: CHEM 1442)
- 2181 Organic Chemistry I Lab (Corequisite: CHEM 2321)
- 2322 Organic Chemistry II (Prerequisite: CHEM 2321)
- 2182 Organic Chemistry II Lab (Corequisite: CHEM 2322)

**Quantitative Chemistry**
- 2335 Quantitative Chemistry (Prerequisite: CHEM 1442)
- 2285 Quantitative Chemistry Lab (Corequisite: CHEM 2335)

**Physical Chemistry**
- 3315 Biophysical Chemistry (Prereq: CHEM 2335, 8 hours physics)
- 3175 Biophysical Chemistry Lab (Corequisite: CHEM 3315)

**Inorganic Chemistry**
- 3317 Inorganic Chemistry I (Corequisite: CHEM 2322)
- 4318 Inorganic Chemistry II (Prerequisite: CHEM 2322)

**Biochemistry**
- 4311 General Biochemistry I (Prerequisite: CHEM 2322)
- 4242 Lab Techniques in Biochemistry (Prereq: CHEM 4311)
- 4312 General Biochemistry II (Prerequisite: CHEM 4311)
- 4314 Enzymology (Prerequisite: CHEM 4311)
- 4313 Metabolism and Regulation (Prerequisite: CHEM 4312)
- 4316 Biochemical Genetics (Prerequisite: CHEM 4312)

**Other Chemistry**
- 4461 Instrumental Analysis (Prerequisite: CHEM 2285, 2335)

Other Required Courses:

**English**
- 1301 Critical Thinking, Reading, and Writing I
- 1302 Critical Thinking, Reading, and Writing II

**Literature**
- Three hours of English or foreign language literature.

**Liberal Arts Electives**
- Three hours at the 2000 level or above of literature, or social and cultural studies from the College of Liberal Arts, or fine arts, or philosophy, or technical writing.

**Social/Cultural Studies**
- Three hours of an approved course. See the attached list.

**Fine Arts**
- Three hours from architecture, art, dance, music or theater arts. See the attached list.

**Political Science**
- 2311 Government of the United States
- 2312 State and Local Government

**History**
- 1311 History of the United States (→1865)
- 1312 History of the United States (1865→)

**Computer Science**
- One class from: CSE 1301, 1306, 1310, or GEOL 1391) or
- A passing score on the university Computer Proficiency Test (CPT).

**Mathematics**
- 1323 Pre-Calculus
- 1426 Calculus I
- 2425 Calculus II

**Physics**
- 1441 General College Physics I (Prerequisite: high school trig.)
- 1442 General College Physics II (Prerequisite: PHYS 1441)

**Biology**
- 1441 Cell and Molecular Biology
- 1442 Structure and Function of Organisms
- 3444 General Microbiology

**Six hours from BIOL 3312, 3315, 3333, 3345**

**Electives**
- Sufficient to reach 120 total credit hours
- Sufficient to reach 36 advanced hours (3000 level or above)

Undergraduate Advisor:

Jacob McKeever 300E Science Hall (SH)
(817) 272-2750
jacobm@uta.edu

JM updated 07/11/11
Math and Science Pre- and Corequisite Flow Chart (All courses are offered in fall, summer and spring unless otherwise noted.)

Horizontal arrow: Corequisite  
May be taken prior to or concurrently with the course.

Vertical or Angled arrow: Prerequisite  
Must be taken prior to the course.

Suggested Course Sequence*

**First Year**  
**Fall (14 credit hours)**
- CHEM 1441
- MATH 1323
- BIOL 1441
- ENGL 1301

**Spring (14 credit hours)**
- CHEM 1442
- MATH 1426
- ENGL 1302
- Fine Arts 3hrs

**Second Year**  
**Fall (15 credit hours)**
- CHEM 2321
- CHEM 2181
- MATH 2425
- PHYS 1441
- Literature 3hrs

**Spring (17 credit hours)**
- CHEM 2322
- CHEM 2182
- CHEM 2335
- CHEM 2285
- BIOL 1442
- PHYS 1442

**Third Year**  
**Fall (16 credit hours)**
- CHEM 3315
- CHEM 3175
- CHEM 4311
- BIOL 3312/3315/3333/3345
- POLS 2311
- Liberal Arts Elective

**Spring (14 credit hours)**
- CHEM 4312
- CHEM 4242
- BIOL 3312/3315/3333/3345
- POLS 2312
- Social/Cultural Studies

**Fourth Year**  
**Fall (16 credit hours)**
- CHEM 4313 or 4316
- CHEM 4461
- HIST 1311
- Literature
- Elective (3 hrs; 3000 or higher)

**Spring (15 credit hours)**
- CHEM 4314
- CHEM 3317
- BIOL 3345
- HIST 1312
- Fine Arts

*Please consult the University of Texas at Arlington Undergraduate Catalog for a thorough explanation of degree requirements.*