BS in Chemistry

American Chemical Society Accredited

2018 – 2019 Catalog

Total Credit Hours Required: 120

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

Required Chemistry Courses

**General Chemistry**
- 1341/1181 General Chemistry I and Lab
- 1342/1182 General Chemistry II and Lab (Prereq: CHEM 1341/1181)

**Organic Chemistry**
- 2321 Organic Chemistry I (Prereq: CHEM 1342/1182)
- 2343 Synthesis and Analysis Lab I (Coreq: CHEM 2321/2335)
- 2322 Organic Chemistry II (Prereq: CHEM 2321/2343)
- 2144 Synthesis and Analysis Lab II (Coreq: CHEM 2322)

**Quantitative Chemistry**
- 2335 Quantitative Chemistry (Prereq: CHEM 1342/1182, Precal)

**Physical Chemistry**
- 3321 Physical Chemistry I (Prereq: CHEM 2335, 8 hours physics, MATH 2326)  
  (Concurrent: MATH 3319 encouraged)
- 3181 Physical Chemistry I Lab (Coreq: CHEM 3321)
- 3322 Physical Chemistry II (Prereq: CHEM 2335, 8 hours of physics, MATH 2326)
- 3182 Physical Chemistry II Lab (Coreq: CHEM 3322)

**Inorganic Chemistry**
- 3317 Inorganic Chemistry I (Pre/Coreq: CHEM 2322)
- 4318 Inorganic Chemistry II (Prereq: CHEM 2322)

**Biochemistry**
- 4311 Biochemistry I (Prereq: CHEM 2322)

**Other Chemistry**
- 4101 Seminar in Chemistry (Prereq: Senior standing in chemistry)
- 4461 Instrumental Analysis (Prereq: CHEM 2335, 2343, Senior standing in chemistry)
- 4346 Advanced Synthetic Methods (Prereq: CHEM 2144, 2322, 3317/4318)
- 3 hours of 3000 level or above (must be pre-approved)

Other Required Courses

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

**Language, Philosophy, and Culture**
- 3 hours of an approved course (see Catalog)

**Social and Behavioral Sciences**
- 3 hours of an approved course (see Catalog)

**Creative Arts**
- 3 hours of an approved course (see Catalog)

**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→)

**Foundational Component Area**
- 3 hours of an approved course (see Catalog)

**Mathematics**
- 1426 Calculus I
- 2425 Calculus II
- 2326 Calculus III
- 3319 Differential Equations (3318 is also accepted)

**Physics**
- 1443 General Technical Physics I (Prereq: MATH 1426)
- 1444 General Technical Physics II (Pre/Coreq: MATH 2425)
- 3 hours at 3000 level or above (3313 recommended)

**Other Natural Science**
- 6-8 hours of biology or 6-8 hours of geology

**Freshman Requirement**
- UNIV 1131 Freshman Interest Group

**Electives**
- Sufficient to reach 120 total credit hours
- Sufficient to reach 36 advanced hours

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**Suggested Course Sequence**

**First Year:**
- Fall - 15-16 credit hours
  - CHEM 1341/1181
  - MATH 1426
  - ENGL 1301
  - BIOL 1441 or GEOL 1301
  - UNIV 1131
- Spring – 14-15 credit hours
  - CHEM 1342/1182
  - MATH 2425
  - ENGL 1302
  - BIOL 1442 or GEOL 1302

**Second Year:**
- Fall – 16 credit hours
  - MATH 2326
  - PHYS 1443
  - CHEM 2321,2335, and 2343
- Spring – 14 credit hours
  - MATH 3318 or 3319
  - PHYS 1444
  - Chem 2322 and Chem 2144
  - Language, Philosophy & Culture

**Third Year:**
- Fall – 16 credit hours
  - CHEM 3321 and 3181
  - CHEM 3317
  - PHYS 3313
  - POLS 2311
  - Social and Behavioral Sciences
- Spring - 16 credit hours
  - CHEM 4318
  - Creative Arts
  - POLS 2312
  - CHEM 3322 and 3182
  - Foundational Component Area

**Fourth Year:**
- Fall – 14 credit hours
  - CHEM 4311
  - CHEM 4101
  - CHEM 4461
  - HIST 1311
  - Electives
- Spring – 15 credit hours
  - CHEM 4346
  - CHEM 3000 or 4000
  - HIST 1312
  - Electives

*Minimum GPA Required: 2.25 in CHEM, 2.25 in COS, and 2.25 Overall.*

**NOTE:** For a thorough explanation of degree requirements please consult the Undergraduate Catalog.