Sample Schedule for Bachelor of Arts in Biochemistry

| Fall 1 | | UD | Spring 1 | Cr | UD |
|--|-----|----|--|----|----|
| \$ CHEM 161/161L (DP/DY) | 4 | | \$ CHEM 162/162L | 4 | |
| \$ BIOL 171/171L (or 172/172L) (DB) | 4 | | \$ BIOL 172/172L (or 171/171L) | 4 | |
| \$ MATH 215 / 241 / 251A (FQ) | 4 | | \$ MATH 242 / 252A | 4 | |
| FW | 3 | | FG-A (or B or C) | 3 | |
| | | | | | |
| | 15 | 0 | | 15 | 0 |
| Fall 2 | Cr | UD | Spring 2 | Cr | UD |
| \$ CHEM 272/272L | 5 | | \$ CHEM 273/273L | 4 | |
| FG-B (or A or C) | 3 | | Elective | 3 | |
| HSL 101 | 3 | | HSL 102 | 3 | |
| DS | 3 | | DA (or DH or DL) | 3 | |
| | | | DS | 3 | |
| | 14 | 0 | | 16 | 0 |
| Fall 3 | | UD | Spring 3 | Cr | UD |
| CHEM 372 | 3 | 3 | \$ CHEM 274/274L | 5 | |
| \$ BIOL 275/275L | | | \$ PHYS 272/272L | 4 | |
| \$ PHYS 170/170L | | | HSL 202 | 3 | |
| HSL 201 | | | DA (or DH or DL) | 3 | |
| | | | | | |
| | 15 | 3 | | 15 | 0 |
| Fall 4 | Cr | UD | Spring 4 | Cr | UD |
| Major Elective | 3 | 3 | CHEM 361 | 3 | 3 |
| Major Elective w/ Lab | 5 | 5 | BIOL 402 | 4 | 4 |
| UD Elective | 3 | 3 | Major Elective | 3 | 3 |
| Elective | 3 | | UD Elective | 3 | 3 |
| | | | Elective | 3 | |
| | 14 | 11 | | 16 | 13 |
| Total credits after 8 semesters | 120 | 27 | Cr = credit hours for course(s) | | |
| | .20 | ~ | UD = upper division (300+) | | |

Major and major-related requirements for the B.A. in Biochemistry are noted in **bold.**

Major Electives: Complete a minimum of 11 credits, including 1 (one) laboratory course, numbered at the 300-level or above. Course must be from CHEM, BIOL, MICR, MBBE, or ZOOL. (refer to the "SUGGESTED Major Electives" page)

\$ These courses are usually offered in the summer.

Students must incorporate all focus requirements (ETH,HAP,OC,WI) into this plan.

This sample four-year plan must be used in conjunction with your Arts & Sciences College Program Requirements sheet as all requirements for a B.S. degree (e.g., focus requirements) are not included.

Students may be able to double-dip some requirements.

Actual credit counts vary depending on registration. Check with your advisor as course numbers/credits/prerequisites may change.

updated 02.20.2019

| SUGGESTED Major Electives | | | Credits | Credits |
|---|---|----------------|---------|---------|
| Chemical Sciences | Prerequisites: | Offered in: | Lecture | Lab |
| CHEM 399: Research | | F, S, SS | | |
| CHEM 351: Physical Chem I | CHEM 274, 274L, PHYS 272, PHYS 272L, and MATH 243 or MATH 253A | F | 3 | |
| CHEM 352: Physical Chem II | CHEM 351 | S | 3 | |
| CHEM 352L: Physico-Chemical Measurements | CHEM 274L, 351, and 352 (or concurrent) | S | | 2 |
| CHEM 425/425L: Synthesis - Inorganic | CHEM 351 (or concurrent) or 361 (or concurrent) | F | 3 | 2 |
| CHEM 427: Advanced Inorganic | C (not C-) in CHEM 425 | S | 3 | |
| CHEM 445/445L: Synthesis - Organic | C (not C-) or better in CHEM 273/273L | S | 3 | 2 |
| Biological Sciences | Prerequisites: | Offered in: | Lecture | Lab |
| BIOL 375/375L: Genetics | BIOL 275, 275L | S | 3 | 2 |
| BIOL 401: Molecular Biotechnology | C (not C-) or better in BIOL 275/275L | S | 3 | |
| BIOL 407: Molecular Cell Biology I | C (not C-) or better in BIOL 275/275L and CHEM 273 | F | 3 | |
| BIOL 408: Molecular Cell Biology II | C (not C-) or better in 407; or consent | S | 3 | |
| BIOL 483: Bioinformatics | BIOL 171 | S | 3 | |
| MBBE 412: Environmental Biochemisty | CHEM 152 or CHEM 272, and CHEM 162 or CHEM 171 | Irreg (Spring) | 3 | |
| MICR 351/351L: Biology of Microorganisms | BIOL 171 or equivalent, CHEM 272/272L; or consent. Co-requisite: 351L. | F, S, SS | 3 | 2 |
| MICR 431/431L: Microbial Physiology | MICR 351 | S | 3 | 2 |
| MICR 461/461L: Immunology | MICRO 351 or BIOL 172; or consent. Recommended: BIOL 275/275L. | F | 3 | 2 |
| MICR 463/463L: Microbiology of Pathogens | MICRO 351 and MICRO 461; or consent. Co-requisite: MICRO 463L or consent. | S | 3 | 2 |
| MICR 475/475L: Bacterial Genetics | MICRO 351 or BIOL 275 | F | 3 | 2 |
| MICR 490/490L: Virology | MICRO 351 or BIOL 275 | F | 3 | 2 |
| ZOOL 430/430L: Animal Physiology | BIOL 275, 275L | S | 3 | 2 |
| ZOOL 442: Introduction to Neuroscience | BIOL 275 | F | 3 | |
| PHYL 301/301L: Human Anatomy & Physiology | Biol 171, 172, Chem 161 | F | 4 | 1 |
| PHYL 302/302L: Human Anatomy & Physiology | PHYL 301/301L | S | 4 | 1 |

WI in Biochem

Biol 171L

updated 01/25/2018

| | BIOCHEMISTRY COURSES | | | | | | |
|---|---|-------------|--|--|--|--|--|
| Course | Prerequisites needed to register for this course: | Offered in: | | | | | |
| CHEM 161 | Successful completion of placement exam, C or better in Chem 131 or 151, or consent | | | | | | |
| CHEM 161L | CHEM 161 (or concurrent) | F, S, SS | | | | | |
| CHEM 162 | C (not C-) or better in CHEM 161 | F, S, SS | | | | | |
| CHEM 162L | CHEM 161L and 162 (or concurrent) | F, S, SS | | | | | |
| CHEM 272 | C (not C-) or better in CHEM 162 or 171 or 181A | F, S, SS | | | | | |
| CHEM 272L | C (not C-) or better in CHEM 162L or 171L, or 181L; C (not C-) or better in CHEM 272 (or concurrent) | F, S, SS | | | | | |
| CHEM 273 | C (not C-) or better in CHEM 272 | F, S, SS | | | | | |
| CHEM 273L | CHEM 272L and 273 (or concurrent) | F, S, SS | | | | | |
| CHEM 274 | C (not C-) or better in CHEM 162 or 171 or 181A; C (not C-) or better in MATH 215 or 241 or 251A | S, SS | | | | | |
| CHEM 274L | C (not C-) or better CHEM 162L or 171L or 181L; C (not C-) or better in 274 (or concurrent) | S, SS | | | | | |
| CHEM 361 | C (not C-) or better in CHEM 162, PHYS 170, and MATH 242 or 252A | S | | | | | |
| CHEM 372 | C (not C-) or better in CHEM 273, or graduate standing w/consent, or department approval | F | | | | | |
| CHEM 380 | CHEM 274 (or concurrent) | S | | | | | |
| CHEM 462 | C (not C-) or better in CHEM 361 and 372; C (not C-) or better in BIOL 402 | S | | | | | |
| CHEM 463L | C (not C-) in CHEM 274L, CHEM 372, and BIOL 275L; BIOL 402 (or concurrent) | F | | | | | |
| BIOL 171 | C (not C-) in CHEM 131 (or concurrent),CHEM 151 (or concurrent),CHEM 161 (or concurrent),CHEM 171 (or concurrent), or CHEM 181A (or concurrent), or consent. Co-req:171L | | | | | | |
| BIOL 171L | Co-req: BIOL 171 | F, S, SS | | | | | |
| BIOL 172 | C (not C-) in CHEM 131 (or concurrent),CHEM 151 (or concurrent),CHEM 161 (or concurrent),CHEM 171 (or concurrent), or CHEM 181A (or concurrent), or consent. Co-req: 172L | F, S, SS | | | | | |
| BIOL 172L | BIOL 172 (corequisite) | F, S, SS | | | | | |
| BIOL 275 | C or better in BIOL 171/171L, C or better in CHEM 272, or consent | F, SS | | | | | |
| BIOL 275L | C or better in BIOL 171/171L, C or better in CHEM 272, or consent | F, SS | | | | | |
| BIOL 402 | C or better in BIOL 275/275L; C or better in CHEM 273, or consent | F, S, SS | | | | | |
| Check the catalog for chemistry elective courses that are not listed above. | | | | | | | |
| Related Req | uirements (including prerequisite courses) | | | | | | |
| MATH 241 | C or better in MATH 140 or 215, or assessment exam | F, S, SS | | | | | |
| MATH 242 | C or better in MATH 241 or 251A, or grade of B or better in MATH 215 | F, S, SS | | | | | |
| PHYS 170 | MATH 242 or 252A (either course may be concurrent) | F, S, SS | | | | | |
| PHYS 170L | PHYS 170 or 170A (either course may be concurrent) | F, S, SS | | | | | |
| PHYS 272 | PHYS 151 or 170; and MATH 242 or 252A (MATH 216 substitutable with consent) | F, S, SS | | | | | |
| PHYS 272L | PHYS 151L or 170L; PHYS 272 (or concurrent) or 272A (or concurrent) | F, S, SS | | | | | |

Tentative semesters when courses are offered: $\mathbf{F} = \text{Fall}$; $\mathbf{S} = \text{Spring}$; $\mathbf{SS} = \text{Summer}$