

MINOR IN BIOCHEMISTRY

For UA Online and Distance Students



THE UNIVERSITY OF ARIZONA
COLLEGE OF SCIENCE
COLLEGE OF MEDICINE TUCSON

Chemistry
& Biochemistry

MINOR REQUIREMENTS

- The minor requires 6 unique units that cannot be used to satisfy any other major or minor within the same degree.
 - Each department has their own unique double dipping policy. Check with your major advisor regarding your department's policy.
 - Some double dipping policies may require you to take additional electives.
 - NSC 475 cannot be shared as an upper division elective for the NSC degree.
- Courses taken elsewhere must be evaluated for equivalency prior to meeting minor requirements.
- Visit <https://transfercredit.arizona.edu/> to check the transfer credit guide for prior evaluation of course(s) or to submit new course syllabi for evaluation.
- Courses in **BOLD** are offered through UA online.
- Total units required: 24
- Upper division units required: 9

REQUIRED INTRODUCTORY COURSES

General Chemistry

____ CHEM 152 or **CHEM 142 & 146**

Introductory Biology

____ **MCB 181R** ____ **MCB 181L**

Organic Chemistry

____ **CHEM 241A** (3) ____ CHEM 243A* (1) ____ **CHEM 241B** (3)

*CHEM243A (lab) is not available online. If taken elsewhere, prior evaluation for equivalency is required.

BIOCHEMISTRY CORE

First Semester Biochemistry (Students must complete all pre-requisites prior to enrolling)

____ **BIOC 384** or BIOC 462A

Second Semester Biochemistry (Students must complete all pre-requisites prior to enrolling)

____ **BIOC 385** or BIOC 462B

Life Science Elective (Complete 3 units of 300-400 level coursework from the list or as pre-approved by a CBC advisor.)

____ **Biochemistry Elective** (See list of options on second page. Courses in **BOLD** are offered through UA online.)

BIOCHEMISTRY ELECTIVE OPTIONS

- ___ **BIOS 376 (3) Introduction to Biostatistics**
- ___ BME 486 (3) Biomaterial-Tissue Interactions
- ___ CHEE 477R (3) Microbiology for Engineers
- ___ CHEM 405A (1) Basic Lab Safety
- ___ CHEM 405B (1) Advanced Lab Safety
- ___ CHEM 405C (1) Chemical Hygiene and Regulations
- ___ CHEM 450 (3) Synthetic and Mechanistic Organic Chem
- ___ **ECOL 320 or 320H (4/5) Genetics**
- ___ **ECOL 326 (3) Genomics**
- ___ **ECOL 346 (4) Bioinformatics**
- ___ ENVS 474 (4) Aquatic Plants and the Environment
- ___ ENVS 477 (3) Principles of Ecotoxicology
- ___ IMB 401 (4) Medical Microbiology and Immunology
- ___ MATH 363 (3) Intro to Statistical Methods
- ___ MCB 304 (4-5) Molecular Genetics
- ___ MCB 325 (3-4) The Biology of Cancer
- ___ MCB 340 (3) Introduction to Biotechnology
- ___ **MCB 410 (3-4) Cell Biology**
- ___ MCB 411 (3-4) Molecular Biology
- ___ MCB 425 (3) Cancer Discoveries
- ___ MCB 480 (3) Intro to Systems Biology
- ___ MIC 328R (3) Microbial Physiology
- ___ MCB416A (3) Bioinformatics & Functional Genomic Analysis
- ___ MIC 419 (4) Immunology
- ___ MIC 452 (3) Antibiotics – A Biological Perspective
- ___ **MCB/NSC 408 (3) Nutritional Biology**
- ___ **NSC 475 (3) Nutrigenomics for the Study of Disease.... (cannot be shared with NSC degree)**
- ___ NSCS 307 (3-4) Cellular Neurophysiology
- ___ NROS 310 (3-4) Molecular and Cellular Biology of Neurons
- ___ NROS 430 (3) Neurogenetics
- ___ PCOL 410 (5) Medicinal Chemistry
- ___ PHCL 412 (3) Intro. to Pharmacology
- ___ PHCL 445 (3) Drugs of Abuse
- ___ PHYS 431 (3) Molecular Biophysics
- ___ PLP 428R (3) Microbial Genetics
- ___ PLS 312 (4) Animal and Plant Genetics
- ___ PLS 340 (3) Intro. to Biotechnology
- ___ PLS 359 (3) Plant Cell Structure and Function
- ___ PLS 360 (3) Plant Growth and Physiology
- ___ PLS 448a (3) Plant Biochemistry and Metabolic Engineering
- ___ **PSIO 380 (4) Fundamentals of Human Physiology**
- ___ PSIO 404 (3) Advanced Topics in Cellular Physiology
- ___ PSIO 420 (3) Exercise and Environmental Physiology
- ___ PSIO 431 (3) Physiology of the Immune System
- ___ PSIO 484 (3) Cardiovascular Muscle Biology and Disease
- ___ PSIO 465 (3) Neurophysiology

Course offerings are subject to change. Please consult the Schedule of Classes for specific semester course information