

BIOCHEMISTRY FOR MEDICAL AND HEALTH PROFESSIONS

Designed for students pursuing careers in medicine, dentistry, pharmacy, optometry, physical therapy, nursing, or related health professions, this minor provides focused preparation for entry into professional schools. The course sequence introduces MCAT- and DAT-relevant content in a scaffolded order—beginning with biochemistry, followed by pharmacology, and culminating in systems-based disease mechanisms. Students aiming to become physicians (MD or DO), dentists, pharmacists, physician assistants, optometrists, physical therapists, nurse practitioners, lab technicians, or medical science liaisons will find this pathway especially relevant. Completing this minor helps demonstrate readiness for health professions programs through mastery of core biochemical concepts and their clinical applications. This minor complements majors in Biology, Chemistry, Health and Human Services, and related fields.

Minor or Integrative Studies Concentration Requirements

A minor or concentration in Biochemistry for Medical & Health Professions consists of 12 credit hours of approved upper-level courses.

Code	Title	Credit Hours
Required courses for the Minor or Concentration		
BCHM/BIOL/ CHEM 370	Principles of Biochemistry ^{1,2}	4
BCHM/BIOL 404	Mechanisms of Chronic Human Disease ³	4
BCHM 480	Biochemical Pharmacology	4
Total Credit Hours		12

¹ BIOL 140 and CHEM 226 are prerequisites and must be completed prior to enrollment in this course. BCHM 370 must be taken first. BCHM 404 and BCHM 480 may be taken in either order afterward.

² BCHM 470 **and** BCHM 471 may be used as alternatives to BCHM 370.

³ Students must be of Junior or Senior standing to enroll in BCHM 404.

NOTES:

- MCAT-Relevant Content Coverage:** This minor is designed to help students prepare for the MCAT by covering several key topics. Enzyme kinetics and metabolism are covered in BCHM 370, while hormone signaling and additional metabolic pathways are addressed in BCHM 404. BCHM 480 introduces students to drug mechanisms relevant to pharmacology and therapeutics.
 - BCHM 210 – Biochemistry Laboratory Techniques:** Highly recommended if you want hands-on practice with techniques like SDS-PAGE, ELISA, and PCR, commonly referenced on the MCAT and expected in research/clinical settings. This course is optional and does not count toward the 12-credit minor.
- A minimum GPA of 2.0 is required for the minor/concentration. The GPA is based on all coursework required within the minor (excluding prerequisites).
 - The use of transfer credit, field placements, internships, seminars, S/E graded courses, and independent study/research courses is limited to

3 credits in a 12 credit hour minor/concentration and 6 credits in a 15 credit hour and above minor/concentration.

- Courses within a minor/concentration cannot be taken as Pass/Fail (P/F).
- Minors requiring 12 credits may share one course with a major. Minors requiring 15 credits or more may share two courses with a major. This does not apply to concentrations for the Integrative Studies major.