

## **BIOCHEMISTRY (BCH)**

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Biochemistry is an investigation of the chemical composition of living matter and the molecular nature of the processes of living systems. Biochemists gain mathematical, chemical, and biological understanding of the pathways of energy throughout the molecules of the cell. In these studies, students explore the intricate design of God's creatures. Motivated by the Holy Spirit, one cannot help but exclaim with the Psalmist, "I praise you because I am fearfully and wonderfully made" (Ps. 139:14).

The biochemistry major is designed to accommodate students planning careers in which a strong physical science component is important and to prepare the students for graduate study or employment in a variety of disciplines.

The biochemistry course requirements are comprised of chemistry (CHE) and biology (BIO) courses, along with collateral requirements in math and physics.

A student majoring in Biochemistry may not also major or minor in Biology or Chemistry.

### **COURSE OF STUDY**

- A. A major in biochemistry consists of a minimum of 55 credits of biology and chemistry as follows:
1. General Chemistry (10 cr.): CHE 161, 162, 168, 169
  2. Organic Chemistry (8 cr.): CHE 221, 222, 228
  3. Quantitative Analysis (3 cr.): CHE 210
  4. Physical Chemistry (3 cr.): CHE 341
  5. Biochemistry (4 cr.): CHE 350, 351, 358
  6. General Biology (8 cr.): BIO 201, 202
  7. Cell Biology (4 cr.): BIO 331
  8. Genetics (4 cr.): BIO 360
  9. Molecular Biology (4 cr.): BIO 433
  10. Research Methods (6 cr.): BIO 401, 402

Electives (select at least 2 courses from the following departments; minimum of 6 credits)

Biology; 300 or above

Chemistry; 300 or above

Computer Science; 300 or above

Mathematics; 223 or above

Physics; 300 or above

- B. Collateral Requirements (18 credits):
1. Mathematics (8 cr.): MAT 221 and 222.
  2. Physics (10 cr.): PHY 201 and 202.