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B.S. in Biochemistry

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Objectives

The Department of Biology offers a program leading to the Bachelor of Science with a major in biochemistry. The biochemistry program provides students with a basic understanding of living systems that emphasizes the molecular and cellular aspects of biology. New research space in the William F. Walsh Science Center and equipment for experimentation in molecular and cellular biology provide research opportunities for students during their junior and senior years. The final year of study includes independent laboratory research.

Advances in the area of molecular and cellular biology have led to the expansion of career opportunities with small biotechnology companies and larger pharmaceutical companies. The biochemistry program will be of special interest to students with a strong science and mathematics background who are preparing for graduate school, health-care professional programs, pharmacy, forensic science, and biotechnology.

Opportunities

A variety of postgraduate options are available to biochemistry majors. Students may proceed to graduate school, research or teaching, and the program also provides the requirements necessary to transition to medical, dental, veterinary and other health-related programs.

Approximately 90 percent of SBU biology graduates advance to postgraduate study or careers in the field. In addition, approximately 90 percent of pre-health care students succeed in entering medical school or other health care programs.

Curriculum

• The BS in Biochemistry combines coursework in molecular and cellular biology with a strong background in chemistry, including courses relating chemical principles directly to biological systems.

• Classes are small (averaging approximately 24 students), and laboratory sections in upper-level courses are taught by the same faculty who teach the lecture sections, in keeping with the university's commitment to personalized education.

• All biochemistry majors conduct mentored independent research projects in their senior year, working with individual faculty researchers.

• In the senior-year biochemistry seminar, students explore current trends in the field through discussion of recent research articles and presentation of their own research projects.