



B.S. in Biochemistry

Objectives

The Department of Biology offers a program leading to the Bachelor of Science with a major in biochemistry. The biochemistry program provides every student with faculty-mentored, hands-on research experience with equipment suited for modern biochemistry, cell biology and molecular genetics in the William F. Walsh Science Center, a common setup found in graduate school. The program is focused on supporting students to gain skills and competencies necessary for a variety of career paths, and a solid understanding of biochemical and molecular aspects of biological systems.

The biochemistry program is accredited by the American Society for Biochemistry and Molecular Biology (ASBMB), which adds higher value and national recognition to the degree. Students have established an ASBMB Student Chapter to put their learning into action to bring the joy of science to K-12 schools and the wider community.

Career Opportunities

With the multidisciplinary/interdisciplinary training and authentic research experience offered in the program, students become and stay competitive when proceeding to graduate school, health professional school, industrial settings and teaching.

More than 90 percent of SBU biochemistry graduates advance to postgraduate study or careers related to biochemistry. Our graduates have gone on to prestigious programs, including the M.D. + Ph.D. program at SUNY Upstate Medical University; Ph.D. programs at Duke University, Johns Hopkins University, Michigan State University and University at Buffalo; the M.D. program at George Washington University; the Pharm.D.

program at St. John Fisher College; and the research lab at Catalent Pharma Solution.

Curriculum

- The B.S. in biochemistry offers all coursework commonly required in the field of biochemistry. In addition, students have the flexibility to pursue their passion in biology, chemistry and/or mathematics by taking a suite of specialty courses as their math & science electives.
- Classes are small (averaging approximately 20 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.

Research Opportunities

Dr. Arnold T. Borer Summer Research Program:

The Department of Biology offers summer research opportunities in the areas of cellular and molecular biology. This program, supported by the Dr. Arnold T. Borer Summer Research Endowment, provides selected students with a stipend, free room and board, and a travel allowance.

John L. & Léone E. Worden Memorial Award:

John Worden earned a Ph.D. in physiology from St. Bonaventure University and taught here from



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1933-1973, serving as professor of biology for most of that time. He was also chair of the department from 1937-1947 and acting dean of the graduate school from 1943-1945. This award itself is a distinction, as only the top juniors in the biology and biochemistry programs are invited to submit an application. One Worden Award of \$1,200 is given each year to support a mentored research project in the senior year.

What Our Graduates Say:

“The biochemistry program at St. Bonaventure lets students work directly and intimately with professors in their research. This allows students and professors to develop a close and special relationship that is unique to St. Bonaventure.

“By being able to work closely with Dr. Zhang, I was able to experience research firsthand and to realize it is something that piques my interest. In the lab, I applied the concepts I learned throughout my schooling in real-life applications.

“Because of this research opportunity at St. Bonaventure, I became more interested in pursuing a career in the research field.”

Jordan Powers, Class of 2018

*Ph.D. candidate, University Program
in Genetics & Genomics, Duke University*

“My experience in the biochemistry program at St. Bonaventure University helped shape me as a scientist and inspired in me a love for research that has opened countless doors for me.

“The one-on-one attention I received from professors helped me learn to design and complete research projects. At the same time, they also afforded me enough independence to allow me to learn to troubleshoot and learn from my mistakes. I

was able to build a relationship with faculty members and felt that they truly cared about my success, both in and out of the classroom.

“Thanks to the biochemistry program, I was well-prepared for both the medical curriculum and the research requirements in the M.D./Ph.D. program I joined after graduation.”

Kyle Alpha, Class of 2014

*MD/Ph.D. candidate
SUNY Upstate Medical University*