

Welcome to Biochemistry!

Major Overview:

The biochemistry program at Binghamton University represents the joint effort of the biological sciences and chemistry departments. The program attempts to unite those aspects of biology and chemistry relevant to the sub-cellular study of the life process.

The core biochemistry courses are biochemistry (+laboratory), molecular biology (+laboratory), biophysical chemistry and biochemistry senior seminar. Other required courses in mathematics, physics, biology and chemistry provide the necessary background for the study of these inter-disciplinary subjects. Since biochemistry is primarily a laboratory science, the curriculum emphasizes modern laboratory techniques and encourages students to participate in independent biochemical laboratory research.

Courses:

First term:

- CHEM 107: Intro to Chem Principles I
- MATH 224/225: Calculus I
- BIOL 117: Intro to Organismal and Population Biology *or*
- BIOL 118: Intro to Cell and Molecular Biology

Second term:

- Chem 108: Intro Chem Principles II
- MATH 226/227: Calculus II
- BIO 117 or BIO 118

Post-Graduation:

Students with a biochemistry degree gain the skills necessary to apply biochemical and molecular biological techniques in a variety of potential career fields. These include: pharmacology, medical diagnostics (human and veterinary), biomaterials engineering, bioremediation of pollution, food and drug regulation, improvement

of agricultural plants and livestock through genetic engineering, etc., as well as basic research.

Many entry-level jobs are available to biochemistry graduates in industrial, hospital, governmental and academic laboratories. Biochemistry also provides a foundation for law school (e.g. practicing patent law for a biotechnology company), medical school or business management (e.g. working as an administrator for a biotechnology company).

Additional Resources:

For more resources and information on this major, refer to:

[About biochemistry](http://www.binghamton.edu/biochem/index.html) [http://www.binghamton.edu/biochem/index.html]

[Career Opportunities](http://www.binghamton.edu/biochem/career-opportunities/index.html) [http://www.binghamton.edu/biochem/career-opportunities/index.html]

[Biochemistry degrees](http://www.binghamton.edu:8080/exist9/rest/Bulletin2014-15/xq/biochemistry_ug.xq?_xsl=/db/Bulletin2014-15/xsl/MasterCompose.xsl) [http://www.binghamton.edu:8080/exist9/rest/Bulletin2014-15/xq/biochemistry_ug.xq?_xsl=/db/Bulletin2014-15/xsl/MasterCompose.xsl]

[Honors Program](http://www2.binghamton.edu/biochem/honors.html) [http://www2.binghamton.edu/biochem/honors.html]

For student organizations and social involvement options refer to:

[Student groups](http://binghamtonsa.org/executive-vp/current-student-groups/) [http://binghamtonsa.org/executive-vp/current-student-groups/]

[Biochemistry Club e-mail](mailto:biochemistry@binghamtonsa.org) [biochemistry@binghamtonsa.org]

[Facebook](https://www.facebook.com/pages/Binghamton-Biochemistry-Club/222500631099253) [https://www.facebook.com/pages/Binghamton-Biochemistry-Club/222500631099253]

Research Areas:

The biochemistry major offers students the opportunity to work with professors in biochemical research. Visit [Honors Program](http://www.binghamton.edu/biochem/honors.html) for more information.

[http://www.binghamton.edu/biochem/honors.html]

For more information on summer programs, internships and research outside of Binghamton University visit, [summer programs](http://www.binghamton.edu/biochem/career-opportunities/internships-research.html).

[http://www.binghamton.edu/biochem/career-opportunities/internships-research.html]

Thank you!

For more information contact the Biochemistry Program at:
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