A Guide to the Biochemistry Major at
Wellesley College

Biochemistry is an interdisciplinary major offered by the Departments of Biological Sciences and Chemistry, allowing students to explore the chemistry of biological systems. This major involves a synergistic approach through courses in Biological Sciences, Chemistry, Math and Physics. Our students benefit from small classes, investigative lab experiences starting in introductory courses, and a vast choice in research collaborations with faculty in Biological Sciences, Chemistry and other departments working in fields of molecular biosciences.

The curriculum encompasses not only biochemistry but also cell and molecular biology and other molecular aspects of the life sciences. Expertise in these fields is central to breakthroughs in DNA technology, drug discovery and design, and molecular approaches to disease. Our program has full accreditation from the American Society of Biochemistry and Molecular Biology (ASBMB), and our students have far outperformed the national average on the ASBMB certification exam. We are proud to also offer a Biochemistry Minor.

Advisory Committee:
Mala Radhakrishnan (CHEM), Director, Melissa Beers (BISC), Michelle Carmell (BISC), Dora Carrico-Moniz (CHEM), Louise Darling (BISC), Don Elmore (CHEM), John Goss (BISC), Mona Hall (CHEM), Vanja Klepac-Ceraj (BISC), Adam Matthews (BISC), Megan Núñez (CHEM), Elizabeth Oakes (CHEM), Kaye Peterman (BISC), Julie Roden (BISC), Mathew Tantama (CHEM), Marc Tetel (NEUR), Jacquelin Woodford (CHEM)

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www.wellesley.edu/biochemistry
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Requirements for the Major

100 Level Requirements:
CHM: Either CHM 105, CHM 105P, CHM 116, or CHM 120.
PHYS: Either PHYS 100, PHYS 104, PHYS 106, PHYS 107, PHYS 108, PHYS 109 or equivalent. This requirement may be satisfied by students passing the physics exemption exam for one of these courses.
MATH: Either MATH 116, MATH 120 or equivalent. This requirement can be satisfied by earning Wellesley credit from the AP Calculus BC exam or placement into MATH 205 or a higher level course by the Department of Mathematics.

200 Level Requirements:
CHM: CHM 205 (if CHM 120 was not taken) and CHM 211.
BIOC: BIOC 219, BIOC 220, and BIOC 223.

300 Level Requirements:
BISC: two 300-level courses from among the following: BISC 311; BISC 314; BISC 316; BISC 318; BISC 328; BISC 329; BISC 333; BISC 334; BISC 335; BISC 336; NEUR 332 or other course if relevant to the major and approved by the director. At least one of the two 300-level courses must be a laboratory course, excluding 350, 355, 360, 365, 370.
BIOC: BIOC 320, BIOC 323, and BIOC 331. BIOC 324 may be used in place of BIOC 323.

We also offer a 7 course Biochemistry Minor for anyone not majoring in Chemistry or Biological Sciences; this can be a great option for someone with an interest in both biochemistry and either the humanities, social sciences, or another science.

For Students by Students
Click HERE for our all new COURSE PLANNING GUIDE -- put together for students by students! And check out what BIOC students are doing on Instagram.

After Wellesley
A major in Biochemistry provides an excellent background for many different career paths. Graduates go on to a variety of graduate schools and health professional schools or into public health, teaching, law, or business. Those wanting to enter directly into the workforce do so in areas such as bio-technology, bioengineering, pharmacology, or clinical chemistry. Alumnae surveys from students who graduated in the years 2014-2017 indicate that within a few years of graduating from Wellesley, roughly 40% of students enroll in either an MD, Dental, Veterinary, or MD/PhD program, another 35% enroll in Ph.D. programs, and others pursue exciting options including Public Health, engineering, or K-12 education.

Student Research
Independent research is highly recommended for majors. One learns science best by doing science. We encourage students to carry out research in collaboration with faculty either during the academic year or in the summer. Research may be advised by any member of the Biochemistry Advisory Committee or by another approved research advisor on or off campus. Overviews of faculty research interests are available on the Biochemistry website, and interested students should contact the relevant faculty member about carrying out research in a particular laboratory. Opportunities exist for work-study eligible students to earn stipends during the semester for doing research.
Summer research is funded through the Science Center by competitive application early in the spring semester. During the academic year, Independent study (BIOC 250, 250H, 350, 350H) for one or more semesters is open to any student. Students interested in completing a Senior thesis should speak with their prospective research advisor. A BIOC 355/365 thesis option is available to all students. A BIOC 360/370 thesis option is for Biochemistry majors with a sufficient GPA in the major and is necessary to earn honors in the major.

www.wellesley.edu/biochemistry