



A Guide to the Biochemistry Major at Wellesley College



2020-2021



The Biochemistry major provides exceptional training for students interested in biochemistry and molecular biology. This major encompasses an interdisciplinary 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 undergraduate research collaborations with faculty in Biological Sciences, Chemistry and other departments working in fields of molecular biosciences.

Advisory Committee

Mala Radhakrishnan (CHEM), Director

Melissa Beers (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)



**For further information about
Biochemistry, please contact:**

Mala Radhakrishnan, Director

(781) 283-2981

mradhagr@wellesley.edu

Administrative Assistant/Grant Coordinators:

Elizabeth Oh

(781) 283-3154

eo101@wellesley.edu

Ann Ross

(781) 283-3153

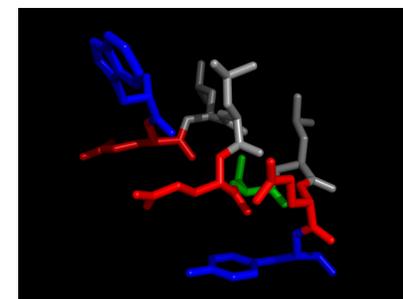
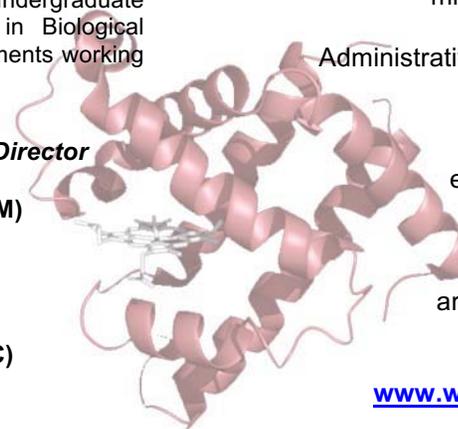
aross5@wellesley.edu

On the web at:

www.wellesley.edu/biochemistry

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Requirements for the Major

BIOC: 219 (Genetics); 220 (Cell Biology); 223 (Fundamentals of Biochemistry); 320 (Advanced Laboratory); 323 (Advanced Biochemistry); 331 (Physical Chemistry). Please note BIOC 324 may be used in place of BIOC 323.

CHEM: a) Both 105/105P and 205, or 116 and 205 or 120 (Introductory Chemistry); b) 211 (Organic Chemistry).

BISC: a) 110 or 112 or 116 (Introductory Cellular and Molecular Biology); b) Two 300-level courses from among the following: 311; 314; 316; 318; 328; 333; 334; 335; 336, NEUR 332 or other course if relevant to the major and approved by the director. At least one 300-level course must be a laboratory course, excluding 350, 355, 360, 365, 370.

PHYS: Either 100, 104, 106, 107, 108, 109 or equivalent.

MATH: Either 116, 120, or equivalent.

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.

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 biotechnology, bioengineering, pharmacology, or clinical chemistry. Alumnae surveys indicate that, **by 10 years after graduation, 97% of Biochemistry majors had enrolled in a graduate or professional degree program.** Approximately one-third of these were medical degrees, over 40% PhD programs, and the remainder master's and other professional degrees.



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. The program encompasses biochemistry, cell and molecular biology, as well as other molecular aspects of the life sciences. Expertise in biochemistry 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 now proud to also offer a **Biochemistry Minor**.



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 member of the Biological Sciences or Chemistry Departments. 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. **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 is open to all students and does not lead to honors in the major. A BIOC 360 /370 is for Biochemistry majors with a sufficient GPA in the major and is the only path to **honors in the major**.

