



Biochemistry

The mission of the Biochemistry program, in conjunction with the liberal arts environment at Washington & Jefferson College, is to develop students into both broadly and specifically educated individuals prepared to perform competitively in a scientific community that is increasingly seeking well-rounded professionals. Drawing upon the strengths of the contributing departments (primarily Biology and Chemistry), the Biochemistry program will provide a selection of courses, an advising structure, research opportunities, instrumentation, and committed faculty to support a rigorous interdisciplinary major in biochemistry.

Major Requirements

Core courses:

BIO 121 Foundations in Cell and Molecular Biology

BIO 131 Foundations in Organismal Biology

BIO 212 Cell Biology

BIO 311 Molecular Biology

CHM 160 Organic Chemistry - Structure and Fundamentals

CHM 170 Organic Chemistry - Reactions and Synthesis

CHM 260 Inorganic Chemistry

CHM 270 Analytical Chemistry

BCH 320 Biophysical Chemistry or

CHM 360 Thermodynamics and Kinetics

BCH 333 Biochemistry

BCH 401 Biochemistry Seminar

MTH 151 Calculus I

PHY 101 Introductory Physics I or
PHY 107 General Physics I

PHY 102 Introductory Physics II or
PHY 108 Intro/General Physics II

Plus any 2.5 courses from:

NSC 300 Experimental Neuroscience

BIO 201 Genetics

BIO 202 Developmental Biology

BIO 235 Animal Physiology

BIO 314 Immunology

BIO 412 Experimental Biology

CHM 320 Intermediate Organic Chemistry

CHM 345 Medicinal Chemistry

CHM 380 Synthesis Laboratory

CHM 385 Chemical Measurements Laboratory

CHM 420 Advanced Organic Chemistry

BCH 500 or BCH 501 Independent Study

A full list of courses and descriptions can be found online in the College catalog.



Program Website

washjeff.edu/biochemistry

Program Director

Nobunaka Matsuno, Ph.D.
nmatsuno@washjeff.edu

Faculty

Candy DeBerry, Ph.D.
cdeberry@washjeff.edu

Michael Leonard, Ph.D.
mleonard@washjeff.edu

Mark Harris
mharris@washjeff.edu

Office of Admission

60 S. Lincoln St.
Washington, PA 15301

admission@washjeff.edu

724-223-6025

Beyond the Classroom

Students have many opportunities for research, internships, conferences, and networking beyond the classroom that give them an advantage to prepare for life after W&J.

Research and Internships

- On-campus Independent Study (fall or spring)
- Summer research internships on-campus and at institutions including: the National Institutes of Health (NIH); University of Texas M.D. Anderson Cancer Center; Princeton University; Cleveland Clinic; University of Wisconsin-Madison; University of California Los Angeles; University of Cologne (Germany); Max F. Perutz Laboratories (Austria); Radboud University (The Netherlands); and the University of Cambridge (England)

Alumni Achievements

- M.D./Ph.D. from University of Miami School of Medicine; pathology resident at Johns Hopkins School of Medicine
- M.D./Ph.D. from University of Pittsburgh School of Medicine; pediatrics resident at UPMC Children's Hospital Pittsburgh
- Post-baccalaureate CRTA fellow at the National Cancer Institute, NIH; Ph.D. candidate in immunology and infectious diseases at Harvard University

Careers

W&J Biochemistry alumni have pursued a wide range of careers in the biomedical sciences and medicine, including:

Research scientist

- Laboratory technician
- Medical doctor
- Veterinarian
- Hospital administrator
- Pharmaceutical sales representative
- College/university professor

