BIOCHEMISTRY AND MOLECULAR BIOPHYSICS, PHD

The Graduate Group in Biochemistry and Molecular Biophysics (BMB) is devoted to the education and training of doctoral students in quantitative, mechanistic and molecular frontiers of biochemistry and biophysics, broadly conceived. The goal is to produce the next generation of scientists, scholars, educators and leaders in biomedical sciences.

To achieve this goal, BMB starts with a strong relationship with the Department of Biochemistry and Biophysics, combined with a world class, diverse faculty of over 90 members from four institutions, the University of Pennsylvania, the Wistar Institute, and the Children's Hospital of Philadelphia. Within the University of Pennsylvania, BMB draws on faculty from the schools of Medicine, Arts and Sciences, Engineering, Dental Medicine, and Veterinary Medicine.

BMB offers interdisciplinary training based on a rigorous core curriculum, combined with laboratory rotations, independent studies, and candidacy exam preparation that provides immersive training in laboratory and research skills to equip the students for their independent dissertation research.

For more information: https://www.med.upenn.edu/bmbgrad/

View the University's Academic Rules for PhD Programs (http://catalog.upenn.edu/pennbook/academic-rules-phd/).

Required Courses

Code	Title	Course Units
Coursework		
BIOM 6000	Cell Biology	
BMB 5080	Macromolecular Biophysics: Principles and Methods	
BMB 5090	Structural and Mechanistic Biochemistry	
BMB 5100	Data Analysis and Scientific Inference	
BMB 7050	Candidacy Exam Preparation Course	
Select four electives		
Research		
BMB 6990	Laboratory Rotation	
BMB 8990	Pre-Dissertation Research	
BMB 9950	Dissertation Research	

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Sample Plan of Study

Code	Title	Course Units
Year 1		
Fall		
BIOM 6000	Cell Biology	
BMB 5080	Macromolecular Biophysics: Principles and Methods	
BMB 6990	Laboratory Rotation	
Elective		
Spring		
BMB 5090	Structural and Mechanistic Biochemistry	
BMB 5100	Data Analysis and Scientific Inference	
BMB 6990	Laboratory Rotation	
Elective		
Summer		
BMB 6990	Laboratory Rotation	
Year 2		
Fall		
BMB 8990	Pre-Dissertation Research	
Elective		
Elective		
Spring		
BMB 8990	Pre-Dissertation Research	
BMB 7050	Candidacy Exam Preparation Course	
Year 3 and Beyond		
BMB 9950	Dissertation Research	