

BIOPHYSICS, M.S.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (<http://guide.wisc.edu/graduate/#policiesandrequirements>), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Accelerated: Accelerated programs are offered at a fast pace that condenses the time to completion. Students are able to complete a program with minimal disruptions to careers and other commitments.

Evening/Weekend: Courses meet on the UW–Madison campus only in evenings and/or on weekends to accommodate typical business schedules. Students have the advantages of face-to-face courses with the flexibility to keep work and other life commitments.

Face-to-Face: Courses typically meet during weekdays on the UW-Madison Campus.

Hybrid: These programs combine face-to-face and online learning formats. Contact the program for more specific information.

Online: These programs are offered 100% online. Some programs may require an on-campus orientation or residency experience, but the courses will be facilitated in an online format.

CURRICULAR REQUIREMENTS

Requirements Detail

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement Half of degree coursework (15 credits out of 30 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<https://registrar.wisc.edu/course-guide> (<https://registrar.wisc.edu/course-guide/>)).

Overall Graduate GPA Requirement 3.00 GPA required.

Other Grade Requirements Any grade of BC or lower will not count toward the Biophysics core course requirement. If a student receives a BC or lower, the student must repeat the course in order to receive a higher grade. The student may also substitute to course for an alternate core course with approval from the Biophysics Steering Committee.

Assessments and Examinations Students take two rounds of exams in order to achieve dissertator status. At the end of students' second year, they are required to take their written preliminary exam. Once this exam is passed, students must take their preliminary exam by the end of their third year.

Language Requirements No language requirements.

REQUIRED COURSES

Students must take the same courses as are required for the biophysics Ph.D.:

Code	Title	Credits
Required by the time oral prelim is taken:		
BIOCHEM/ CHEM 665	Biophysical Chemistry	4
CHEM 668	Biophysical Spectroscopy ¹	2-3

Students must take at least 2 additional classes from different categories from the following list of classes (alternative classes may be substituted with approval from the Biophysics Program Steering Committee):

Structure

BIOCHEM 601 Protein and Enzyme Structure and Function

BIOCHEM 606

BIOCHEM 625 Mechanisms of Action of Vitamins and Minerals

Modeling

CHEM 661 Chemical and Statistical Thermodynamics

MATH/B M I/
BIOCHEM/
BMOLCHEM 609 Mathematical Methods for Systems Biology

Molecular Biology

BIOCHEM/
GENETICS/
MICROBIO 612 Prokaryotic Molecular Biology

BIOCHEM/
GENETICS/
MD GENET 620 Eukaryotic Molecular Biology

Neuroscience

NTP/
NEURODPT 610 Cellular and Molecular Neuroscience

Spectroscopy/Microscopy

B M E/MED PHYS/
PHMCOL-M/
PHYSICS/
RADIOL 619 Microscopy of Life

Additional Courses

BIOCHEM 729 Advanced Topics (Ethics)² 1-3

CHEM/ BIOCHEM 872 990 Seminar ⁴	Selected Topics in Macromolecular and Biophysical Chemistry ³	1-3
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- ¹ Because CHEM 668 Biophysical Spectroscopy is only offered every other year, students will be advised upon joining the program in which semester they must complete the course.
- ² Students are also required to take an ethics course that covers all of the items considered necessary by the NIH for ethical and professional scientific training. It is strongly recommended that students take the ethics course during their first year. The recommended ethics course is: BIOCHEM 729 Advanced Topics. The Biophysics Program also conducts a mandatory ethics refresher seminar for all students that is held at the end of every spring semester.
- ³ Additionally, students are required to participate in seminar courses for the duration of their studies. Initially, all students are required to enroll in CHEM/BIOCHEM 872 Selected Topics in Macromolecular and Biophysical Chemistry for both fall and spring semesters. Once a student has successfully achieved dissertator status, they are eligible to enroll in alternative seminars with permission from the program.
- ⁴ Finally, all students are expected to register for 990 research credits every semester. These are the courses in which students will be conducting their independent research. First semester students will register for 990 research credits in the department of the Biophysics Program Chair, Meyer Jackson. Once a thesis lab is chosen, these credits will be conducted in the thesis advisor's home department.