

# MOLECULAR BIOSCIENCE (PH.D.)

## General Admission for the Ph.D. Program

The doctoral program in Molecular Bioscience follows the general University requirements for admission to graduate studies and admission to the graduate programs in the Department of Biological Sciences. All Ph.D. program applicants are required to submit their GRE scores.

For students in the current M.S. program, credits will be given for courses taken within the Department of Biological Sciences at Seton Hall University with a grade of 3.0 or above that meet the Ph.D. course requirements. A maximum of 30 credits may be accepted towards the Ph.D. program.

For students who have obtained M.S. degrees outside the Department of Biological Sciences at Seton Hall University, courses will be evaluated and a maximum of 30 credits may be accepted towards the Ph.D. program.

## Degree Requirements

The doctoral program consists of two phases: foundation coursework and dissertation research. Between completion of the foundation coursework and the start of research, the doctoral candidate will take a comprehensive qualifying examination and select a dissertation mentor.

Students must complete a total of 72 credits, including 57-59 required credits in coursework (21 credits in required courses, 36-38 credits in thesis and seminar courses) and 13-15 credits of elective courses. The required courses will provide the student with a strong foundation in subject content and training in research techniques. Electives will provide breadth to the students' training in the various subdisciplines of Molecular Bioscience.

Both full-time and part-time students are eligible to enroll in the doctoral program at Seton Hall University. Full time students will carry at least 9 credits per semester in the Fall and Spring semesters.

Completion of the doctoral program must take place within seven years for full-time students and ten years for part-time students.

Students must maintain a minimum 3.0 GPA for all coursework toward the doctoral degree taken at Seton Hall University. Courses with the grade of B- or lower will not be applied towards the total 72-credit requirement. If the course with a B- or lower is a required course, the student must repeat the course with a satisfactory grade of B or better. Students with an overall GPA below 3.0 will be placed on probation for one year to regain acceptable status. The student who is unable to meet these remedial measures or has an overall GPA of 2.0 or below will not continue in the program.

Students must pass a comprehensive or qualifying examination after completion of the 21 credits of required courses with B or above.

Students must present and defend an oral and written doctoral dissertation.

Code	Title	Hours
<b>Required Courses</b>		
BIOL 6113	Biostatistics	3

BIOL 6216	Recombinant DNA Technology	3
BIOL 6231	Molecular Biology	3
BIOL 6333	Cell Culture Techniques	3
BIOL 7226	Signal Transduction	3
ENGL 6414	Scientific and Tech Writing	3
GMHS 7603	Biomedical Ethics-Legal Issues	3

### Required Thesis and Seminars \*

BIOL 9011 & BIOL 9012 & BIOL 9013	Read Molecular Bioscience I and Read Molecular Bioscience II and Read Molecular Bioscience III	6
BIOL 9091 & BIOL 9092 & BIOL 9093	Spec Topics-Biol Res I and Spec Topics-Biol Res II and Spec Topics-Biol Res III	6
BIOL 9201 & BIOL 9202 & BIOL 9203 & BIOL 9204 & BIOL 9205 & BIOL 9206 & BIOL 9207 & BIOL 9208	Biol Seminar PHD Student and Biol Seminar PHD Student II and Biol Seminar PHD Student III and Biology Seminar PHD Student IV and Biol Seminar for PHD Student and Biol Seminar for PHD Student and Biol Seminar Phd Student VII and Biol Seminar Phd Student VIII	8
BIOL 9601 & BIOL 9602 & BIOL 9603 & BIOL 9604 & BIOL 9605 & BIOL 9606	Research for PHD Dissert I and Research for PHD Dissert II and Research PHD Dissert III and Research PHD Dissert IV and Research PHD Dissert V and Research PHD Dissert VI	18

### Electives

Select 13-15 credits of Biology courses. \*\* 13-15

**Total Hours** 72-74

\* Note: Four thesis courses are required for the degree.

\*\*CHEM 6501 General Biochemistry I, CHEM 7512 General Biochemistry II may not be included.