Biology, M.S.

Master of Science

Degree Requirements

• **Credit Hours:** Students are required to complete a minimum of 33 graduate credit hours in Biology at the 400 level or above. Only 12 credit of coursework at the 400 level may be used.

• **Grade Point Average:** Students must earn a minimum overall GPA of a 2.75, and a minimum GPA of 3.00 in coursework applied to their graduate program.

• **Program of Study:** The Program of Study is a written document consisting of two parts: 1) an outline of past, present, and future course work for a student’s graduate career; and 2) a written plan of a student's proposed research project. A written Program of Study must be approved by the student's Masters Advisory Committee.

• **Graduation Requirement:** Students must write and defend a Master’s Thesis. A final oral defense is administered after an original, written thesis has been submitted to and approved by the Advisory Committee. For complete guidelines, please see the graduate student handbook at http://biology.wvu.edu/students/graduate-students/forms-and-policies/.

• **Progress toward completion:** Year 1: Formation of an Advisory Committee and complete the Program of Study. Year 2: submit written Thesis and perform an oral defense. At the beginning of each academic year, students are evaluated by the department to insure timely progress in their degree programs.

• **Additional Requirements:** Students must have a program of study formulated and approved by an Advisory Committee at the end of the second semester of entering the M.S. program. The program of study outlines the coursework to be taken in support of the proposed research. The advisory committee ensures that all of the Department of Biology, Eberly College of Arts and Sciences, and University requirements are met during the course of the student’s program of study.

Curriculum Requirements

Minimum GPA of 3.0 is required.

Biology Coursework at the 400 level or above. * | 18
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Research | 6
BIOL 797 Research (Repeated) | 6
Graduate Professional Development Seminars | 6
BIOL 796 Graduate Seminar (Repeated each Fall) | 6
BMS 700 Scientific Integrity | 6
Professional development courses (2 cr. min) selected with the graduate adviser. | 3
Departmental Seminars | 3
BIOL 794 Seminar | 3
Total Hours | 33

* Excludes BIOL 486, BIOL 490, BIOL 794, BIOL 796, BIOL 797

Major Learning Outcomes

BIOLOGY

The graduate programs in the Department of Biology provide rigorous training in several fields of biology. The central mission of our graduate program is to train the next generation of Biologists for careers in the field, laboratory and several other professional settings that rely on deep expertise in the biological sciences.

Students earning a M.S. in Biology will be able to:

• Explain general biological principles as well as those specific to their research sub-discipline
• Demonstrate familiarity with the literature published within their field
• Independently perform experiments and provide quality data, analysis and interpretation, critical to progress in their research area
• Effectively communicate their research in oral and written formats, including the ability to co-author manuscripts suitable for publication in peer reviewed scientific journals
• Learn and apply the role of ethics in personal and professional behavior
• Learn and apply best laboratory practices (i.e. proper laboratory safety procedures and experimental protocols)