

University of Wisconsin-Milwaukee
Department of Biological Sciences
Master's Degree (Thesis Track) Program Guidelines (rev. 9/2019)

For questions, contact the program either by phone or e-mail.

bioscigrad-list@uwm.edu

414-229-5137

I. PROGRAM BASICS

A. ADMISSION REQUIREMENTS

Upon acceptance to the program, students will be notified of any curricular pre-requisites that must be completed as perceived by their advisor/committee. Extra programmatic requirements (physics, organic chemistry and calculus) will be determined by the student's major professor. All basic requirements must be remedied by the end of the student's first year.

B. GRADUATE SCHOOL REQUIREMENTS

There are a number of general Graduate School regulations and requirement for the Master's Degree that are described on the Graduate School [website](#). The student's program is governed by the rules in the [Graduate School's Academic Policies & Procedures](#) issued the year in which the student enrolled in the graduate program.

C. RESEARCH REQUIREMENT

The Master's degree is a **RESEARCH** degree. The most important requirement is that a student must make an original, publishable contribution to their field of study. M.S. students are encouraged, but not required, to have submitted or published one primary or coauthored manuscript in a peer-reviewed journal before graduation.

D. ANNUAL PROGRESS REPORTS

Students **must** file a signed *Annual Progress Report* **by June 1st every year** of their tenure in the Biological Sciences Graduate Program. The student, major professor and all members of the M.S. Advisory Committee are all required to sign the Report, and all have the opportunity to make comments on the Report. Students must file these yearly Reports with the Biological Sciences Graduate Program Director.

Students who do not file a completed Annual Progress Report in any year are not making satisfactory progress and will become ineligible for departmental aid and University-wide financial aid (RAs, PAs, TAs, Fellowships) and risk dismissal from the Biological Sciences Graduate Program.

II. TIMELINE FOR M.S. PROGRAM

YEAR 1:

- Form M.S. Advisory Committee

- Remedy basic coursework requirements
- Submit *Transfer Credit Evaluation* (Graduate School)
- Complete *Annual Progress Report* (Departmental)

YEAR 2/3:

- Complete coursework
- Complete M.S. Preliminary Examination
- Complete thesis research
- Complete *Annual Progress Report* (Departmental)
- Submit *Application for Graduation* (PAWS)
- Thesis Defense
- Graduation

III. ADVISING

A. MAJOR PROFESSOR

Upon acceptance into the program, the student will be notified of his/her initial advisor. Any questions may be addressed to the advisor or to the Graduate Program Director of the Department of Biological Sciences. A student may change major professors if the advisor assigned initially is not in a research area appropriate for the student. If the decision to change advisors is made, the student must obtain the permission of his/her prospective advisor and submit a *Change of Advisor* form (available in the Graduate Program Office) to the Graduate Program Director for approval. The Graduate School will then be notified of the change.

B. THE M.S. ADVISORY COMMITTEE

1. THE COMPOSITION AND FUNCTION OF THE COMMITTEE

The M.S. Advisory Committee (hereafter called the Committee) plays a major role in the development of a student's program. The Committee must consist of at least three (3) members, including the major professor. At least one (1) committee member must be a voting member of the Department of Biological Sciences. The advisor, major professor or committee chair must be a member of the UWM Graduate Faculty, or in special cases, UWM Category B Research Academic Staff, holding the title of Scientist and recommended by the department or programmatic unit. The Graduate Program Director must approve any non-UWM Committee members. The potential non-UWM Committee member must submit a cover letter and *Curriculum Vitae* to the Graduate Program Director. Teaching Assistant support will be given on a priority basis to graduate students under the direction of voting members of the Biological Sciences Faculty.

While the major professor has primary responsibility for a student's program, the M.S. Advisory Committee will meet with the student to construct a formal plan of required and advised course work. The Committee is also responsible for approval of the student's thesis research proposal. The Committee will administer the preliminary oral examination, reviews the thesis and administers the final thesis defense. The Committee shall meet at least once per year (more often, if necessary) to monitor the student's research and academic progress and must submit the *Annual Progress Report* document once a year signed by the student and M.S. Advisory Committee members. The student's

eligibility for financial aid is contingent upon the filing of this document with the Graduate Program Director by **June 1 each year** (see above.)

2. PROCEDURE FOR ESTABLISHING THE COMMITTEE

Shortly after beginning the first semester, the student and the advisor begin preparing a plan for the complete program of graduate study. The Committee must be established by the end of the first year of enrollment. Consult the proposed Committee members and obtain their consent to serve.

IV. COURSE REQUIREMENTS

A. MINIMUM COURSE REQUIREMENTS

The student, in consultation with the major professor, will determine an initial schedule of courses. A complete plan should be finalized by the end of the first year, after consultation with the M.S. Advisory Committee. Students should attempt to complete their formal courses during the first year.

Thirty (30) credits beyond the Bachelor's degree are required. Specific course requirements are listed below. Additional credits can be from Independent Study, research, or additional graduate coursework. At least 18 credits must be in Biological Sciences courses.

- 12 (of 30) credits must be earned in formal courses and seminars (i.e., not research, colloquium, or independent study)
 - Two (2) seminars are required, to a maximum of four (4) credits.
 - Note: the Bio Sci 934, 935 and 936 "Research Advances" seminars DO NOT count as graduate credit.
- 12 (of 30) credits must be in Research (BIO SCI 990)
- 4 (of 30) credits must be in Colloquium (BIO SCI 900)

A student may transfer graduate-level coursework into their degree program pending approval of the student's advisor and the Graduate Program Director. For graduate-level coursework taken at UWM, up to 12 credits may be eligible for transfer. For graduate-level coursework taken at other institutions, up to 10 credits may be eligible for transfer.

B. GRADES

Continuation in the M.S. program is at the discretion of the Graduate School, the departmental Graduate Committee and the major professor. A 3.0 (4.0 basis) average or better is required in all work taken as a graduate student. Students receiving a grade of less than a "B" in Biological Sciences coursework or an overall GPA < 3.0 will receive a letter of warning from the Graduate Program Director. ***Grades of D or F are unsatisfactory and do not count in meeting degree requirements.*** Poor performance will result in the student's dismissal from the Biological Sciences Graduate Program.

V. M.S. ORAL/PRELIMINARY EXAMINATION

An oral examination is required for the M.S. degree. The M.S. Advisory Committee determines examination content consistent with each student's area of research and academic goals. Students should consult with each Committee member about the areas that he/she plans to cover in the

examination. Typically, students answer questions from each Committee member for 20-30 minutes.

The M.S. Advisory Committee decides whether the student passes, fails or must retake part or all of the examination. The student must obtain a departmental *Academic Progress of MS Students Form* (available in the Graduate Program Office) which will be signed by the committee following the successful completion of the oral preliminary examination. In the case of unsatisfactory performance, the M.S. Advisory Committee, the Biological Sciences Graduate Program Director and the Department Chair can recommend that the student withdraw from the Program.

VI. THESIS RESEARCH

Thesis research is initiated and conducted with the major professor. A student must be registered for Research credits in order to use the facilities of the University for research. A grade of Satisfactory or Unsatisfactory is recorded for all research credits. The written thesis should be of high caliber and be written in a style and format appropriate for publication in a peer-reviewed journal. *M.S. students are encouraged, but not required, to have submitted or published one primary or coauthored manuscript in a peer-reviewed journal prior to graduation.*

VII. GRADUATION

A. THE FINAL SEMESTER BEFORE GRADUATION

In the semester when the thesis defense is to be completed, there are important application deadlines that must be met. Please refer to the [Graduation Dates and Deadlines](#) and the [Thesis and Dissertation Formatting](#) instructions for more information, both available from the Graduate School.

The student must submit an *Application for Graduation* in PAWS early in the semester in which graduation is anticipated. After reviewing the student's records to determine eligibility, the Graduate School will forward the approved application to the Biological Sciences Graduate Program Director.

B. ORAL THESIS DEFENSE

The final thesis defense is a public presentation of thesis research, followed by an oral defense administered by the M.S. Advisory Committee. All other degree requirements must be satisfied before the defense. The date of the defense must be posted publicly one week prior to the defense. M.S. students are encouraged but not required to give a departmental seminar. The student must obtain the departmental *Academic Progress of M.S. Students Form* from the Biological Sciences Graduate Program office (the second half of the same form used for the Preliminary Examination). The form will be signed by the M.S. Advisory Committee upon the successful completion of the thesis defense.

The major professor must approve the thesis before it is presented to the rest of the M.S. Advisory Committee. Students should provide final thesis copies to all Committee members at least one (1) week in advance of the defense to allow sufficient time for review.

The Graduate School requires that all degree requirements be completed within five (5) years of the date of matriculation. *Any student who exceeds this time limit can be recommended for academic dismissal from the Graduate Program.*