

BS/MS Dual Degree Program

College of Natural Science, Department of Microbiology & Molecular Genetics

Contact: Dr. Jeannine Scott, scottj21@msu.edu

(revised 2/19/2021)

Eligibility:

- Third or fourth year students in the MMG department currently engaged in undergraduate research studies.
- Third or fourth year students outside of the MMG department that are engaged in research in a lab directed by a member of the MMG faculty.
- Minimum GPA of 3.0
- Completion of the equivalent of one or more semesters each of calculus, biological science, inorganic chemistry, organic chemistry, physics; and Introductory Microbiology.

Application procedure:

1) Submission of materials to MMG Department.

Note: Interested students should apply before or during the first semester of the junior year to complete the program in a timely manner. Please consult with the MMG Undergraduate Advisor (scottj21@msu.edu) before applying to this program.

Please submit the following documents to Dr. Jeannine Scott (scottj21@msu.edu):

1. MSU transcript.
2. A personal statement of professional intent and objectives.
3. Applicant's full resume or CV.
4. Two letters of reference:
 - one from the research advisor in MMG who has agreed to sponsor the research experience.
 - one from a second source.

Note: if the Research sponsor is *not* affiliated with MMG, admission to the program will be 'conditional' until applicant provides sponsor commitment form, and confirmation that **two** MMG faculty members have agreed to serve on the Guidance Committee.

2) Application review.

Once complete, the application packets will be reviewed by the admissions committee on a rolling basis and the applicant will be notified by letter regarding approval or disapproval of their application.

The admissions committee will be comprised of:

The Director of Graduate Studies
The Undergraduate Advisor

The Director of Undergraduate Studies
A member of the MMG Graduate committee

3) Application to Graduate School.

Once students are accepted by the Admission Committee, they will be required to officially apply through the MSU Graduate Applications Management System (GAMS) and pay the associated fee. This official application will insure proper coding by the Registrar's Office to graduate student status and allow enrollment in graduate courses.

University requirements:

1. 30 credits beyond the requirement for the B.S. degree.
2. At least 16 credits must be at the 800 or 900 level, and the remainder at the 400 level.
3. A GPA of 3.0 in courses taken for the graduate portion.

Department requirements:

1. No later than one semester after acceptance into the Program, a **Guidance Committee** of at least three members including the research advisor, two of which are MMG faculty, must be identified. The Committee assists the student in developing plan of study for the M.S. degree. Once approved by the Committee, submit the plan of study form with signatures to the MMG office, ideally by the end of the first semester of enrollment in the dual degree program.
2. Specifically, the **study plan** should include:
 - At least eight credits of research. This includes at least 7 credits of MMG 890 (15 credit maximum) over a period of four or more semesters. A maximum of 16 research credits (MMG890 and MMG499) can be counted towards the M.S. degree.
 - Coursework totaling at least 6 credits at the 800 or 900 level in **Microbiology** excluding research, seminar or topics courses. Substitutions must be approved in advance.
 - One 800 – 900 level Topics Seminar course relevant to the area of study.
 - At least one credit of MMG 892 (Departmental Seminar).
 - Additional credits at the 400 level or higher in courses relevant to the student's field of study.
 - The credits and courses that are used to satisfy the requirements for the B.S. degree (including a minimum of 2 credits of MMG499, and courses for any additional major or minor being pursued) may NOT be used to satisfy the requirements for the M.S. degree.
3. Student progress must be reviewed annually by the Guidance Committee. To remain in the Program a student must maintain a 3.0 GPA (maximum of one term on probation is allowed) and continue to have approval from the mentor and Guidance Committee. Failure of any of these requirements, or at the request of the student, the MMG department may drop the student from the dual degree program. Students who have not yet received their undergraduate degree will re-enter the standard B.S. program, with the standard requirements of that program in force.
4. Students are required to participate in **Responsible Conduct of Research (RCR)** training as described in the MMG Graduate Program Manual. Specifically, each BS/MS student is required to complete CITI Modules for Year 1 (Introduction to RCR; Authorship; Plagiarism; Research Misconduct) and 6 hrs discussion-based training prior to receiving the MS degree. Completion of this requirement will be tracked in SABA. For individuals involved in human or animal subjects research, the MSU training modules for those subjects must be completed before submitting IRB or IACUC approvals.
5. As this is a **Plan B** M.S. degree, students will prepare a **research report**, formatted following the guidelines for a submitted research article to an ASM-published or other reputable journal, followed by a **public seminar** and an **oral defense** before the final defense committee. The oral defense committee is comprised of the Guidance Committee and one member of the Graduate Committee. The defense committee will judge the written report, seminar presentation, and oral defense to ensure that an acceptable level of quality, research ability and independence of thought has been achieved appropriate to the M.S. degree.

Other Information:

- A student enrolled in a dual degree program will be considered an undergraduate until the semester after he/she has satisfied the requirements for the B.S. Prior to this time the student will be charged tuition at upper division undergraduate rates and be eligible for undergraduate assistantships and scholarships.
- The semester after the student has satisfied all requirements for the B.S. degree, he/she will be considered a graduate student for financial purposes. Nine credits maximum for the M.S. may be billed at the undergraduate tuition rate. After this point the student will be charged tuition at graduate student rates, and the student will be eligible graduate assistantships, fellowships and other forms of graduate student support **if available**.
- Once a student has achieved 120 credits minimum and satisfied all requirements for the B.S. degree, they may apply to graduate with the B.S. degree and continue to pursue the M.S. degree.