Date: 7-28-2015

Re: Proposed curricular changes to the Master of Science program in the Department of Microbiology and Immunology

To: Randy R. Brutkiewicz, Ph.D., Associate Dean for Graduate Studies

Dear Randy:

The Department of Microbiology and Immunology has proposed changes to its curriculum for the Master of Science (MS) degree program. With these changes we are seeking to increase flexibility within the curriculum to meet the various goals and needs of MS students, who pursue the MS degree for different reasons. We also wanted to streamline the required didactic course work so that students are likely to finish within 2 years.

Please review the enclosed proposal of changes to our MS curriculum. If you find this acceptable, please forward it to the Graduate Affairs Committee for their approval. If you have any questions or concerns, please let me know. Thank you very much!

Sincerely,

Margaret E. Bauer, Ph.D.
Associate Professor of Microbiology and Immunology
Graduate Advisor, Dept. of Microbiology and Immunology

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Depending on the student's interests and career goals, additional courses may be taken.

1. At least 4 of from among the following courses:
   - 1492 Introduction to Microbial Genomics (2 credits)
   - 1490 Current Topics in Immunology (2 credits)
   - 1498 Concepts of Cell Biology: Signaling Gene Activity (2 credits)
   - 1492 Introduction to Immunobiology Systems (1 credit)
   - 1497 Concepts of Cell Biology: Signaling Gene Activity (2 credits)
   - 1495 Introduction to Immunobiology Systems (1 credit)
   - 1497 Concepts of Cell Biology: Signaling Gene Activity (2 credits)

2. At least 2 of from among the following courses:
   - 1471 Molecular Basis of Cell Structure and Function (2 credits)
   - 1471 Molecular Basis of Cell Structure and Function (2 credits)
   - 1471 Molecular Basis of Cell Structure and Function (2 credits)
   - 1471 Molecular Basis of Cell Structure and Function (2 credits)

3. One course from among the following courses:
   - 1470 Research in Microbiology (one to two credits, 2 credits)

4. Required Didactic Course Work (14 to 16 credits)
   - A minimum of 20 credits of coursework is required for the MS degree.

5. This is a research-oriented MS degree. There is no non-thesis option.

This curriculum is designed to provide a broad understanding of the field of microbiology and immunology. Students are encouraged to take courses that align with their specific interests and career goals. The curriculum includes a mix of required and elective courses, allowing students to tailor their studies to their needs. Students are required to complete a minimum of 14 credits in didactic coursework as part of their degree program. This includes a research component, which is a key feature of the program. The curriculum is designed to prepare students for careers in various fields related to microbiology and immunology. Students are expected to complete the degree within 2 years under most circumstances. To fulfill the requirements of the degree, students should take courses in areas such as molecular biology, immunology, and microbiology. This will provide a strong foundation for students pursuing careers in research or industry. Overall, the program aims to provide a comprehensive education in microbiology and immunology that prepares students for a variety of career paths.
We propose eliminating the teaching requirement, it will now be an option for interested MS students.

Summary of Proposed Changes

1. We propose combining 4 cr of didactic course requirements to elective credits to increase flexibility in the program. The elective credits can be fulfilled by didactic course work, thesis research credits, or a combination of didactic and research credits. To provide for the elective credits, we encourage students interested in research to enroll in a journal club of interest in the 2nd year.

2. We propose a mandatory teaching requirement for the MS degree.

Existing Curriculum (cont.)

Teach for one semester in MCR 211 Microbiology 

Additional Requirements

- Attendance at departmental Research in Progress (RIP) Student Seminars
- Annual Presentation of Research at departmental seminars

Proposed Curriculum (cont.)

- Defense of the thesis to the committee
- Completion of a thesis project involving original research, and oral
- At least 16 cr of 610 Research in Microbiology
- Theses Research (16 cr)