

# BIOLOGY MS

## Co-Directors:

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## Mission Statement

The Master of Science in Biology program at Saint Joseph's University is designed to provide training in technical and professional skills for students who wish to join the workforce as proficient scientists, or for students who desire to pursue a doctoral or professional degree.

## Description of Program

The MS program requires completion of traditional courses and an extensive research project that culminates with a written thesis. The degree is typically completed within two years.

## Learning Goals and Outcomes

**Goal 1:** Students will gain a deeper understanding of complex concepts in the field of biology.

**Outcome 1.1:** Students will be able to define advanced concepts in biology and biological research.

**Outcome 1.2:** Students will be able to analyze and evaluate scientific information.

**Goal 2:** Students will develop skills used by research scientists.

**Outcome 2.1:** Students will will conduct scientific research and successfully defend a thesis project before a committee.

## Requirements

The MS degree requires completion of 30 credits of graduate level courses.

Code	Title	Hours
<b>Core Courses:</b>		
BIO 552	Graduate Seminar (each fall semester of enrollment)	1-2
BIO 785	Introduction to Research (not required for students in the BS/MS 4+1 program)	1
BIO 786	Research Ethics	1
BIO 801	Scientific Discourse (each spring semester of enrollment)	1-2
MAT 704	Statistics for Research	3
BIO 799	Master's Research	13-15
<b>Electives:</b>		
Two (2) Biology electives (600 level or higher) are required (3-4 credits each). Graduate courses outside Biology may count with approval of the Graduate Program Director.		6-8
<b>Total Hours</b>		<b>26-32</b>

## Thesis Requirements

The MS degree requires completion of a research project in the biological sciences under the supervision of a research mentor. The findings are

published in thesis form. A Thesis Committee will be formed to follow the progress of the candidate, evaluate the final thesis, and administer a final oral examination (thesis defense) based on the thesis research. The thesis must be acceptable in both scholarship and literary quality. To be recommended for the Master of Science degree in Biology, the candidate must receive approval of the majority of the committee members.