M.S. IN BIOCHEMISTRY AND MOLECULAR BIOLOGY

Overview

The Master of Science in Biochemistry & Molecular Biology is a full time, 30 credit program, designed to be completed in one year. This degree offers laboratory-based training in an intellectually stimulating learning environment with opportunities for students to become critical thinkers. Students are taught by faculty members who are leaders in the field of Biochemistry and Molecular Biology and span a broad area of research within the scientific community.

This program may be advantageous to those seeking hands-on laboratory & research experiences; a gap year before applying to medical programs; opportunities to enter the scientific workforce faster by gaining employable skills, or those wanting to be better prepared to apply for PhD and MSTP programs.

This degree may be optionally combined with a Master of Business Administration to enhance career options. The MBA portion of the sequential program may be completed in one year and consists of 44 MBA credits. The degrees must be obtained sequentially. The admission and degree process for the MBA is separate and conducted by the Miami Herbert Business School.

Admission Requirements

- In order to be admitted to this program, eligible students must have a Bachelor of Science degree in a basic science or related discipline.
- A cumulative grade point average of 3.0.
- Additionally, applicants are required to submit three letters of recommendation and a personal statement.
- Applicants who have not received a degree from a university in the United States will need to satisfy the English proficiency requirements by submitting valid TOEFL scores.

Full application instructions can be found online (http://biomed.med.miami.edu/apply/).

Curriculum Requirements

The requirements for graduation with MS degree include the following:

- Successful completion of 15 credit hours of required courses and 15 credit hours of research work totaling 30 credit hours.
- A final oral comprehensive examination of the research performed. A student failing the comprehensive may be allowed one opportunity to retake it if the student’s committee so advises. The re-examination may not be taken during the same semester or summer session and must be taken within one calendar year.

<table>
<thead>
<tr>
<th>Research Track</th>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>Required Courses</td>
<td>BMB 601</td>
<td>Research Journal Club</td>
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<td>BMB 605</td>
<td>Principles of Biochemistry and Molecular Biology</td>
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<td>BMB 614</td>
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<td>BMB 630</td>
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<td></td>
<td>BMB 680</td>
<td>Responsible Conduct of Research</td>
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<td>Electives</td>
<td>BMB 610</td>
<td>Advanced Topics in Biochemistry and Molecular Biology</td>
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<td></td>
<td>BMB 615</td>
<td>Structural Biology and Applications to Drug Discovery (Masters)</td>
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<tr>
<td></td>
<td>BMB 641</td>
<td>Essentials of Biotechniques I</td>
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<tr>
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<td>Essentials of Biotechniques II</td>
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### Electives

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### Internship

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### Capstone

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Total Credit Hours: 30

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### Suggested Plans of Study

#### Research Track

**Year One**

**Fall**

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<td>BMB 630</td>
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**Credit Hours**: 12

**Spring**

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<td>BMB 630</td>
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**Credit Hours**: 8

**Summer**

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**Credit Hours**: 6

**Total Credit Hours**: 30

#### Industry Track

**Year One**

**Fall**

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**Credit Hours**: 11

**Spring**

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