A Combined Degree program enables undergraduate students to enroll in graduate courses in their senior year, which can be counted towards the completion of both their Bachelor's and Master's degree requirements. The ability to take these "swing courses" allows students to earn both their Bachelor's and Master's degrees in a shortened period of time, typically within five years. Undergraduate students interested in this option can find more information regarding program requirements on the University's Combined Programs website (https://www.montclair.edu/combined-programs/programs-of-study/).

### Program Requirements Overview

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General Education Requirements</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td>World Languages and Cultures Requirements</td>
<td>3-9</td>
</tr>
<tr>
<td></td>
<td>Major Requirements (including Graduate swing courses)</td>
<td>67-68</td>
</tr>
<tr>
<td></td>
<td>Free Electives</td>
<td>14-7</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td>120</td>
</tr>
</tbody>
</table>

### Major Requirements

Requirements for the graduate portion of this combined program can be found here (http://catalog.montclair.edu/programs/statistics-ms/).

#### Mathematics Core

- **MATH 122** Calculus I, 4 credits
- **MATH 221** Calculus II, 4 credits
- **MATH 222** Calculus III, 4 credits
- **MATH 225** Linear Algebra, 4 credits
- **MATH 340** Probability, 3 credits

#### Mathematics Specialization

- **MATH 369** Mathematical Modeling, 3 credits
- **STAT 330** Fundamentals of Modern Statistics I, 4 credits

#### Mathematics Electives

Select 18 credits from the list below.

- **MATH 320** Transitions to Advanced Mathematics, 3 credits
- **MATH 323** Complex Variables, 3 credits
- **MATH 325** Ordinary Differential Equation, 4 credits
- **MATH 364** Operations Research I, 3 credits
- **MATH 398** Vector Calculus, 3 credits
- **MATH 421** Partial Differential Equations, 3 credits
- **MATH 425** Advanced Calculus I, 3 credits
- **MATH 426** Advanced Calculus II, 3 credits
- **MATH 431** Foundations of Modern Algebra, 3 credits
- **MATH 433** Theory of Numbers, 3 credits
- **MATH 450** Foundations of Geometry, 3 credits
- **MATH 451** Topology, 3 credits
- **MATH 460** Introduction to Applied Mathematics, 3 credits
- **MATH 463** Numerical Analysis, 3 credits
- **MATH 465** Operations Research II, 3 credits
- **MATH 485** Applied Combinatorics and Graph Theory, 3 credits
- **MATH 487** Introduction to Mathematical Cryptography, 3 credits
- **MATH 490** Honors Seminar, 3 credits
- **MATH 495** Special Topics in Advanced Undergraduate Mathematics, 1-3 credits

#### General Education Requirements

Click here for a list of courses that fulfill General Education categories. (http://catalog.montclair.edu/programs/general-education-requirements-ba-bs/)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>A. New Student Seminar</strong></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Complete a 1 credit New Student Seminar course.</td>
<td></td>
</tr>
</tbody>
</table>

#### Communication

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>1. Writing</strong></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>2. Literature</strong></td>
<td>3</td>
</tr>
</tbody>
</table>
3. Communication 3

D. Fine and Performing Arts
Complete a 3 credit Fine and Performing Arts course. 3

F. Humanities
1. Great Works and Their Influences 3
2. Philosophical and Religious Perspectives 3

G. Computer Science
- CSIT 111 Fundamentals of Java Programming (Fulfilled in the major.)
- or CSIT 104 Python Programming I

H. Mathematics
- MATH 122 Calculus I (Fulfilled in the major.)

I. Natural Science Laboratory
- PHYS 191 University Physics I (Fulfilled in the major.)

J. Physical Education
Complete a 1 credit Physical Education course. 1

K. Social Science
1. American and European History 3
2. Global Cultural Perspectives 3
3. Social Science Perspectives 3

L. Interdisciplinary Studies
Complete a 3 credit Interdisciplinary Studies course. 3

Total Credits 32

World Languages and Cultures Requirements
Click here for a list of courses that fulfill World Languages and Cultures categories. (http://catalog.montclair.edu/programs/world-languages-and-cultures-requirements/)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>World Languages</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Based on language placement exam, complete one or two sequential courses in the same language. <strong>Requirement is automatically fulfilled by language major courses.</strong></td>
<td>3-6</td>
</tr>
<tr>
<td></td>
<td>World Cultures</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Requirement may be fulfilled by course selected in General Education 0-3 Social Science: Global Cultural Perspectives. Requirement may also be fulfilled by major coursework. See list of courses.</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 3-9

Recommended Roadmap to Degree(s)
This recommended five-year plan is provided as an outline for students to follow in order to complete their degree requirements within five years. This plan is a recommendation and students should only use it in consultation with their academic advisor.

Fifth year courses are taken at the graduate level, after matriculation into the graduate portion of this combined degree program.

First Year

<table>
<thead>
<tr>
<th>Fall</th>
<th>Credits</th>
<th>Spring</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GENERAL EDUCATION: (A) New Student Seminar</td>
<td>1</td>
<td>GENERAL EDUCATION: (C2) Literature</td>
<td>3</td>
</tr>
</tbody>
</table>