

# MATHEMATICS (B.S.) (COMBINED B.S./M.S. APPLIED MATHEMATICS)

---

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

Students in this combined degree program must complete the requirements for:

Mathematics Major (B.S.) (<http://catalog.montclair.edu/programs/mathematics-bs/>)

Applied Mathematics (M.S.) (<https://montclair-curr.courseleaf.com/programs/applied-mathematics-ms/>)

## Graduate Swing Courses

A combined degree program allows students to complete 6-12 graduate credits ("graduate swing courses") while enrolled as an undergraduate. These courses count for both their bachelor and master's degrees. Graduate swing courses will count toward undergraduate free electives, unless noted otherwise.

The Graduate Swing Courses for this program:

| Code                                                                                      | Title                                        | Credits   |
|-------------------------------------------------------------------------------------------|----------------------------------------------|-----------|
| The following courses will also count toward the graduate program in Applied Mathematics. |                                              |           |
| AMAT 530                                                                                  | Scientific and Numerical Computing I         | 3         |
| AMAT 532                                                                                  | Applied Linear Algebra                       | 3         |
| AMAT 534                                                                                  | Data-Driven Modeling and Computation         | 3         |
| AMAT 536                                                                                  | Applied Probability and Stochastic Processes | 3         |
| <b>Total Credits</b>                                                                      |                                              | <b>12</b> |