

Mathematics- Master of Arts in Teaching, Master of Science

For information, contact:
 Director of Graduate Studies
 Department of Mathematics
 123 Bachelor Hall, 513-529-5818
<http://www.cas.MiamiOH.edu/math/>

Admission Requirements

A Bachelor's degree with an undergraduate major in mathematics or permission of the director of graduate studies is required and a GPA of 2.75 or higher.

Mathematics- Master of Science Program Requirements

(32 semester hours)

| Code | Title | Credit Hours |
|--|------------------------------------|--------------|
| Required courses | | |
| MTH 541 | Real Analysis | 3 |
| MTH 591 | Introduction to Topology | 3 |
| MTH 621 | Abstract Algebra I | 4 |
| MTH 641 | Functions of a Real Variable | 4 |
| Select three of the following: | | 9-10 |
| MTH 632 | Advanced Optimization | |
| MTH 638 | Advanced Graph Theory | |
| MTH 655 | Advanced Differential Equations | |
| MTH 691 | Introduction to Algebraic Topology | |
| In consultation with Graduate advisor, select additional hours to total 32 | | 9 |
| Total Credit Hours | | 32-33 |

Up to 6 of the 32 hours may come from outside mathematics, with the approval of the graduate committee.

15 of the 32 semester hours must be 600-level MTH courses. No thesis required.

Mathematics- Master of Arts in Teaching Program Requirements

This is primarily a summer program for certified/licensed teachers. Courses are offered on a three-year revolving basis in the summer terms, except for one online course in the Fall of even-numbered years. Required are 30 semester hours of graduate mathematics and education content including:

| Code | Title | Credit Hours |
|--|---|--------------|
| Required courses: | | |
| MTH 508 | Mathematical Problem Solving with Technology | 3 |
| MTH 604 | Discrete Mathematics for Secondary School Teachers | 3 |
| MTH 605 | Calculus for Secondary School Teachers | 3 |
| MTH 606 | Geometry for Secondary School Teachers | 3 |
| MTH 607 | Algebra for Secondary School Teachers | 3 |
| MTH 609 | Data Analysis and Inference for Secondary School Teachers | 3 |
| MTH 689 | Research in Math Education | 3 |
| Three elective courses (9 hours) selected to improve the candidate's ability to teach mathematics. | | 9 |
| Candidates must conduct an independent reflective self-study as a final project. | | |
| Total Credit Hours | | 30 |