# MATHEMATICS (M.A.)

***An admissions moratorium is currently in effect for this program.***

The Master of Arts with a Major in Mathematics is offered under the following options:

**Plan A:** *Twenty-four credits in course work plus an eight credit thesis.*

**Plan B:** *Twenty-seven credits in course work plus a three credit essay.*

**Plan C:** *Thirty credits in course work.*

Completion of these plans must satisfy the following criteria:

| Code | Title | Credits |
| --- | --- | --- |
| At least twenty-four credits of course work from the Department of Mathematics. Credits earned toward a thesis or essay in accordance with Plan A or Plan B may be included among these twenty-four credits. | | |
| MAT 5420 | Algebra I (if not previously taken) | 4 |
| MAT 5430 | Algebra II (if not previously taken) | 4 |
| MAT 5600 & MAT 5610 | Introduction to Analysis I and Introduction to Analysis II (if not previously taken) | 7 |
| MAT 6500 | Topology I (if not previously taken) | 3 |
| or MAT 6600 | Complex Analysis | |
| Select at least two of the following (if not previously completed): [1] | | 6-8 |
| MAT 5100 | Numerical Methods I | |
| MAT 5220 | Partial Differential Equations | |
| MAT 5230 | Complex Variables and Applications | |
| MAT 5410 | Applied Linear Algebra | |
| MAT 5530 | Elementary Differential Geometry and its Applications | |
| MAT 5700 | Introduction to Probability Theory | |
| MAT 5770 | Mathematical Models in Operations Research | |
| STA 5800 | Introduction to Mathematical Statistics | |
| MAT 5870 | Methods of Optimization | |
| Election of at least one additional mathematics course numbered 6000, or higher, with the exception of MAT 7999, MAT 8999 and teacher preparation courses. | | 2-4 |
| **Total Credits** | | **26-30** |

[1] These courses represent several areas of applied mathematics.

By the time twelve credits have been earned a Plan of Work, approved by a departmental advisor, should be submitted to the director of the master's program in mathematics. At this time, the Graduate Committee will act on the application for candidacy. The student will not be allowed to take more than twelve credits in the master's program unless candidacy has been established.

In the Plan of Work the student will state his or her choice of one of the plans A, B, or C. The choice of plan must be approved by the Graduate Committee.

There is a final oral examination for the master's degree. All students in Plan C are required to take this examination. Students in Plan A or B may, upon recommendation of the thesis or essay advisor, be excused from the final oral examination by the Graduate Committee.

It is required that the thesis or essay of each student in Plans A or B be presented in a public lecture.

**NOTE**: Candidates for the Master of Arts degree with a major in mathematics or in mathematical statistics are exempt from the requirement of the Graduate School that six credits in the major field must be in courses numbered 7000 and above.

**Academic Scholarship:** All course work must be completed in accordance with the regulations of the Graduate School (http://bulletins.wayne.edu/graduate/general-information/academic-regulations/) and the College of Liberal Arts and Sciences (http://bulletins.wayne.edu/graduate/college-liberal-arts-sciences/academic-regulations/).