

# M.S. IN MATHEMATICS

## Curriculum

| Code  | Title                               | Credits   |
|---|-------------------------------------|-----------|
| <b>Core Course Requirements</b>   |                                     |           |
| MAT 513   | Linear Algebra                      | 3         |
| MAT 515   | Algebra I                           | 3         |
| MAT 543   | Theory of Differential Equations    | 3         |
| MAT 545   | Real Analysis I                     | 3         |
| <b>Concentration Requirements</b>   |                                     |           |
| MAT 535   | Topology                            | 3         |
| Students must take two of the following three courses.  |                                     | 6         |
| MAT 516   | Algebra II                          |           |
| MAT 536   | Algebraic Topology                  |           |
| MAT 546   | Real Analysis II                    |           |
| Students must take one additional course from the following list.   |                                     | 3         |
| MAT 514   | Theory of Numbers                   |           |
| or MAT 516  | Algebra II                          |           |
| or MAT 521  | Discrete Mathematics & Graph Theory |           |
| or MAT 532  | Geometry I                          |           |
| or MAT 536  | Algebraic Topology                  |           |
| or MAT 546  | Real Analysis II                    |           |
| or MAT 575  | Complex Analysis I                  |           |
| <b>Electives <sup>1</sup></b>   |                                     |           |
| A student may choose 9 credits from among 500-level MAT course offerings, as well as STA 501, STA 505, STA 506, STA 511, STA 512, MTE 507, MTE 508, MTE 512, and MTE 604. Upon advisement, some MTE, CSC, or business graduate classes may be selected. MAT 500 does not apply towards this requirement.. |                                     | 9         |
| <b>Capstone Experience</b>  |                                     |           |
| A student may choose one of two different capstone experiences.   |                                     |           |
| Thesis - Student selects MAT 609 and MAT 610, which replace 6 credits of electives.   |                                     |           |
| Electronic Portfolio  |                                     |           |
| <b>Total Minimum Credits Required</b>   |                                     | <b>33</b> |

<sup>1</sup> Elective courses to be scheduled in advance on a rotating basis. Students selecting the thesis option take MAT 609 and MAT 610 as two of their three electives.