Mathematical Sciences, MA

The Master of Arts is conferred under Plan I (thesis) or Plan II (non-thesis). Students should explore with their faculty advisor which plan is better for their particular objectives. For the M.S. degree, a Program of Study must include a minor area in the College of Engineering or the College of Science. All minors must be outside of the department and must include at least six semester hours of approved graduate coursework. Master’s programs that include a thesis (Plan I) require at least 18 semester hours of graduate coursework in mathematics and at least 24 semester hours of total graduate coursework, and programs without a thesis (Plan II) require at least 33 semester hours of graduate coursework and at least 24 semester hours of these should be in mathematics. At least 50 percent of the coursework semester hours must be completed in courses numbered 609 or above. MA 538 or MA 539 and MA 544 should be included in every Program of Study.

Students should plan a Program of Study for the master’s degree with the help of a faculty advisor prior to the completion of 12 semester hours of coursework. Courses taken without an approved Program of Study may not apply toward a degree.

Master of Arts with Class A Teaching Certification

Teachers who hold the Alabama Class B Middle/Junior High or High School Certificate may pursue a program of study in mathematics that leads to a Master of Arts degree with Alabama Class A certification. The coursework for such a Program of Study is as follows:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MA 538</td>
<td>METRIC SPACES W/APPLICA (or)</td>
<td>3</td>
</tr>
<tr>
<td>or MA 539</td>
<td>MULTIDIMENSIONAL ANALYSIS</td>
<td></td>
</tr>
<tr>
<td>MA 542</td>
<td>ALGEBRA</td>
<td>3</td>
</tr>
<tr>
<td>MA 544</td>
<td>LINEAR ALGEBRA</td>
<td>3</td>
</tr>
<tr>
<td>MA 585</td>
<td>PROBABILITY</td>
<td>3</td>
</tr>
<tr>
<td>MA 614</td>
<td>NUM METHODS/LINEAR ALGEBRA</td>
<td>3</td>
</tr>
<tr>
<td>MA 633</td>
<td>GEOMETRY</td>
<td>3</td>
</tr>
<tr>
<td>ST 687</td>
<td>THEORY OF STATISTICS I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>9 semester hours of appropriate graduate education courses</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>One approved MA or ST course numbered 609 or above</td>
<td>3</td>
</tr>
</tbody>
</table>

Individuals who are interested in obtaining a Master of Arts degree with Alabama Class A certification in mathematics, but who have not completed more than 12 semester hours in teacher education (graduate or undergraduate) courses, should consider the Non-Traditional Fifth Year Program. The MA and ST courses given in the preceding paragraph would be appropriate for such a program. Students should contact the Education Department for preliminary advisement on admission and general program requirements. More details on the Non-Traditional Fifth Year Program are given in the Education Department section.

Master’s Degree Final Examination

A final comprehensive examination is required of all candidates for a master’s degree. The candidate will be examined on the coursework and thesis in Plan I and on the coursework in Plan II. In the Mathematical Sciences Department this examination is oral, except that Plan II students who have passed a joint program examination for the Ph.D. degree in applied mathematics may use that examination as their master’s degree final examination.