Mathematics Area/Applied Option

The following guide is intended to assist a student with an Associate’s degree in completing a Bachelor’s degree in an efficient manner. For such a student, there will be no University Studies requirements, but there may be prerequisite requirements for courses for the Area coursework. In addition, some of the Area coursework might be 4 and 5 credit courses, reducing the required Area coursework from 6 courses to 5. For a complete and accurate analysis, the student should schedule an advising session with the department chair.

Programs in Mathematics all require completion of Calculus II before the student can begin to take more than one Mathematics course in a semester. Thus, it will be most efficient if some of the hours within the student’s Associate’s degree are directed towards requirements of the program. When replacing several MSU courses by courses from a two-year college or another university, be careful to note that the total number of hours is still at least 120 hours and that the number of hours of coursework at or above the 300 level is still at least 42 hours. Courses transferring from a 2-year college **can not** count toward the number of hours of coursework at or above the 300 level, even when the transferred course is counted as the equivalent of a 300-level MSU course.

When known, the KCTCS equivalent course is listed in brackets after the MSU course.

### Beginning in MAT 309 Calculus III with Associate’s degree completed**

<table>
<thead>
<tr>
<th>First Year</th>
<th>Second Semester</th>
<th>Second Year</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester</strong>&lt;br&gt; MAT 100T..................1 hr&lt;br&gt; MAT 309 [MAT 275].4 hrs&lt;br&gt; MAT 338 [MAT 285].3 hrs&lt;br&gt; Comp. Prog*..............3 hrs&lt;br&gt; Area......................3 hrs&lt;br&gt; <strong>Semester Total........14 hrs</strong></td>
<td>MAT 312..............3 hrs&lt;br&gt; MAT 442..............3 hrs&lt;br&gt; MAT LimElec†........3 hrs&lt;br&gt; Comp. Prog*..............3 hrs&lt;br&gt; Area......................3 hrs&lt;br&gt; <strong>Semester Total....15 hrs</strong></td>
<td><strong>First Semester</strong>&lt;br&gt; MAT 540 (Fall). 4 hrs&lt;br&gt; MAT 335..............3 hrs&lt;br&gt; FreeElective........3 hrs&lt;br&gt; Area......................3 hrs&lt;br&gt; Area......................3 hrs&lt;br&gt; <strong>Semester Total....16 hrs</strong></td>
<td>MAT LimElec†........3 hrs&lt;br&gt; MAT LimElec†........3 hrs&lt;br&gt; Area......................3 hrs&lt;br&gt; Area......................3 hrs&lt;br&gt; FreeElective††........3 hrs&lt;br&gt; <strong>Semester Total.....15 hrs</strong></td>
</tr>
</tbody>
</table>

### Beginning in MAT 308 Calculus II with Associate’s degree completed

<table>
<thead>
<tr>
<th>First Year</th>
<th>Second Semester</th>
<th>Second Year</th>
<th>Third Year</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester</strong>&lt;br&gt; MAT 100T..................1 hr&lt;br&gt; MAT 308 [MAT 185].5 hrs&lt;br&gt; Area......................3 hrs&lt;br&gt; Area......................3 hrs&lt;br&gt; <strong>Semester Total........12 hrs</strong></td>
<td>MAT 309 [MAT 275].4 hrs&lt;br&gt; MAT 312..............3 hrs&lt;br&gt; Comp. Prog*..............3 hrs&lt;br&gt; Area......................3 hrs&lt;br&gt; <strong>Semester Total........13 hrs</strong></td>
<td><strong>First Semester</strong>&lt;br&gt; MAT 540 (Fall) ........4 hrs&lt;br&gt; MAT 335..............3 hrs&lt;br&gt; MAT 338 [MAT 285].3 hrs&lt;br&gt; Area......................3 hrs&lt;br&gt; <strong>Semester Total........13 hrs</strong></td>
<td><strong>First Semester</strong>&lt;br&gt; MAT LimElec†........3 hrs&lt;br&gt; MAT LimElec†........3 hrs&lt;br&gt; Area......................3 hrs&lt;br&gt; FreeElective††........3 hrs&lt;br&gt; <strong>Semester Total...12 hrs</strong></td>
</tr>
</tbody>
</table>

**Warning:** With some area coursework it might not be possible to take two concurrent courses without first fulfilling prerequisites.
Beginning in MAT 308 Calculus II with Associate’s degree completed (unadvisedly compressed)

**First Year**
- **First Semester**
  - MAT 100T .....................1 hr
  - MAT 308 [MAT 185] ..5 hrs
  - Comp. Prog* .................3 hrs
  - Area................................3 hrs
  - Free Elective†† ...........3hrs
  - **Semester Total.........15 hrs**

- **Second Semester**
  - MAT 309 [MAT 275] ..4 hrs
  - MAT 338 [MAT 285] ..3 hrs
  - MAT 442.................3 hrs
  - Comp. Prog*.............3 hrs
  - Area................................3 hrs
  - Area................................3 hrs
  - **Semester Total........16 hrs**

**Second Year**
- **First Semester**
  - MAT 540 (Fall) 4 hrs
  - MAT 312...........3 hrs
  - MAT LimElec† ..3 hrs
  - Area...................3 hrs
  - Area...................3 hrs
  - **Semester Total.....16 hrs**

- **Second Semester**
  - MAT 335...........3 hrs
  - MAT 442............3 hrs
  - MAT LimElec† ..3 hrs
  - Area....................3 hrs
  - Area....................3 hrs
  - **Semester Total....15 hrs**

**Third Year**
- **First semester**
  - MAT 540 (Fall) 4 hrs
  - MAT LimElec† 3 hrs
  - MAT LimElec† 3 hrs
  - Area...................3 hrs
  - Area...................3 hrs
  - **Semester Total....13 hrs**

---

*The computer programming courses are chosen in consultation with the student’s advisory committee from among: CSC 145, CSC 232 [CIS 148, CIT 148], CSC 235, EGR 140. †At least 13 hours of the non-mathematics coursework must be at the 300 level or above to meet MSU graduation requirements. ††Free Electives could be any course that the student has the prerequisites to take, and is needed to reach the 120 hours needed to graduate. This is only a rough guide. Additional transferred credits, prerequisite requirements, or changes in course offerings and schedules might require you to take courses in a different semester than listed above.

- □ 2.0 Cumulative GPA
- □ 2.0 GPA in courses taken at MSU
- □ 2.0 GPA in area, majors, minors
- □ 2.0 GPA in courses taken at MSU in area, majors, minors
- □ Minimum of 120 earned hours (exclusive of non-degree credit)
- □ Minimum of 40 earned hours in residence at MSU
- □ Minimum of 42 upper-level hours (at least 300 level) earned at a 4-year institution

Warning: With some area coursework it might not be possible to take two concurrent courses without first fulfilling prerequisites.