

## Mathematics Major

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 still be requirements within the minor and/or prerequisite requirements for courses within the minor. In addition, some of the coursework for the minor might be 4 and 5 credit courses, reducing the required coursework for the minor from 7 courses to 6. 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 after Associate's degree \*\*

#### First Year

##### First Semester

MAT 100T.....1 hr  
MAT 309 [MAT 275]..4 hrs  
MAT LimElec†.....3 hrs  
Comp. Prog\*.....3 hrs  
Minor.....3 hrs  
**Semester Total.....14 hrs**

##### Second Semester

MAT 312.....3 hrs  
MAT 335.....3 hrs  
MAT LimElec† 3 hrs  
Minor.....3 hrs  
Minor.....3 hrs  
**Semester Total....15 hrs**

#### Second Year

##### First Semester

MAT 540 (Fall) 4 hrs  
MAT LimElec† 3 hrs  
FreeElective.....3 hrs  
Minor.....3 hrs  
Minor.....3 hrs  
**Semester Total....16 hrs**

##### Second Semester

MAT LimElec†..3 hrs  
MAT LimElec†..3 hrs  
Minor.....3 hrs  
Minor.....3 hrs  
FreeElective††.....3 hrs  
**Semester Total 15 hrs**

### Beginning in MAT 308 Calculus II after Associate's degree

#### First Year

##### First Semester

MAT 100T.....1 hr  
MAT 308 [MAT 185]..5 hrs  
Minor.....3 hrs  
Minor.....3 hrs  
**Semester Total.....12 hrs**

#### Second Year

##### First Semester

MAT 540 (Fall) 4 hrs  
MAT 335.....3 hrs  
MAT LimElec†..3 hrs  
Minor.....3 hrs  
**Semester Total....13 hrs**

#### Third Year

##### First semester

MAT LimElec† 3 hrs  
MAT LimElec† 3 hrs  
Minor.....3 hrs  
FreeElective††...3 hrs  
**Semester Total....12 hrs**

##### Second Semester

MAT 309 [MAT 275]..4 hrs  
MAT 312.....3 hrs  
Comp. Prog\*.....3 hrs  
Minor.....3 hrs  
**Semester Total.....13 hrs**

##### Second Semester

MAT LimElec†..3 hrs  
MAT LimElec†..3 hrs  
Minor.....3 hrs  
Minor.....3 hrs  
**Semester Total 12 hrs**

**Warning:** With some minors, it might not be possible to take two concurrent courses without first fulfilling prerequisites.

## Beginning in MAT 308 Calculus II after Associate's degree (unadvisedly compressed)

### First Year

#### First Semester

MAT 100T.....1 hr  
 MAT 308 [MAT 185]..5 hrs  
 Comp. Prog\*.....3 hrs  
 Minor.....3 hrs  
 Free Elective††.....3 hrs  
**Semester Total.....15 hrs**

#### Second Semester

MAT 309 [MAT 275]..4 hrs  
 MAT 312.....3 hrs  
 MAT LimElec†.....3 hrs  
 Minor.....3 hrs  
 Minor.....3 hrs  
**Semester Total.....16 hrs**

### Second Year

#### First Semester

MAT 540 (Fall) 4 hrs  
 MAT LimElec† 3 hrs  
 MAT LimElec† 3 hrs  
 Minor.....3 hrs  
 Minor.....3 hrs  
**Semester Total....16 hrs**

#### Second Semester

MAT 335.....3 hrs  
 MAT LimElec†..3 hrs  
 MAT LimElec†..3 hrs  
 Minor.....3 hrs  
 Minor.....3 hrs  
**Semester Total 15 hrs**

## Beginning in MAT 250 Calculus I after Associate's degree

### First Year

#### First Semester

MAT 100T.....1 hr  
 MAT 250 [MAT 175]..5 hrs  
 Minor.....3 hrs  
 Minor.....3 hrs  
**Semester Total.....12 hrs**

#### Second Semester

MAT 308 [MAT 185]..5 hrs  
 Comp. Prog\*.....3 hrs  
 Minor.....3 hrs  
 Minor.....3 hrs  
**Semester Total.....14 hrs**

### Second Year

#### First Semester

MAT 309 [MAT 275]..4 hrs  
 MAT 312.....3 hrs  
 MAT LimElec†.....3 hrs  
 Minor.....3 hrs  
**Semester Total.....13 hrs**

#### Second Semester

MAT 335.....3 hrs  
 MAT LimElec†..3 hrs  
 MAT LimElec†..3 hrs  
 Minor.....3 hrs  
**Semester Total 12 hrs**

### Third Year

#### First semester

MAT 540 (Fall) 4 hrs  
 MAT LimElec† 3 hrs  
 MAT LimElec† 3 hrs  
 Minor.....3 hrs  
**Semester Total....13 hrs**

**Warning:** With some minors, it might not be possible to take two concurrent courses without first fulfilling prerequisites.

\*The computer programming course can be chosen from among CSC 145, CSC 232 [CIS 148 or CIT 148], CSC 235, EGR 140.

†These five courses must satisfy:

One of MAT 513, MAT 516, MAT 525 All are offered in Fall only. MAT 516 is offered in the Falls of odd-numbered years.

One of MAT 442, MAT 506, MAT 524, MAT 541. Most are offered in Spring only. MAT 506 is offered in the Falls of odd-numbered years.

**Three** more course chosen from MAT 338 [MAT 285] and MAT courses at or above the 400 level.

\*\*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.

Additional transferred credits, prerequisite requirements, or changes in course offerings and schedules might require you to take courses in a different semester than listed.

- ☐ 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      ☐ 20 of the last 32 hours earned in residence at MSU
- ☐ Minimum of 42 upper-level hours earned at a 4-year institution (sometimes an issue with transfer students)