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**

First Year

First Semester
MAT 100T.................1 hr
MAT 309 [MAT 275]..4 hrs
MAT 338 [MAT 285]..3 hrs
Comp. Prog*...............3 hrs
Area..............................3 hrs
Semester Total............14 hrs

Second Semester
MAT 312.............3 hrs
MAT 442............3 hrs
MAT LimElec†..3 hrs
Comp. Prog*.....3 hrs
Area...................3 hrs
Semester Total....15 hrs

Second Year

First Semester
MAT 540 (Fall). 4 hrs
MAT 335............3 hrs
FreeElective......3 hrs
Area...................3 hrs
Area...................3 hrs
Semester Total....16 hrs

Second Semester
MAT LimElec† 3 hrs
MAT LimElec†..3 hrs
Area...................3 hrs
Area...................3 hrs
FreeElective††...3 hrs
Semester Total......15 hrs

Beginning in MAT 308 Calculus II with Associate's degree completed

First Year

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

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

Second Year

First Semester
MAT 540 (Fall) ....4 hrs
MAT 335....................3 hrs
MAT 338 [MAT 285]..3 hrs
Area............................3 hrs
Semester Total.............13 hrs

Second Semester
MAT 442...........3 hrs
MAT LimElec†..3 hrs
Comp. Prog*.....3 hrs
Area...................3 hrs
Semester Total .....12 hrs

Third Year

First semester
MAT LimElec† 3 hrs
MAT LimElec† 3 hrs
Area...................3 hrs
FreeElective††...3 hrs
Semester Total....12 hrs

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
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 LimElec†..3 hrs
MAT LimElec†..3 hrs
Area...................3 hrs
Area...................3 hrs
Semester Total....15 hrs

Beginning in MAT 250 Calculus I with Associate's degree completed

First Year

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

Second Semester
MAT 308 [MAT 185]..5 hrs
Comp. Prog*..............3 hrs
Area............................3 hrs
Area............................3 hrs
Semester Total.............14 hrs

Second Year

First Semester
MAT 309 [MAT 275]..4 hrs
MAT 312.....................3 hrs
MAT 338 [MAT 285]..3 hrs
Comp. Prog*...............3 hrs
Semester Total.............13 hrs

Second Semester
MAT 335............3 hrs
MAT 442............3 hrs
MAT LimElec†..3 hrs
Area...................3 hrs
Semester Total 12 hrs

Third Year

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

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

*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.
†These three courses must be chosen from 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.
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 ☐ 20 of the last 32 hours earned in residence at MSU
- ☐ Minimum of 42 upper-level hours (at least 300 level) earned at a 4-year institution