Mathematics Major/Secondary Certification

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 Area coursework. The Education coursework adds quite a few additional hours; in addition, 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.

Note that, counting the Student Teaching semester, all of the options below require at least 3 full years in addition to the Associate's degree that the student brings in. If the student has not completed Calculus I as part of their Associate's degree, then it will take 3.5 years (7 semesters) in addition to the Associate's degree. This time can be shortened somewhat by including in the Associate's degree: coursework towards the minor, coursework in Mathematics, and coursework in Education. More information about this can be found on the last page.

There are two Mathematics/Secondary Certification programs: the Mathematics **Area**/Secondary Certification, and the Mathematics **Major**/Secondary Certification. The latter requires a minor (usually 7 courses in another discipline) in addition to the Mathematics Major and the coursework in Education. The former requires only 4 additional courses beyond the Mathematics Major and the coursework in Education. Since someone can not gain a secondary certification to teach a discipline with only a minor in that discipline, then most Mathematics/Secondary Certification students choose the shorter Mathematics **Area**/Secondary Certification program. Occasionally a student might chooose the Mathematics **Major**/Secondary Certification program because they want to coach in high school and find the Athletic Coaching minor to be valuable; other students choose this longer program because they enjoy some discipline and wish to minor in that discipline just for its own sake.

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

Beginning *after* MAT 309 Calculus III with Associate's degree

First Year

First Semester
MAT 100T.....................1 hr
MAT 312.....................3 hrs
EDU 103 [EDU 201]...3 hrs
EDP 260 [EDP 202]....3 hrs
HEA 191 [KHP 190]...3 hrs
Minor..........................3 hrs
Semester Total........16 hrs

Second Semester
MAT 335....................3 hrs
MAT LimElec†..........3 hrs
SED 300 [EDP 203]...3 hrs
Minor..........................3 hrs
Minor..........................3 hrs
Semester Total........15 hrs

Second Year

First Semester
MAT 540 (Fall) 4 hrs
MAT 550...........3 hrs
Comp. Prog*......3 hrs
EDU 303............3 hrs
Minor.................3 hrs
Semester Total....16 hrs

Second Semester
MAT 517 (Spring)..3 hrs
MAT LimElec† ......3 hrs
EDU 405**..............3 hrs
EDU 420**............3 hrs
Minor.....................3 hrs
Semester Total....15 hrs

Third Year

First semester
MAT LimElec† ...3 hrs
SEC 422**...........4 hrs
EDU 403**..........3 hrs
Minor....................3 hrs
Minor....................3 hrs
Semester Total....16 hrs

Second Semester:
Student Teaching Semester
SEC 421............14 hrs
Semester Total....14 hrs

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
EDU 103 [EDU 201]...3 hrs
EDP 260 [EDP 202]....3 hrs
HEA 191 [KHP 190]....3 hrs
Minor.........................3 hrs
Semester Total..........17 hrs

Second Semester

MAT 312...................3 hrs
MAT 335...................3 hrs
SED 300 [EDP 203]...3 hrs
Minor.........................3 hrs
Minor.........................3 hrs
Semester Total.........15 hrs

Second Year

First Semester

MAT 540 (Fall) 4 hrs
MAT 550...........3 hrs
Comp. Prog*......3 hrs
EDU 303............3 hrs
Minor.................3 hrs
Semester Total....16 hrs

Second Semester

MAT 517 (Spring)..3 hrs
MAT LimElec†.......3 hrs
EDU 405**.............3 hrs
EDU 420**.............3 hrs
Minor.....................3 hrs
Minor.....................3 hrs
Semester Total .... 18 hrs

Third Year

First semester

MAT LimElec† ...3 hrs
MAT LimElec† ...3 hrs
SEC 422**...........4 hrs
EDU 403**..........3 hrs
Minor...................3 hrs
Semester Total....16 hrs

Second Semester:
Student Teaching Semester
SEC 421............14 hrs
Semester Total....14 hrs

Beginning in MAT 308 Calculus I with Associate's degree completed.

First Year

First Semester

MAT 100T...................1 hr
MAT 308 [MAT 185]..5 hrs
EDU 103 [EDU 201]..3 hrs
EDP 260 [EDP 202]....3 hrs
HEA 191 [KHP 190]...3 hrs
Minor.........................3 hrs
Semester Total.........18 hrs

Second Semester

MAT 309 [MAT 275]..4 hrs
MAT 312....................3 hrs
Comp. Prog*...............3 hrs
SED 300 [EDP 203]....3 hrs
Minor.........................3 hrs
Minor.........................3 hrs
Semester Total.........19 hrs

Second Year

First Semester

MAT 335...................3 hrs
MAT 540 (Fall) ....4 hrs
MAT 550...................3 hrs
EDU 303....................3 hrs
Minor.........................3 hrs
Semester Total.........16 hrs

Second Semester

MAT 517 (Spring).3 hrs
MAT LimElec†.....3 hrs
EDU 405**.............3 hrs
EDU 420**.............3 hrs
Minor...................3 hrs
Minor...................3 hrs
Semester Total .....18 hrs

Third Year

First semester

MAT LimElec† ...3 hrs
MAT LimElec† ...3 hrs
SEC 422**...........4 hrs
EDU 403**..........3 hrs
Minor...................3 hrs
Semester Total....16 hrs

Second Semester:
Student Teaching Semester
SEC 421............14 hrs
Semester Total....14 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
EDU 103 [EDU 201]..3 hrs
HEA 191 [KHP 190]..3 hrs
Minor.........................3 hrs
Semester Total........15 hrs

Second Semester
MAT 308 [MAT 185]..5 hrs
Comp. Prog*...............3 hrs
EDP 260 [EDP 202]....3 hrs
SED 300 [EDP 203]....3 hrs
Minor..........................3 hrs
Semester Total.........17 hrs

Second Year

First Semester
MAT 309 [MAT 275]..4 hrs
MAT 312....................3 hrs
MAT LimElec†...........3 hrs
EDU 303....................3 hrs
Minor..........................3 hrs
Semester Total.........16 hrs

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

Third Year

First semester
MAT 540 (Fall) 4 hrs
MAT 550 (Fall) 3 hrs
MAT LimElec† 3 hrs
EDU 405**.......3 hrs
EDU 420**.......3 hrs
Semester Total....16 hrs

Second Semester:
MAT 517(Spring).3 hrs
SEC 422**...........4 hrs
EDU 403**...........3 hrs
Minor....................3 hrs
Minor....................3 hrs
Semester Total....16 hrs

Next Fall:
Student Teaching Semester
SEC 421............14 hrs

As mentioned above, it may shorten the time to a Bachelor's degree if some of the coursework towards the Associate's degree is chosen judiciously. For instance, as a part of our Mathematics Area/Secondary Certification, there are
    a) four Mathematics courses with equivalents in KCTCS and in most two-year colleges (all of which are noted on this document);
    b) three Education courses with KCTCS equivalents;
    c) one Computer programming course with a KCTCS equivalent;
In addition, some courses towards the minor could be taken as a part of the Associate's degree.

*The computer programming course can be chosen from among CSC 145, CSC 232 [CIS 148 or CIT 148], CSC 235, EGR 140.
†These three 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.
    One more course chosen from MAT 338 [MAT 285] and MAT courses at or above the 400 level.
**EDU 405 and SEC 420 must be taken two semesters prior to student teaching; SEC 422 must be taken the semester before student teach-
    ing; EDU 403 may be taken one or two semesters prior to student teaching**.** All of these courses require admission to Teacher
    Education.
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.
- ☐ 2.75 Cumulative GPA   ☐   2.75 GPA in courses taken at MSU ☐   2.75 GPA in area, majors
- ☐ 2.75 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