# Roadmap B.S. in Mathematics: Teaching option - AY 2022-2023
# For Transfer Students

This guide is an unofficial document intended to be used for advising and course planning. This document cannot be used to waive or supersede requirements listed in the catalog. Fulfillment of all University requirements (including required units) will be determined by the office of the Registrar.

This guide assumes that the student has satisfied and transferred from community college all of the lower division GE requirements, and the following courses: MATH 75, 76, 77, 81; and at least one of PHYS 4A or CSCI 40. Note that both of these courses are required for the mathematics major. Besides satisfying the major requirements and GE requirements, students also need to earn at least 120 units in total.

| YEAR 1: FALL | | | YEAR 1: SPRING | | |
|---|---|---|---|---|---|
| COURSE | UNITS | PREREQ | COURSE | UNITS | PREREQ |
| **MATH 111** | 4 | MATH 76 | **MATH 152**[1] | 4 | MATH 77 |
| **MATH 101 or 143** | 4 | MATH 75 | **MATH 193D**[2] (Spring only) | 1 | See table below |
| **CSCI 40 or PHYS 4A**[0] (if not taken at CC) | 4/3 | MATH 75 or MATH 76 (concurrently OK) | **MATH 143 or 101** | 4 | MATH 75 |
| **UD GE IB** | 3 | | **MATH 161**[2] | 3 | MATH 111 |
| | | | **EHD 50** (Credential Pre-Req) | 3 | |
| **TOTAL UNITS** | 14/15 | | **TOTAL UNITS** | 15 | |

| YEAR 2: FALL | | | YEAR 2: SPRING | | |
|---|---|---|---|---|---|
| COURSE | UNITS | PREREQ | COURSE | UNITS | PREREQ |
| **MATH 151**[1] | 4 | MATH 152 (or permission); and MATH 111 | **MATH 171**[1] | 4 | MATH 111 |
| **MATH 145**[2] | 3 | See table below | **MATH 149S**[2] | 4 | See table below |
| **MATH Elective**[2] | 3/4 | | **UD GE IC** | 3 | |
| **UD MI**[0] | 3 | | **UD GE ID**[0] | 3 | |
| **CI 149** (Credential Pre-Req) | 3 | | **Free elective** (if units are needed) | 1 | |
| **TOTAL UNITS** | 16/17 | | **TOTAL UNITS** | 15 | |

[0]PHYS 4AL is not required for this option in the math major. If students wish to include PHYS 4A as a General Education Breadth course, they must also take PHYS 4AL.

[0]Consider taking ANTH 105W (UD MI) or ANTH 116W (UD GE ID) to satisfy your upper division Writing Skills Requirement.

[1] It is suggested to take MATH 81 before taking MATH 152.

[1] Taking MATH 116 before taking MATH 151 has been found beneficial.

[1] Taking at least one of MATH 161, 128, or 165 before taking MATH 171 has been found beneficial.

[2] The following table summarizes the MATH Electives for the TEACHING option. See your advisor from the Math Department.

| Course Number | Course Title | Prereq | Semester |
|---|---|---|---|
| MATH 143 | History of Mathematics | MATH 75 | Fall and Spring |
| MATH 145 | Problem Solving | MATH 111; EHD 50 (concur. OK) | Fall and Spring |
| MATH 149S | Capstone Math for Teachers | MATH 151; 161 and 171 (161 and 171 concur. OK) | Spring only |
| MATH 161 | Principles of Geometry | MATH 111 | Fall and Spring |
| MATH 193D | Junior Seminar in Mathematics Teaching | MATH 111 and at least one of MATH 101, 143, or 145 | Spring only |
| MATH Elective* | | | |

*The fifth MATH elective can be any 3-4 unit mathematics course, upper division or graduate (excluding MATH 100, 102, 133, 134, 137, 138, 139). Special conditions apply for graduate courses; see department advisor.

**Advising note: Students should meet with their academic advisor from the Department of Mathematics at least once per year.**

Upper Division GE courses, CI 149, MATH 101 and MATH 143 are also offered during summer sessions. Students in this option should consult with a credential advisor in the Department of Mathematics no later than the beginning of their senior year.