

Certificate in Introductory Mathematics

The Certificate in Introductory Mathematics meets the required components for the Subject Matter Authorization: Introductory Mathematics. Completion of this program allows individuals who hold a valid California teaching credential to apply for the Subject Matter Authorization: Introductory Mathematics for teaching the content matter up through ninth grade mathematics. This certificate may be earned by regularly matriculated or extended learning students.

All core certificate requirements are offered in-person during the academic year. Certain electives have occasional online offerings (Math 2372) or are offered in hybrid mode with up to 25% of instruction occurring online (Math 3100).

Certificates may be earned by regularly matriculated or extended learning students and denote successful completion of a prescribed program of study designed to:

1. impart specified professional/vocational/career competencies; or
2. produce mastery of the content of a sub-field of an academic major (discipline); or
3. provide exposure to the range of materials in a traditional or emerging interdisciplinary field.

Certain certificate programs contain 6000-level courses as requirements and/or electives. These 6000-level courses may not be taken by undergraduate students. Candidates must receive two-thirds of their certificate-applicable credit from the university. The transferring of credit or the substitution of courses may occur only after application to the appropriate campus authority.

Certificate Requirements (29-36 units)

Courses must be completed with a grade of C (2.0) or better.

Core Requirements and Electives (29-36) 29-36

Core Requirements

Select at least one course from each of the following five areas, with no course used to satisfy more than one area:

A1: Algebra

MATH 1301 Modeling with Functions
or MATH 1402 Preparation for Calculus A

MATH 1401 Accelerated Preparation for Calculus
or MATH 1402 Preparation for Calculus A

MATH 1601 Modeling with Calculus
or MATH 2210 Calculus I

Note: MATH 1302 and MATH 1303 may substitute for MATH 1301; however, only 3 units will apply towards the total units for the Certificate.

A2: Advanced Algebra

MATH 1401 Accelerated Preparation for Calculus
or MATH 1403 Preparation for Calculus B

MATH 1601 Modeling with Calculus
or MATH 2210 Calculus I

MATH 2220 Calculus II
MATH 2310 Applied Linear Algebra

A3 : Geometry

MATH 1601 Modeling with Calculus
or MATH 2210 Calculus I

MATH 2220 Calculus II

MATH 2320 Multivariable Calculus

MATH 3013 Mathematical Concepts and Problem Solving for Educators III

A4: Probability & Statistics

MATH 1201 Introduction to Statistical Thinking
or MATH 2265 Statistics with Applications

A5 : Development of the Real Number System

MATH 1601 Modeling with Calculus
or MATH 2210 Calculus I

MATH 2220 Calculus II

MATH 3010 Mathematical Concepts and Problem Solving for Educators I

Electives

Select an additional 14-17 units from: (1) other courses listed above not already used to meet the required categories (unless courses are restricted between two options in those categories), (2) any mathematics course numbered 2000 to 4000 applicable to the BS in Mathematics - Teaching Mathematics Concentration, or (3) the following courses:

MATH 1501 Critical Thinking Through Applications of Mathematical Logic

MATH 2229L Two-Dimensional Geometry Lab

MATH 2239L Three-Dimensional Geometry Lab

MATH 2372 Discrete Mathematics

MATH 3012 Mathematical Concepts and Problem Solving for Educators II

MATH 3510 Topics in Mathematics

Total Units

29-36