

Mathematics, Minor

ASMATHMIN

Gain a better understanding of mathematical principles to help you thrive in any career in science, technology, engineering and mathematics.

Description

In the minor program in mathematics, students explore the study of higher mathematics. It is designed to enable the student to understand the mathematics most commonly used in business, economics and science. It is expected that students in the minor will be able to reason and to find creative solutions to problems that are either presented to them or meaningfully formulated by them.

The program is offered by the School of Mathematical and Natural Sciences.

At a glance

- **College/School:** [New College of Interdisciplinary Arts and Sciences](#)
- **Location:** [West Valley](#)

Program requirements

[2024 - 2025 Minor Map](#)

[Minor Map \(Archives\)](#)

The minor in mathematics consists of 20 credit hours of coursework, of which a minimum of 12 hours must be upper division. A minimum of six upper-division credit hours must be completed through courses offered by the School of Mathematical and Natural Sciences. Credit hours may not be shared between major and minor requirements. All courses used to satisfy requirements for the minor must be passed with a "C" (2.00) or better.

Core Requirements -- 14 credit hours

[MAT 271: Calculus with Analytic Geometry II \(MATH OR MA\)](#) (4)

MAT 272: Calculus with Analytic Geometry III (MATH OR MA) (4)

MAT 300: Mathematical Structures (L) (3)

MAT 342: Linear Algebra or MAT 343: Applied Linear Algebra (3)

Upper-Division Electives -- 6 credit hours

MAT 310: Introduction to Geometry (3)

MAT 371: Advanced Calculus I (3)

MAT 411: History and Philosophy of Mathematics (HU & H) (3)

MAT 421: Applied Computational Methods (MATH OR CS) (3)

MAT 422: Mathematical Methods in Data Science (3)

MAT 443: Introduction to Abstract Algebra (3)

MAT 445: Theory of Numbers (3)

MAT 452: Introduction to Chaos and Nonlinear Dynamics (3)

MAT 461: Applied Complex Analysis (3)

MAT 462: Applied Partial Differential Equations (3)

MAT 472: Intermediate Real Analysis I (3)

MAT 494: Special Topics (1-4)

Prerequisite courses may be needed in order to complete the requirements of this minor.

Enrollment requirements

GPA Requirement: None

Incompatible Majors: BS in applied mathematics; BA or BS in mathematics; BS in applied mathematics for the life and social sciences

Other Enrollment Requirements: None

Current ASU undergraduate students may pursue a minor and have it recognized on their ASU transcript at graduation. Minor requirements appear on the degree audit once the minor is added. Certain major and minor combinations may be deemed inappropriate by the college or department of either the major or the minor program. Courses taken for the minor may not count toward both the major and minor.

Career opportunities

Mathematics is foundational and can be applied to many different types of careers. Math is a crucial part of engineering, life sciences, business, physics, economics and social sciences. These are just a few of the top careers possible with a minor in mathematics:

- cryptographer
- engineer

- financial analyst
- mathematician
- operations research analyst
- statistician
- teacher

Contact information

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