Applied Mathematics, Minor

LSAPMMIN

Study advanced math topics and learn to apply mathematical modeling, computational methods and statistics to real-world problems.

Description

The minor in applied mathematics in the College of Integrative Sciences and Arts at the Polytechnic campus is designed to enable students to understand and apply mathematics most commonly used in the fields of business, economics, engineering, physics, computer sciences, life sciences, social sciences and sustainability. The minor is recommended for students who plan to major in these diverse fields, are preparing for further graduate study or who wish for increased employment options.

The coursework explores the study of advanced applied mathematical topics with an emphasis on applied sciences. Students with a minor in applied mathematics learn to use theories and techniques, such as mathematical modeling, computational methods and statistics to resolve practical, real-world problems.

At a Glance

- **College/School:** College of Integrative Sciences and Arts
- **Location:** Polytechnic campus

Program Requirements

Minor Map (Archives)
2019 - 2020 Minor Map

The applied mathematics minor consists of 21 credit hours, including:

**Required Courses -- 9 credit hours**

MAT 265: Calculus for Engineers I (MA) or MAT 270: Calculus with Analytic Geometry I (MA) (3-4)
MAT 266: Calculus for Engineers II (MA) or MAT 271: Calculus with Analytic Geometry II (MA) (3-4)
MAT 275: Modern Differential Equations (MA) (3)

Electives -- 12 credit hours

MAT 267: Calculus for Engineers III (MA) or MAT 272: Calculus with Analytic Geometry III (MA) (3-4)
MAT 300: Mathematical Structures (L) (3)
MAT 310: Introduction to Geometry (3)
MAT 343: Applied Linear Algebra (3)
MAT 495: Supervised research in mathematical sciences (3)
MAT 499: Individualized Instruction (3)
STP 420: Introductory Applied Statistics (CS) (3)

At least six upper-division credit hours in elective courses must be offered by the College of Integrative Sciences and Arts.

A minimum of 12 credit hours of the minor must be ASU credit.

Depending on a student's undergraduate program of study, prerequisite courses may be needed in order to complete the requirements of this minor.

**Enrollment Requirements**

**GPA Requirement:** 2.00

**Incompatible Majors:** None

**Other Enrollment Requirements:** MAT 170 or 171 with a "C" or better, OR Mathematics Placement Test with a score of 60 percent or higher and the Advanced Math Placement Test with a score of 38 or higher, OR ALEKS score of 76 or higher

The minor in applied mathematics is open to all ASU undergraduate majors. Students should consult an advisor in the department of their major to determine if the minor is consistent with their educational goals and to be recognized in their particular major.

Current ASU undergraduate students may pursue a minor and have it recognized on their ASU transcript at graduation. Students interested in pursuing a minor should consult their academic advisor to declare the minor and to ensure that an appropriate set of courses is taken. 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 program or the minor. Courses taken for the minor may not count toward both the major and the minor. Students should contact their academic advisor for more information.