Study advanced math topics at the Polytechnic campus and learn to address problems with mathematical tools.

**Description**

The minor in applied mathematics in the College of Integrative Sciences and Arts enables 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)](#)

The applied mathematics minor consists of 21 credit hours, of which 12 must be upper-division. At least 12 credit hours of MAT courses must be offered by the College of Integrative Sciences and Arts, of which at least six credit hours must upper-division.
A minimum of 15 credit hours of the minor must be earned at ASU.

**Required Courses -- 12 credit hours**

- **MAT 266: Calculus for Engineers II (MA) or MAT 271: Calculus with Analytic Geometry II (MA)** (3-4)
- **MAT 267: Calculus for Engineers III (MA) or MAT 272: Calculus with Analytic Geometry III (MA)** (3-4)
- **MAT 275: Modern Differential Equations (MA)** (3)
- **MAT 343: Applied Linear Algebra** (3)

**Electives (choose three courses) -- 9 credit hours**

- **MAT 300: Mathematical Structures (L)** (3)
- **MAT 310: Introduction to Geometry** (3)
- **MAT 495: Undergraduate Research** or **MAT 499: Individualized Instruction** (3-4)
- **PHY 302: Mathematical Methods in Physics II** (3)
- **STP 420: Introductory Applied Statistics (CS)** (3)

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:** BA in applied mathematics

**Other Enrollment Requirements:** MAT 265 or 270 with a "C" or better.

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.

**Career Opportunities**
A minor can help students enhance the marketable skills they acquire in their major program and help them develop new skills apart from it, though most career areas do require more training than a minor alone can provide.

A minor in applied math can help students use mathematical modeling and computational methods as they pursue careers in biology, natural science management or pathology.

Contact Information

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