MATHEMATICS APPLICATIONS, MINOR

Requirements for a minor may be completed at any campus location offering the specified courses for the minor. Students may not change from a campus that offers their major to a campus that does not offer their major for the purpose of completing a minor.

Program Description

The minor in mathematics and its applications is designed to provide students with an interest in applied mathematics, and an opportunity to use mathematical tools and ways of thinking in their own major or area of concentration. The minor requires students to complete 26-28 credits in Mathematics with 6 credits from the 400-level MATH courses and 6 credits from the 400-level Mathematics Applications courses. The latter are selected in consultation with the coordinator of the minor and are from areas that directly incorporate or support the use of mathematics. Typical selections include computer science, engineering, physics, and statistics.

What is Mathematics Applications?

The minor in mathematics and its applications is designed to provide students with an interest in applied mathematics, and an opportunity to use mathematical tools and ways of thinking in their own major or area of concentration.

MORE INFORMATION ABOUT MATHEMATICS APPLICATIONS (https://altoona.psu.edu/academics/minor-programs/mathematics-applications/)

You Might Like This Program If…

You are majoring in a mathematically intensive major like computer science, engineering, physics, and statistics, or you simply enjoy mathematics. You want to sharpen your problem-solving skills. You are passionate about mathematics!

MORE INFORMATION ABOUT WHY STUDENTS CHOOSE TO STUDY MATHEMATICS APPLICATIONS (https://altoona.psu.edu/academics/minor-programs/mathematics-applications/)

Program Requirements

Requirement	Credits
Requirements for the Minor	26-28

Requirements for the Minor

A grade of C or better is required for all courses in the minor, as specified by Senate Policy 59-10 (https://senate.psu.edu/policies-and-rules-for-undergraduate-students/59-00-minors-and-certificates/#59-10). In addition, at least six credits of the minor must be unique from the prescribed courses required by a student's major(s).

Code	Title	Credits
Prescribed Courses		
Prescribed Courses: Require a grade of C or better		
MATH 140	Calculus With Analytic Geometry I	4
MATH 141	Calculus with Analytic Geometry II	4
Additional Courses		
Additional Courses: Require a grade of C or better		
Select 6-8 credits from the following:		6-8
MATH 220	Matrices	
MATH 230	Calculus and Vector Analysis	
MATH 231	Calculus of Several Variables	
MATH 232	Integral Vector Calculus	
MATH 250	Ordinary Differential Equations	
MATH 251	Ordinary and Partial Differential Equations	
MATH 310	Elementary Combinatorics	
MATH 311W	Concepts of Discrete Mathematics	
MATH 312	Concepts of Real Analysis	
Supporting Courses and Related Areas		
Supporting Courses and Related Areas: Require a grade of C or better		
Select 6 credits of 400-level MATH courses		6
Select 6 credits from 400-level Mathematics Applications courses [1]		6

[1] Mathematics Applications Courses: Through consultation with the coordinator of the minor, courses from areas that directly incorporate or support the use of mathematics will be selected. Typical areas include computer science, engineering, physics, and statistics. See divisional list of acceptable courses.

Academic Advising

The objectives of the university's academic advising program are to help advisees identify and achieve their academic goals, to promote their intellectual discovery, and to encourage students to take advantage of both in-and out-of class educational opportunities in order that they become self-directed learners and decision makers.

Both advisers and advisees share responsibility for making the advising relationship succeed. By encouraging their advisees to become engaged in their education, to meet their educational goals, and to develop the habit of learning, advisers assume a significant educational role. The advisee's unit of enrollment will provide each advisee with a primary academic adviser, the information needed to plan the chosen program of study, and referrals to other specialized resources.

READ SENATE POLICY 32-00: ADVISING POLICY (https://senate.psu.edu/policies-and-rules-for-undergraduate-students/32-00-advising-policy/)

Altoona

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Career Paths

Career Services supports and serves students and alumni, faculty and staff, families, and employers in all areas related to career development and preparation. We can assist in any of the following: Major and Career Exploration Career Decision-Making Preparation of Employment Documents Internship and Job Search Strategies Interview Preparation Preparing for Graduate School Developing your Professional Online Brand Presentations and Workshops.

MORE INFORMATION ABOUT POTENTIAL CAREER OPTIONS FOR GRADUATES WITH A MINOR IN MATHEMATICS APPLICATIONS (https:// altoona.psu.edu/offices-divisions/center-workforce-career-development/ career-services/)

Contact

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https://altoona.psu.edu/academics/divisions/mathematics-natural-sciences/administration-staff (https://altoona.psu.edu/academics/divisions/mathematics-natural-sciences/administration-staff/)