

# INFORMATION SCIENCES AND TECHNOLOGY FOR MATHEMATICS, 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 interaction between Information Sciences and Mathematics will continue developing in remarkable new directions. Mathematical scientists enormously benefit from information technology in the performance of research, in communicating and disseminating scientific information and results, as well as in career environments involving data analysis and management. Mathematicians also contribute to making inroads toward the development of new information technologies. Information sciences and technology are already playing a very important role in mathematical education, at all levels, and will experience an overwhelming increase in the near future. Giving undergraduate mathematics students the opportunity to minor in IST will not only enrich their educational achievements but it will also help them succeed in the employment searches.

## What is Information Sciences Technology and Mathematics?

Mathematical scientists utilize and benefit from information technology while conducting research, communicating and disseminating scientific information and results, as well as in career environments involving data analysis and management. Mathematicians also contribute to development of new information technologies. This minor in IST provides undergraduate mathematics students the opportunity to broaden their knowledge of information science technology and its use and intersection with mathematics.

## You Might Like This Program If...

- You like mathematics and want to learn more about information science and technology.
- You want to develop strong problem-solving skills, comprehension of abstract concepts, and creative thinking ability.
- You want mathematics and information science and technology to complement your study of other subjects.

## Entrance to the Minor

Students must apply for entrance to the minor no later than the beginning of their senior year.

## Program Requirements

Requirement	Credits
Requirements for the Minor	18

## 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 (<http://senate.psu.edu/policies-and-rules-for-undergraduate-students/59-00-minors-and-certificates/#59-10>).

Code	Title	Credits
<b>Prescribed Courses</b>		
<i>Prescribed Courses: Require a grade of C or better</i>		
IST 110	Information, People and Technology	3
IST 210	Organization of Data	3
IST 220	Networking and Telecommunications	3
<b>Additional Courses</b>		
<i>Additional Courses: Require a grade of C or better</i>		
Select three of the following 400-level mathematics courses:		9
MATH 451	Numerical Computations	
MATH 457	Introduction to Mathematical Logic	
MATH 465	Number Theory	
MATH 467	Factorization and Primality Testing	
MATH 468	Mathematical Coding Theory	

## 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 need to plan the chosen program of study, and referrals to other specialized resources.

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

## University Park

### Undergraduate Mathematics Office

#### Academic Advising

104 McAllister Building  
University Park, PA 16802  
814-865-7528  
[undergrad@math.psu.edu](mailto:undergrad@math.psu.edu)

## Contact

### University Park

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