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# Certification Program

## Secondary Education: Mathematics

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### THE PROGRAM

The certification program in Secondary Education: Mathematics is designed for an individual who holds a baccalaureate degree and wants to become certified to teach mathematics in Pennsylvania secondary schools (grades 7-12). The program is approved by the Pennsylvania Department of Education. Students who successfully complete the requirements will be recommended for the Secondary Mathematics Instructional I teaching certificate. Course work is required in both mathematics and education. The mathematics course requirements are currently under review and may be changed to assure compliance with Pennsylvania Department of Education standards.

### ADMISSION REQUIREMENTS

An applicant must present a baccalaureate degree from an accredited institution with a cumulative grade-point average of 3.0 or higher, and shall have 6 credits in college level mathematics and 6 credits in college level English composition and literature. (Effective 9/1/01)

Additionally, prospective students must successfully complete the four tests that comprise the Praxis I tests, published by Educational Testing Service.

An applicant whose language of instruction is not English is required to submit acceptable scores on the Test of English as a Foreign Language (TOEFL). A score of at least 550 (paper based) or 213 (computer based) is required. The test must have been taken within the last five years. The scores must be submitted before the application will be considered.

### APPLICATION PROCESS

Applications may be requested from the Penn State Harrisburg Admissions Office, (717) 948-6250 or (800) 222-2056.

Students are required to submit the following:

- a completed application
- two copies of official transcripts from all colleges/universities attended
- passing scores on the Praxis I tests (reading, writing, mathematics and listening skills)
- an application fee

### PROGRAM NOTES

A minimum grade of C is required in all courses for certification; however, a 3.0 grade point average is required to be eligible for student teaching. (Effective 9/1/01)

### OTHER QUESTIONS

If you have additional questions, please contact:

PENN STATE HARRISBURG  
GRADUATE ADMISSIONS  
777 WEST HARRISBURG PIKE  
MIDDLETOWN, PA 17057-4898  
(717) 948-6250 OR (800) 222-2056

PENN STATE HARRISBURG  
SCHOOL OF BEHAVIORAL SCIENCES AND  
EDUCATION  
777 WEST HARRISBURG PIKE  
MIDDLETOWN, PA 17057-4898  
(717) 948-6213

# Mathematics Certification Program

## PROGRAM REQUIREMENTS

The Mathematics certification program requires students to take courses in both mathematics and education. All courses required for certification, including an intensive field experience, must be completed with a grade of C or better prior to student teaching. The worksheet below lists the program requirements and will assist students in planning a program of studies. Students should examine their undergraduate transcripts to determine which courses may have already been completed that would satisfy the listed requirements and list the course taken in the space provided.

### EDUCATION REQUIREMENTS (24 Credits Required)

- EDUC 313: Field Observation/Participation (2 credits)..... \_\_\_\_\_
- EDUC 314: Learning Theory & Instructional Procedures (3 credits)..... \_\_\_\_\_  
(EDUC 313 & EDUC 314 must be taken concurrently; Fall Only)
- EDUC 315: Social and Cultural Factors in Education (3 credits) ..... \_\_\_\_\_  
(Certification students must enroll in the section reserved for prospective secondary teachers. Spring Only)
- EDUC 417 Teaching Secondary Mathematics (3 credits) ..... \_\_\_\_\_  
(Offered during Fall semester only)
  
- EDUC 435 Needs of Special Learners (1 credit) ..... \_\_\_\_\_
  
- EDUC 490 Student Teaching (12 credits) ..... \_\_\_\_\_  
(EDUC 395 & EDUC 435 must be taken concurrently)

\*Comp 351, Object-Oriented Programming for Mathematics and Science II

### MATHEMATICS COURSE REQUIREMENTS (26 Credits Required)

- MATH 140 Calculus I (4 credits)..... \_\_\_\_\_
- MATH 141 Calculus II (4 credits) ..... \_\_\_\_\_
- MA SC 370 Foundations of Mathematics (3 credits) ..... \_\_\_\_\_
- MA SC 422 Applied Statistics I (3 credits)..... \_\_\_\_\_
- MA SC 445 Euclidean Geometry and Transformations (3 credits) ..... \_\_\_\_\_
- MA SC 460 Linear Algebra and Discrete Models I (3 credits)..... \_\_\_\_\_
- MA SC 475 Introduction to the History of Mathematics (3 credits)..... \_\_\_\_\_
- MA SC 477 Mathematical Modeling (3 credits)..... \_\_\_\_\_
- OR
- MA SC 425 Operations Research (3 credits) ..... \_\_\_\_\_

### COMPUTER SCIENCE REQUIREMENT (6 Credits Required)

- 3 credit approved computer course (e.g., C++, Ada, Comp 351\*, Computers for Teachers)..... \_\_\_\_\_
- COMP 350 Object-Oriented Programming for Mathematics & Science I (3 credits) ..... \_\_\_\_\_