

MATHEMATICS, Associate in Science Degree - 4076

Mathematics & Computer Science Department

The Mathematics AS degree prepares students to transfer to four-year institutions offering degrees in mathematics, operations research, and statistics. Since the requirements of senior institutions vary widely, it is essential to choose an intended transfer institution as soon as possible and carefully follow the program described in that college's catalog. The complete program is available at the Harrisburg and Lancaster campuses. Students may also complete the program at the York Campus by taking courses through Virtual Learning.

Transfer Opportunities

This transfer curriculum is provided as a guide for students planning to transfer to a baccalaureate degree granting institution.

Competency Profile

The curriculum is designed to prepare students to:

- Demonstrate the relationship between mathematical and visual representations
- Demonstrate the connections between mathematical concepts
- Solve problems by developing mathematical models, analyzing data, and creating or applying algorithms
- Effectively communicate mathematical ideas and their applications
- Demonstrate the ability to communicate, create, and collaborate effectively using technologies in multiple modalities

PROGRAM REQUIREMENTS (TOTAL CREDITS = 60)

General Education		Major Requirements		Other Required Courses	
ENGL 101 English Composition I	3	CPS 121 Computer Science I: Intro to Computer Programming JAVA	3	Transfer Electives	17
ENGL 102 English Composition II (or)	3	MATH 125 Discrete Mathematics	3		
ENGL 104 Technical Writing	(3)	MATH 221 Calculus III	4		
COMM 101 Effective Speaking	3	MATH 220 Linear Algebra (or)	4		
Humanities & Arts Elective*	3	MATH 222 Differential Equations	(4)		
Mathematics Elective (MATH 121)	4		14		
Mathematics or Science Elective (MATH 122)	4				
Science w/ a Laboratory (PHYS 211)	4				
Social & Behavioral Science Elective	3				
First-Year Seminar Elective	1				
Wellness	$\frac{1}{29}$				

*Students select courses from the following: ART 181 or 182; ENGL 206; HUM 101, 115 or 201; MUS 104; PHIL 200; THTR 101; or a foreign language course.

RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester I		Spring Semester I		Fall Semester II		Spring Semester II	
COMM 101	3	CPS 121	3	MATH 125	3	MATH 220 or 222	4
ENGL 101	3	ENGL 102 or 104	3	MATH 221	4	Science w/ a Lab Elective	4
FYS Elective	1	Humanities & Arts Elective	3	Social/Behavioral Science Elective	3	Transfer Electives	8
Mathematics Elective	4	Math/Science Elective	4	Transfer Elective	3		
Transfer Elective	3	Transfer Elective	3	Wellness	1		