MATHEMATICS, Associate in Science Degree - 4076

Mathematics & Computer Science Department
CIP Code: 27.0101

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. Students may complete this program at the Harrisburg, Lancaster and York campuses through various modalities (e.g., on-campus/in-person instruction, hybrid, synchronous remote instruction and/or asynchronous instruction).

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:
- Analyze and apply mathematical concepts and their connection between multiple representations
- Develop mathematical models, analyze data and create or apply algorithms to solve problems
- Explain mathematical ideas and justify them formally
- Employ technology to assist in problem solving

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	**16**
ENGL 102 English Composition II **(or)**	3	MATH 125 Discrete Mathematics	4		
ENGL 104 Technical Writing	(3)	MATH 221 Calculus III	4		
COMM 101 Effective Speaking	3	MATH 220 Linear Algebra **(or)**	4		
Humanities & Arts Core Elective*	3	MATH 222 Differential Equations	(4)		
Mathematics Core Elective - *MATH 121*	4		**15**		
Mathematics **or** Science Core Elective - *MATH 122*	4				
Science w/ a Laboratory Core Elective - *PHYS 211*	4				
Social & Behavioral Science Core Elective	3				
First-Year Seminar Elective	1				
Wellness Elective	1				
	29				

Students select courses from the following: ART 181 or 182; ENGL 206; FMTH 101; HUM 101, 115 or 201; MUS 104; PHIL 200; 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	4	MATH 220 **or** 222	4
ENGL 101	3	ENGL 102 **or** 104	3	MATH 221	4	PHYS 211	4
FYS Elective	1	Humanities & Arts Core Elective*	3	Social/Behavioral Science Core Elective	3	Transfer Electives	7
MATH 121	4	MATH 122	4	Transfer Elective	3		
Transfer Elective	3	Transfer Elective	3	Wellness Elective	1		