

Associate in Science in Science, Engineering and Math Professional

Program Outcomes

Upon completion of this degree, students will be able to think critically, understand fundamental concepts in math and science, and display sound problem-solving techniques.

Employment Opportunities or Additional Educational Options

This degree prepares students for transfer to four-year institutions for further study in math and engineering. Please talk to your advisor frequently to ensure you select options that are right for your future.

To Learn More About This Program

Contact Andrew Dohm at 269-782-1255 or adohm@swmich.edu.

Degree Requirements

To earn this degree, students must have an overall GPA of 2.0 or higher, complete a minimum of 60 credit hours, and fulfill the course requirements of the program listed below. Students, working closely with their advisor, are permitted to substitute the courses in the General Education and MTA Courses section below according to the guidelines on page 34 of this catalog. Each general education course, prerequisite course, internship/practicum, and capstone course must be completed with a final grade of "C" or better.

General Education and MTA Courses

COMMUNICATIONS

Course ID	Course	Credits
ENGL 103 or ENGL 103W	Freshman English 2 (or with workshop)	3 to 4 credits
SPEE 104	Intro to Human Communication	3 credits

MATHEMATICS

Course ID	Course	Credits
MATH 130	Precalculus Mathematics	5 credits

NATURAL SCIENCE

Course ID	Course	Credits
CHEM 101	General Chemistry 1	5 credits
CHEM 102	General Chemistry 2	5 credits
MATH 141	Analytical Geometry and Calculus 1	5 credits
PHYS 201	General Physics 1	5 credits

SOCIAL SCIENCE

Course ID	Course	Credits
POSC 201	American Government	3 credits
SOCI 201	Principles of Sociology	3 credits

HUMANITIES

Course ID	Course	Credits
ART 110	Art Appreciation	3 credits
PHIL 201	Introduction to World Religion	3 credits

Major-specific Required Courses

Course ID	Course	Credits
EDUC 120	Educational Exploration and Planning	1 credit
MATH 142	Analytical Geometry and Calculus 2	5 credits
MATH 201	Calculus 3	5 credits
MATH 205	Differential Equations and Linear Algebra	4 credits
PHYS 202	General Physics 2	5 credits

Total Program Credits: 63

Additional Notes About the A.S. in Science, Engineering and Math Professional Program

- A prerequisite course may be needed prior to enrollment in some courses within this program. Specific prerequisite requirements are listed in the Course Description section in the Course Catalog. A summary of the prerequisites are listed below in the Example Course Sequence section.
- This program as outlined meets MTA requirements.
- Courses taken out of sequence may delay a student's ability to complete the program in a timely manner. Please consult your advisor regularly.
- Each student should submit a graduation application at least one full semester before he/she plans to graduate.
- This program is subject to change. Students should consult with their advisor for program updates.

Example Course Sequence

The following is a sample of a semester-by-semester approach to completing this program.

FIRST SEMESTER

Courses	Credits	Prerequisites (Minimum Grade of "C" Required)
EDUC 120 Educational Exploration and Planning	1 credit	ENGL 115 or test score (concurrent enrollment allowed)
ENGL 103 or ENGL 103W Freshman English 2 (or with workshop)	3 to 4 credits	ENGL 115 or test score (concurrent enrollment allowed)
CHEM 101 General Chemistry 1	5 credits	MATH 127 or test score (concurrent enrollment allowed); CHEM 100, or one year of high school chemistry with minimum grade of B taken within the last 5 years, or test score; ENGL 115 or test score (concurrent enrollment in ENGL 115 allowed)
MATH 130 Precalculus Mathematics	5 credits	MATH 127 or test score

SECOND SEMESTER

Courses	Credits	Prerequisites (Minimum Grade of "C" Required)
POSC 201 American Government	3 credits	ENGL 115 or test score (concurrent enrollment allowed)
SPEE 104 Introduction to Human Communication	3 credits	ENGL 115 or test score (concurrent enrollment allowed)
CHEM 102 General Chemistry 2	5 credits	CHEM 101 and MATH 127 or test score
MATH 141 Analytical Geometry and Calculus 1	5 credits	MATH 130 or test score

SUMMER

Courses	Credits	Prerequisites (Minimum Grade of "C" Required)
MATH 142 Analytical Geometry and Calculus 2	5 credits	MATH 141

THIRD SEMESTER

Courses	Credits	Prerequisites (Minimum Grade of "C" Required)
ART 110 Art Appreciation	3 credits	ENGL 115 or test score (concurrent enrollment allowed)
MATH 205 Differential Equations and Linear Algebra	4 credits	MATH 142
PHYS 201 General Physics 1	5 credits	MATH 141

FOURTH SEMESTER

Courses	Credits	Prerequisites (Minimum Grade of "C" Required)
PHIL 201 Introduction to World Religion	3 credits	ENGL 115 or test score (concurrent enrollment allowed)
SOCI 201 Principles of Sociology	3 credits	ENGL 115 or test score (concurrent enrollment allowed)
MATH 201 Calculus 3	5 credits	MATH 142
PHYS 202 General Physics 2	5 credits	PHYS 201

