

Focus Areas:
Architecture,
Engineering,
Mathematics,
Engineering Technology,
Actuary Science

MATHEMATICS & ENGINEERING

Department Chair: Mark Whisler
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Employment:
\$60,000-\$100,000
(with bachelor's degree)



Potential Careers:

- **Data Analyst**
- **Civil Engineer**
- **Chemical Engineer**
- **Electrical or Mechanical Engineer**
- **Actuary**
- **Architect**

Mathematics is the study of numbers, equations, functions, and geometric shapes and their relationships. Engineering combines mathematical theory, practical design theory, and scientific computing to address today's technological challenges.

While there may be some opportunities for employment after two years, many careers require a Bachelor of Science degree. Students planning to complete a four-year degree should enroll in the A.S. program.

Degrees & Certificates

Associate of General Studies..... A.G.S. - 62 hours Associate of Science A.S. - 62 hours

Fields of Study

MATHEMATICS & ENGINEERING

Associate of General Studies
62 Hours

Required General Education Courses 25 cr		Required Mathematics and Engineering Courses 13 cr	
<i>Communication Requirement</i>	6	MA112 Trigonometry	3
CM101 English Composition I (3 cr)		MA120 Calculus I	5
CM115 Public Speaking (3 cr) <i>or</i>		MA121 Calculus II	5
CM240 Interpersonal Communications (3 cr)			
<i>Mathematics Requirement</i>	3	Elective Courses 18 cr	
Mathematics General Education Course <i>or</i>		Math	
MA110 Intermediate Algebra (3 cr)		MA122 Calculus III	5
<i>Humanities Requirement</i>	3	MA123 Differential Equations	4
Art Humanities		MA220 Cooperative Education Internship	2
Music Literature		Science	
Theatre Philosophy		SC104 Geology	4
Foreign Language History		SC107 Meteorology	4
<i>Social/Behavioral Science Requirement</i>	3	SC132 Chemistry II	5
Economics Anthropology		SC134 Organic Chemistry I	5
Psychology Political Science		SC135 Organic Chemistry II	5
Sociology Geography		SC140 College Physics I	5
<i>Humanities or Social Science Requirement</i>	3	SC141 College Physics II	5
(Must be from second area)		SC142 University Physics I	5
<i>Natural Science Requirement</i>	4	SC143 University Physics II	5
Physical Science w/lab <i>or</i>		SC151 Principles of Biology II	5
Biological Science w/lab		Business	
<i>Open General Education Elective</i>	3	BE100 Introduction to Business	3
		BE153 Personal Finance	3
		BE160 Business Accounting	3
		BE170 Business Statistics	3
		Additional Electives	
		CS108 Computer Applications	3
		CS155 Networking and Computer Technology	3
		CA221 Job Search	1
		SE100 Introduction to Solar Energy	3
		UA100 Introduction to UAV's	3
		WE100 Introduction to Wind Energy	3
		Life Skills	
		BE139 Basic Personal Finance	1
		BE210 Leadership Development	3
		MG102 Introduction to Entrepreneurship	3
		PE250 Stress Management	3
		SS106 Marriage and Family	3
		Open Electives 6 cr	

Fields of Study

MATHEMATICS & ENGINEERING

Associate of Science 62 Hours

Required General Education Courses		33 cr	Elective Courses		10 cr
<i>Communication Requirement</i>		9	Math		
CM101	English Composition I (3 cr)		MA122	Calculus III	5
CM102	English Composition II (3 cr)		MA123	Differential Equations	4
CM115	Public Speaking (3 cr) <i>or</i>		MA220	Cooperative Education Internship	1-2
CM240	Interpersonal Communications (3 cr)			Science	
<i>Humanities Requirement (2 areas required)</i>		6	SC104	Geology	4
Art	Humanities		SC107	Meteorology	4
Music	Literature		SC132	Chemistry II	5
Theatre	Philosophy		SC134	Organic Chemistry I	5
Foreign Language	History		SC135	Organic Chemistry II	5
<i>Mathematics Requirement</i>		3	SC140	College Physics I	5
Mathematics General Education Course			SC141	College Physics II	5
<i>Natural Science Requirement (2 areas required)</i>		9	SC142	University Physics I	5
SC131	Chemistry I (5 cr)		SC143	University Physics II	5
*Biological Science	(4 cr)		SC151	Principles of Biology II	5
<i>*(Physical Science majors should consult their advisor about a substitution of a physical science)</i>				Business	
<i>Social/Behavioral Science Requirement</i>		6	BE100	Introduction to Business	3
EC101	Principles of Macroeconomics (3 cr)		BE153	Personal Finance	3
<i>(1 additional area required) (3 cr)</i>			BE160	Business Accounting	3
Anthropology	Geography		BE170	Business Statistics	3
Psychology	Political Science			Additional Electives	
Sociology			CS108	Computer Applications	3
Required Mathematics and Engineering Courses 13 cr			CS155	Networking and Computer Technology	3
MA112	Trigonometry	3	Open Electives		6 cr
MA120	Calculus I	5			
MA121	Calculus II	5			