

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**

Program/General Learning Outcomes:

1. Recognize the mathematical concepts that are applicable to a scenario.
2. Apply technology in analysis.
3. Accurately interpret, validate, and communicate the result.

DEGREES & CERTIFICATES

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

Associate of Science A.S. - 62 hours

MATHEMATICS AND ENGINEERING

Associate of General Studies 62 Hours

Required General Education Courses 25 cr

<i>Communication Requirement</i>	6
CM101 English Composition I (3 cr)	
CM115 Public Speaking (3 cr) or	
CM240 Interpersonal Communications (3 cr)	

<i>Mathematics Requirement</i>	3
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Mathematics General Education Course **or**
MA110 Intermediate Algebra (3 cr)

<i>Humanities Requirement</i>	3
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Art	Humanities
Music	Literature
Theatre	Philosophy
Foreign Language	History

<i>Social/Behavioral Science Requirement</i>	3
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Economics	Anthropology
Psychology	Political Science
Sociology	Geography

<i>Humanities or Social Science Requirement</i> (Must be from second area)	3
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<i>Natural Science Requirement</i>	4
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Physical Science w/lab **or**
Biological Science w/lab

<i>Open General Education Elective</i>	3
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Required Mathematics and Engineering Courses 13 cr

MA112	Trigonometry	3
MA120	Analytic Geometry and Calculus I	5
MA121	Analytic Geometry and Calculus II	5

Elective Courses 18 cr

Math

MA122	Analytic Geometry and Calculus III	5
MA123	Differential Equations	4
MA220	Cooperative Education Internship	2

Science

SC104	Geology	4
SC107	Meteorology	4
SC131	Chemistry I	5
SC132	Chemistry II	5
SC140	College Physics I	5
SC141	College Physics II	5
SC142	University Physics I	5
SC143	University Physics II	5
SC151	Principles of Biology II	5

Business

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	Intro to Solar Energy	3
UA100	Intro to sUAS	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



MATHEMATICS AND 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)		MA114 Elementary Statistics	3
CM102 English Composition II (3 cr)		MA122 Analytic Geometry and Calculus III	5
CM115 Public Speaking (3 cr) or		MA123 Differential Equations	4
CM240 Interpersonal Communications (3 cr)		MA220 Cooperative Education Internship	1-2
<i>Humanities Requirement (2 areas required)</i>	6	Science	
Art Humanities		SC104 Geology	4
Music Literature		SC107 Meteorology	4
Theatre Philosophy		SC132 Chemistry II	5
Foreign Language History		SC140 College Physics I	5
<i>Mathematics Requirement</i>	3	SC141 College Physics II	5
Mathematics General Education Course		SC142 University Physics I	5
<i>Natural Science Requirement (2 areas required)</i>	9	SC143 University Physics II	5
SC131 Chemistry I (5 cr)		SC151 Principles of Biology II	5
*Biological Science (4 cr)		Business	
<i>*(Physical Science majors should consult their advisor about a substitution of a physical science)</i>		BE100 Introduction to Business	3
<i>Social/Behavioral Science Requirement</i>	6	BE153 Personal Finance	3
EC101 Principles of Macroeconomics (3 cr)		BE160 Business Accounting	3
(1 additional area required) (3 cr)		Additional Electives	
Anthropology Geography		CS108 Computer Applications	3
Psychology Political Science		CS155 Networking and Computer Technology	3
Sociology		Open Electives	6 cr

Required Mathematics and Engineering Courses 13 cr

MA112 Trigonometry	3
MA120 Analytic Geometry and Calculus I	5
MA121 Analytic Geometry and Calculus II	5

