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)

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 maybe 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.

Potential Careers:

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

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

Communication Requirement — 6
  CM101 English Composition I (3 cr)
  CM115 Public Speaking (3 cr) **or**
    CM240 Interpersonal Communications (3 cr)

Mathematics Requirement — 3
  Mathematics General Education Course or
    MA110 Intermediate Algebra (3 cr)

Humanities Requirement — 3
  Art   Humanities
  Music   Literature
  Theatre   Philosophy
  Foreign Language   History

Social/Behavioral Science Requirement — 3
  Economics   Anthropology
  Psychology   Political Science
  Sociology   Geography

Humanities **or** *Social Science Requirement* — 3
  (Must be from second area)

Natural Science Requirement — 4
  Physical Science w/lab **or**
    Biological Science w/lab

Open General Education Elective — 3

Required Mathematics and Engineering Courses — 13 cr

MA112	Trigonometry	3
MA120	Calculus I	5
MA121	Calculus II	5

Elective Courses — 18 cr

Math

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

Science

SC104	Geology	4
SC107	Meteorology	4
SC132	Chemistry II	5
SC134	Organic Chemistry I	5
SC135	Organic 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 UAV's	3
WE100	Intro to Wind	3

Life Skills

BE139	Basic Personal Finance	1
BE210	Leadership Development	3
MG102	Small Business Management	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

Communication Requirement   *9*
- CM101 English Composition I (3 cr)
- CM102 English Composition II (3 cr)
- CM115 Public Speaking (3 cr) **or**
  - CM240 Interpersonal Communications (3 cr)

Humanities Requirement (2 areas required)   *6*

Art	Humanities
Music	Literature
Theatre	Philosophy
Foreign Language	History

Mathematics Requirement   *3*
- Mathematics General Education Course

Natural Science Requirement (2 areas required)   *9*
- SC131 Chemistry I (5 cr)
- *Biological Science (4 cr)

  (Physical Science majors should consult their advirsor about a substitution of a physical science)

Social/Behavioral Science Requirement   *6*
- EC101 Principles of Macroeconomics *(3 cr)*
- *(1 additional area required)*   *(3 cr)*

Anthropology	Geography
Psychology	Political Science
Sociology	

Required Mathematics and Engineering Courses   13 cr

MA112	Trigonometry	3
MA120	Calculus I	5
MA121	Calculus II	5

Elective Courses   10 cr

Math

MA122	Calculus III	5
MA123	Differential Equations	4
MA220	Cooperative Education Internship	1-2

Science

SC104	Geology	4
SC107	Meteorology	4
SC132	Chemistry II	5
SC134	Organic Chemistry I	5
SC135	Organic 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

Open Electives   6 cr