

Focus Areas:

**Architecture,
Engineering,
Mathematics,
Engineering Technology,
Actuary Science**

MATHEMATICS & ENGINEERING

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Potential Careers:

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

Program/General Education 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 Science A.S. - 62 hours

MATHEMATICS AND ENGINEERING

Associate of Science 62 Hours

Required General Education Courses 34-35 cr

<i>English Discipline Area (010)</i>	6
CM101 English Composition I (3 cr)	
CM102 English Composition II (3 cr)	
<i>Communication Discipline Area (020)</i>	3
CM115 Public Speaking (3 cr) or	
CM240 Interpersonal Communications (3 cr)	
<i>Mathematics and Statistics Discipline Area (030)</i>	3
MA111 College Algebra (3 cr)	
<i>Natural and Physical Science Discipline Area (040)</i>	4-5
SC131 Chemistry I (5 cr) (suggested)	
<i>Social and Behavioral Discipline Area (050)</i>	6
(2 areas required)	
Anthropology	Economics*
Geography	Psychology
Political Science	Sociology
*EC101 Principles of Macroeconomics (3 cr) (suggested)	
<i>Arts and Humanities Discipline Area (060)</i>	6
(2 areas required)	
Art	Literature
Foreign Language	Music
History	Philosophy
Humanities	Theatre
<i>Institutionally Designated Area Elective (070)</i>	6
SD100 College Skills (1 cr) (suggested)	
SC132 Chemistry II (5 cr) (suggested)	

Required Mathematics and Engineering Courses 13 cr

Choose 13 hours from the following:

MA112 Trigonometry	3
MA120 Analytic Geometry and Calculus I	5
MA121 Analytic Geometry and Calculus II	5
SC142 University Physics I	5
SC143 University Physics II	5

Elective Courses 10 cr

Math		
MA114 Elementary Statistics		3
MA120 Analytic Geometry and Calculus I		5
MA121 Analytic Geometry and Calculus II		5
MA122 Analytic Geometry and Calculus III		5
MA123 Differential Equations		4
MA220 Cooperative Education Internship		1-2
Science		
SC104 Geology		4
SC107 Meteorology		4
SC101 General Biology		4
SC110 Principles of Biology I		4
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
Additional Electives		
CM121 Introduction to Literature		3
CS108 Computer Applications		3
CS155 Networking and Computer Technology		3
EC102 Principles of Microeconomics		3

Open Electives 4-6 cr

Any non-technical, non-developmental course can be used to fulfill the requirements of the Associate of Science degree.

