

DEGREE MAP

The following sequence is an example of how this degree can be completed in two years. This sequence is based on satisfaction of all Basic Skills requirements and prerequisites, and presumes a fall start date. An individual's program may vary depending on transfer institution, career objectives, or individual needs. See your counselor for other options and to monitor your progress.

Program Name: Engineering-Associate of Science Degree

Location(s) Offered:

Sierra Vista Campus

Learning Outcomes: *Students who successfully complete this program will be able to do the following:*

1. Demonstrate the ability to apply mathematics and science knowledge and skills in an engineering context.
2. Design a system, components, or process to meet given specifications and constraints, including economic, environmental, social, political, ethical, health and safety, manufacturing, and sustainability issues.
3. Demonstrate an understanding of professional and ethical responsibility.
4. Exhibit the ability to function on multidisciplinary teams.
5. Demonstrate a knowledge of the techniques, skills, and modern engineering tools necessary for engineering practice.

Course or program prerequisite(s) not included in the degree:

CHM 151 General Chemistry I requires CHM 130 Fundamental Chemistry, CHM 138 Chemistry for Allied Health, or one year of high school chemistry; and MAT 123 Developmental Mathematics Level III or higher.
EGR 102 Principles of Engineering requires MAT 151 College Algebra and MAT 182 Precalculus Trigonometry, or MAT 187 Precalculus, or concurrent enrollment in MAT 220 Calculus I.
MAT 220 Calculus I requires appropriate mathematics placement score (or see advisor), MAT 187 Precalculus, or both MAT 151 Precalculus Algebra and MAT 182 Precalculus Trigonometry.
PHY 230 Physics with Calculus I requires PHY 111 General Physics or one year of high school physics.
This program requires RDG 122 Reading Critically or exemption.

Program Reviewed: Feb 22, 2016

Key:

IW=Intensive Writing
F2F=Face-to-Face Instruction
ITV=Instructional Television
VC=Virtual Campus/Online

<i>Requirements</i>	<i>Course(s) Recommended</i>	<i>Delivery Method</i>	<i>Credits</i>
First Semester (Fall):			
Core Curriculum	EGR 102 Principles of Engineering	F2F	3
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Lab Sciences	CHM 151 General Chemistry I	F2F	4
General Education-Mathematics	MAT 220 Calculus I	F2F,VC	5
General Education-Social & Beh Sciences		F2F,VC	3
Second Semester (Spring):			
Core Curriculum	EGR 122 Programming for Engineering and Science	F2F	4
Core Curriculum	MAT 231 Calculus II	F2F	4
General Education-Composition	ENG 102 English Composition	F2F, VC	3
General Education-Lab Sciences	CHM 152 General Chemistry II	F2F	4
General Education-Social & Beh Sciences		F2F, VC	3
Third Semester (Fall):			
Core Curriculum	COM 102 Essentials of Communication	F2F	3
Core Curriculum	PHY 230 Physics with Calculus I	F2F	4
General Education-Add Math/Lab Science	MAT 262 Differential Equations	F2F	3
General Education-Arts		F2F, VC	3
Fourth Semester (Spring):			
Core Curriculum	PHY 231 Physics with Calculus II	F2F	4
General Education-Add Math/Lab Science	MAT 241 Calculus III	F2F	4
General Education-Humanities		F2F,VC	3
Elective*		F2F,VC	4

Total credits required: 64

Notes:

Six credits of arts, humanities, or social behavioral sciences must be chosen from the current listing of intensive writing courses. See www.cochise.edu/AGEC.

*Elective courses must be transferable to the university or universities to which the student plans to transfer. See www.aztransfer.com.