COCHISE COLLEGE

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: Chemistry-Associate of Science Degree

Location(s) Offered:

Sierra Vista Campus (The first two semesters of this degree can be completed on the Douglas Campus.)

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

1. Calculate the pH, pOH, and the concentration of hydrogen ions and hydroxide ions for strong and weak acid and base solutions.
2. Find the solubility of a solute using the solubility product constant and explain the effect a common ion has on solubility.
3. Perform an acid-base titration to find the molarity of an acid solution using a base that has been standardized.
4. Identify and describe patterns of functional group reactivity through the development of logical mechanistic schemes.
5. Successfully complete the synthesis of organic products and their analysis by characterization of their functional groups.

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.
ENG 101 Composition requires appropriate English placement score (or see advisor).
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

Requirements	*Course(s) Recommended*	*Delivery Method*	*Credits*
First Semester (Fall):			
General Education-Add Math/Lab Science	CHM 151 General Chemistry I	F2F	4
General Education-Composition	ENG 101 Composition	F2F,VC	3
General Education-Mathematics	MAT 220 Calculus I or higher	F2F,VC	3-5
General Education-Social & Beh Sciences		F2F,VC	3
Second Semester (Spring):			
Core Curriculum	MAT 231 Calculus II	F2F	4
General Education-Add Math/Lab Science	CHM 152 General Chemistry II	F2F	4
General Education-Composition	ENG 102 English Composition	F2F,VC	3
Elective*		F2F,VC	3
Elective*		F2F,VC	3
Third Semester (Fall):			
Core Curriculum	CHM 235 Organic Chemistry I	F2F	4
General Education-Arts		F2F,VC	3
General Education-Lab Sciences	PHY 230 Physics with Calculus I	F2F	4
General Education-Social & Beh Sciences		F2F,VC	3
Elective*		F2F,VC	3
Fourth Semester (Spring):			
Core Curriculum	CHM 236 Organic Chemistry II	F2F	4
General Education-Humanities		F2F,VC	3
General Education-Lab Sciences	PHY 231 Physics with Calculus II	F2F	4
Elective*		F2F,VC	4-6

Total credits required: 64

Notes:

Six credits of arts, humanities, or social and behavioral sciences must be chosen for 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.

With summer school enrollment a student may be able to start in developmental math or MAT 187 and finish the program in four fall/spring semesters. Students should be aware that higher-level math courses are only offered in the summer based on demand, and cannot be guaranteed.