

## PROGRAM COURSE PATHWAY

The following sequence is the suggested pathway to complete the degree 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 academic advisor for other options and to monitor your progress.

*Program Name: CHEMISTRY, AS*

### *Program Learning Outcomes (PLOs):*

1. Graduates will utilize critical thinking skills and problem solving skills, including the scientific method and methods of scientific conversion in everyday life (3, 4, 5, 6).
2. Graduates will demonstrate mastery of the fundamental concepts of both inorganic and organic chemistry, including the chemical laws of nature, solutions, acids and bases, kinetics, equilibrium, and thermochemistry, functional groups, reactions, syntheses and mechanisms (2, 3, 4, 5, 6).
3. Graduates will prepare, present, and analyze chemical data in any scientific format (3, 5, 6).
4. Graduates will perform chemical experiments in a safe and scientific manner, using proper scientific and laboratory safety procedures (3, 5, 6).
5. Graduates will fulfill general education requirements for further education in Chemistry related disciplines at University level (Analytical chemist, Chemical engineer, Healthcare scientist, Clinical biochemistry, Forensic scientist, Pharmacologist, Toxicologist, Environmental consultant, Higher education lecturer, Patent attorney, Research Scientist, etc.) (1, 2, 3, 4, 5, 6).

Courses – Asterisk (*) indicates required program courses	AGEC course?	Terms**	Credits
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#### ***First Semester: FALL***

BIO 181	YES	F	4
CHM 151*	YES	F	4
MAT 221*	YES	F	4
ENG 101*	YES	F, SP, SU	3

#### ***Second Semester: SPRING***

ENG 102*	YES	F, SP, SU	3
CHM 152*	YES	SP	4
MAT 231*	YES	SP	4
PHY 115*	YES	SP	5

#### ***Third Semester: FALL***

PHY 116 *	YES	F	5
GLG 110	YES	F, SP, SU	4
PSY 101	YES	F, SP, SU	3
CHM 235*	YES	F	4

#### ***Fourth Semester: SPRING***

CHM 236*	YES	SP	4
HUM 151	YES	SP	3
PHI 101	YES	F, SP	3
ENV 101	YES	F, SP, SU	4
SOC 131	YES	F, SP, SU	3

**Key:**

SP= Spring

F= Fall

SU= Summer

1. Aesthetic Sensibilities: An awareness of creative expression in the world around us.
2. Communication Skills: The ability to effectively convey meaning through various media on both personal and professional levels.
3. Critical Thinking Skills and Problem-Solving: The ability to analyze data and arrive at logical and defensible conclusions.
4. Cultural Diversity and Global Awareness: An appreciation of relationships and differences in values, customs, and norms of diverse global communities.
5. Techniques of Inquiry: Use of standardized methodological framework to collect, analyze, interpret, and present findings.
6. Technological Competency: A proficiency in evolving technology to compete and flourish in society.

**Total credits****64**

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**Optional Courses:****Elective Options: 3-4**

After consulting with an advisor, choose **3-4** transferrable\* credits from the Course Equivalency Guide excluding courses already used for the AGEC-S. Please choose the **Mohave Community College** link.

\*A transferrable course is defined as an MCC course that transfers to all three Arizona state universities (Arizona State University, Northern Arizona University, and University of Arizona).

\*\*terms not guaranteed