

### Universal General Education Transfer Component (UGETC)

English Composition (6 SCH) <span style="float: right;">The following two English composition courses are required.</span>							
Prefix	Course Name	Credit Hours	Pre-requisites	University Course Equivalent	Credit Hours	Required or Preferred by Major	Notes
ENG 111	Expository Writing	3	None	RC 1000	3	Required	
ENG 112	Argument-Based Research	3	ENG 111	RC 2001	3	Required	
<b>Total Credit Hours Required</b>		<b>6</b>			<b>6</b>		

Humanities/Fine Arts (6 SCH) <span style="float: right;">Students will select two courses from at least two different disciplines:</span>							
Prefix	Course Name	Credit Hours	Pre-requisites	University Course Equivalent	Credit Hours	Required or Preferred by Major	Notes
ART 111	Art Appreciation	3	None	ART 2011	3		
ART 114	Art History Survey I	3	None	ART 2030	3		
ART 115	Art History Survey II	3	None	ART 2130	3		
COM 231	Public Speaking	3	None	COM 2101	3		
ENG 231	American Literature I	3	ENG 112, 113 or 114	ENG 2350	3		
ENG 232	American Literature II	3	ENG 112, 113 or 114	ENG 2350	3		
MUS 110	Music Appreciation	3	None	MUS 2011	3		
MUS 112	Introduction to Jazz	3	None	MUS 2014	3		
PHI 215	Philosophical Issues	3	ENG 111	PHL Elective	3		
PHI 240	Introduction to Ethics	3	ENG 111	PHL 2000	3		
<b>Total Credit Hours Required</b>		<b>6</b>			<b>9</b>		

Social /Behavioral Science (6 SCH) <span style="float: right;">Students will select two courses from at least two different disciplines:</span>							
Prefix	Course Name	Credit Hours	Pre-requisites	University Course Equivalent	Credit Hours	Required or Preferred by Major	Notes
ECO 251	Principles of Microeconomics	3	None	ECO 2030	3		
ECO 252	Principles of Macroeconomics	3	None	ECO 2040	3		
HIS 111	World Civilizations I	3	None	HIS 1101	3		
HIS 112	World Civilizations II	3	None	HIS 1102	3		
HIS 131	American History I	3	None	HIS 1200	3		
HIS 132	American History II	3	None	HIS 1200	3		
PSY 150	General Psychology	3	None	PSY 1200	3		
POL 120	American Government	3	None	P S 1100	3		
SOC 210	Introduction to Sociology	3	None	SOC 1000	3		
<b>Total Credit Hours Required</b>		<b>6</b>			<b>6</b>		

Mathematics (8 SCH) <span style="float: right;">Students will select two course from the following:</span>							
Prefix	Course Name	Credit Hours	Pre-requisites	University Course Equivalent	Credit Hours	Required or Preferred by Major	Notes
MAT 171	Precalculus Algebra	4	None	MAT 1020	4		
MAT 172	Precalculus Trigonometry	4	MAT 171	GEP MAT	4		
MATH 263	Brief Calculus	4	MAT 171	MAT 1030	4		
MATH 271	Calculus I	4	MAT 172	MAT 1110	4	Required	
<b>Total Credit Hours Required</b>		<b>8</b>			<b>8</b>		

Natural Sciences (8 SCH) <span style="float: right;">Students will select 8 SCH from the following courses:</span>							
Prefix	Course Name	Credit Hours	Pre-requisites	University Course Equivalent	Credit Hours	Required or Preferred by Major	Notes
AST 151/151A	General Astronomy I and lab I	4	None	AST 1001	4		
BIO 110	Principles of Biology	4	None	BIO 1201/BIO 1204	4		
BIO 111	General Biology I	4	None	BIO 1201/BIO 1204	4		must take both BIO 111 and BIO 112
BIO 112	General Biology II	4	BIO 111	BIO 1202/BIO 1205	4		must take both BIO 111 and BIO 112
CHM 151	General Chemistry I	4	None	CHE 1101/CHE 1110	4	Required	must take both CHM 151 and CHM 152
CHM 152	General Chemistry II	4	CHM 151	CHE 1102/CHE 1120	4	Required	must take both CHM 151 and CHM 152
GEL 111	Introduction Geology	4	None	GLY 1101	4		
PHY 110/110A	Conceptual Physics and Lab	4	None	PHY 1100	4		must take course with lab
PHY 151	College Physics I	4	MAT 171	PHY 1103	4		must take PHY 151 and PHY 152
PHY 152	College Physics II	4	PHY 151	PHY 1104	4		must take PHY 151 and PHY 152
PHY 251	General Physics I	4	MAT 271	PHY 1150	4		must take PHY 251 and PHY 252
PHY 252	General Physics II	4	MAT 272 <b>and</b> PHY 251	PHY 1151	4		must take PHY 251 and PHY 252
<b>Total Credit Hours Required</b>		<b>8</b>			<b>8</b>		

**Total UGETC Hours**

**34**

**34**

**Additional General Education Courses (11-12 SHC) : These courses must be classified as UGETC or general education within the CAA.**

Prefix	Course Name	Credit Hours	Pre-requisites	University Course Equivalent	Credit Hours	Category	Notes
PHY 251	General Physics I	4	MAT 271	PHY 1150	4	UGETC	Required for major
MAT 272	Calculus II	4	MAT 271	MAT 1120	4	GEC	Required for major
FL 111	Foreign Language I	3		FL 1010	3	GEC	Required for major
UGETC/GEC		2			2	UGETC/GEC	
<b>Total Credit Hours Required</b>		<b>13</b>			<b>13</b>		

**Total General Education Hours Required** 47 47

**Other REQUIRED HOURS (14-15 SHC): These courses must be classified as pre-major, elective or general education within the CAA.**

Prefix	Course Name	Credit Hours	Pre-requisites	University Course Equivalent	Credit Hours	Category	Notes
ACA 122	College Transfer Success	1	None		1	GEC	required by CAA
PHY 252	General Physics II	4	MAT 272 & PHY 251	PHY 1151	4	UGETC	Required for major
FL 112	Foreign Language II	3	FL 111	FL 1020	4	GEC	Required for major
Pre-Major/GEC/Elective		3			3	Pre-Major/GEC/Elective	
Pre-Major/GEC/Elective		3			3	Pre-Major/GEC/Elective	

**Other Required Hours (15-16 SCH)** 14 14

**Total Semester Credit Hours in Program: 61**

- Degree requires both Physics and Chemistry sequences and will serve as prerequisites for future coursework.

**3rd - 4th Year Plan: BA, Chemistry**

Semester	Course	Hours	Notes	
5	CHE 2201 & 2203 Organic Chemistry I	4	Major Requirement	14
5	CHE 2210 & 2211 Quantitative Analysis	4	Major Requirement	
5	Minor Course 1	3	Major Requirement	
5	Minor Course 2	3	Major Requirement	
6	CHE 2202 & 2204 Organic Chemistry II	4	Major Requirement	14
6	CHE Elective I	3	Must be at 3000 level; CHE 3560/3561 or 4580 recommended	
6	Other Science Course 1	4	Major Requirement	
6	FL 1040 Intermediate Foreign Language I	3	Major Requirement	
7	CHE 3301 & 3303 Physical Chemistry I	4	Offered fall semester only - Writing in the Discipline	15
7	CHE 3000 Introduction to Chemical Research	1	Major Requirement	
7	Other Science Course 2	4	Major Requirement	
7	Minor Course 3	3	Major Requirement	
7	FL 1050 Intermediate Foreign Language II	3	Major Requirement	12
8	CHE 3302 & 3304 Physical Chemistry II	4	Offered spring semester only	
8	CHE Elective II	3	Must be at 3000 level; CHE 3560/3561 or 4580 recommended	
8	CHE 4000 Chemistry Seminar	1	Major Requirement	
8	Minor Course 4	3	Major Requirement	12
8	Free Elective	1		
9	CHE 3404 & 3405 Inorganic Chemistry	4	Offered fall semester only	
9	CHE 4400 Senior Research	1	Major Requirement	
9	Minor Course 5	3	If needed for 18 hour minor, otherwise take free elective	12
9	Minor Course 6	3	If needed for 21 hour minor, otherwise take free elective	
9	Free Elective	1		
				67
				61
				128 hours for graduation

- No more than 46 hours in CHE may be counted towards the degree.
  - Minor outside Chemistry required for this degree.
  - **Foreign language requirement:**
    - Student must take the Foreign Language Placement Test to determine starting course for the foreign language sequence.
    - If Foreign Language 1010 & 1020 taken for prerequisite purposes, they will count in place of 6 hours of Free Electives (3 hours per course).
    - FL 1030 may substitute for FL 1010 & 1020 for some languages; FL 1060 may substitute for FL 1040 & 1050 for some languages.
    - Foreign language classes can be taken in summer semesters.
- Residency Requirements:**
- 31 hours overall must be from ASU
  - 18 hours in the major must be from ASU
  - 9 hours in the minor must be from ASU