

### Universal General Education Transfer Component (UGETC)

English Composition (6 SCH)			The following <u>two</u> English composition courses are required.				
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)			Students will select <u>two</u> courses from at least two different disciplines:				
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		
Eng 241	British Literature I	3	ENG 112, 113 or 114	ENG 2050	3		
Eng 242	British Literature II	3	ENG 112, 113 or 114	ENG 2050	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)			Students will select <u>two</u> courses from at least two different disciplines:				
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)			Students will select <u>two</u> course from the following:				
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	
MATH 272	Calculus II	4	MAT 271	MAT 1120	4	Required	
<b>Total Credit Hours Required</b>		<b>8</b>			<b>8</b>		

Natural Sciences (8 SCH)			Students will select <u>8 SCH</u> from the following courses:				
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	See Notes
CHM 152	General Chemistry II	4	CHM 151	CHE 1102/CHE 1120	4	Required	See Notes
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	Required	See Notes
PHY 252	General Physics II	4	MAT 272 <u>and</u> PHY 251	PHY 1151	4	Required	See Notes
<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
CHM/PHY not previously taken		4			4	UGETC	Required for major
GEL 111	Introduction to Geology	4		GLY 1101	4	UGETC	Required for major
MAT 152	Stats	4		STT 2820	4	UGETC	Required for major
<b>Total Credit Hours Required</b>		<b>12</b>			<b>12</b>		

**Total General Education Hours Required** 46 46

**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
CHM/PHY not previously taken		4			4	UGETC	Required for major
MAT 273	Calculus III	4	MAT 271	MAT 2130	4	GEC	Required for major
MAT 280	Linear Algebra	4	MAT 271	MAT 2240	4	Pre-Major	Required for major
Pre-Major/GEC/Elective		1			1	Pre-Major/GEC/Elective	

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

**Total Semester Credit Hours in Program: 60**

Major requires two science sequences, Chemistry and Physics. Students should complete one sequence in first 30 hours.

**3rd - 4th Year Plan: BS, Geology, Quantitative Geoscience**

Semester	Course	Hours	Notes	
SU	MAT 2130 Calculus III	4	If taken at community college, start coursework in fall	8
SU	MAT 2240 Linear Algebra	4	If taken at community college, start coursework in fall	
5	GLY 2250 Evolution of the Earth	4	Major Requirement	14
5	GLY 3131 Geochemistry	3	Major Requirement	
5	CS/STT/GHY Elective	4	Major Requirement	
5	Free Elective	3		
6	GLY 2745 Preparation of Geologic Reports	4	Writing in the Discipline	16
6	GLY/PHY 3160 Introduction to Geophysics	3	Major Requirement	
6	GLY 3715 Petrology & Petrography	3	Major Requirement	
6	GLY 3800 Sedimentology & Stratigraphy	3	Major Requirement	
6	GLY ENV 3455 Quantitative Data Analysis	3	Major Requirement	
7	GLY 3150 Principals of Structural Geology & Tectonics	3	Major Requirement	
7	GLY 3220 Fundamentals of Mineralogy	3	Major Requirement	12
7	GLY 4630 Hydrogeology	3	Major Requirement	
7	Free Elective	3		
8	GLY 4210 Geology Seminar	1	CAPSTONE	
8	GLY 4705 Advanced Environmental & Engineering Geology	3	Major Requirement	13
8	GLY Elective	3	Major Requirement	
8	Free Elective	3		
8	Free Elective	3	Take enough free electives to reach 122 hours	
SU	GLY 4835 Summer Field Geology	6	Major Requirement	6
				62
				60 transfer hours
				122 hours for graduation

- In order to graduate, B.S. Geology majors must pass comprehensive senior exams during the last semester.
- 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
  - Final 30 hours must be courses taken through ASU (includes internships, study abroad taken through ASU)