

Universal General Education Transfer Component (UGETC)

English Composition (6 SCH)		The following two 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	
Total Credit Hours Required		6		6			
Humanities/Fine Arts (6 SCH)		Students will select two 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		
Total Credit Hours Required		6		9			
Social/Behavioral Science (6 SCH)		Students will select two 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		
Total Credit Hours Required		6		6			
Mathematics (8 SCH)		Students will select two 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		
MAT 263	Brief Calculus	4	MAT 171	MAT 1030	4		
MAT 271	Calculus I	4	MAT 172	MAT 1110	4	Required	
MAT 272	Calculus II	4	MAT 271	MAT 1120	4	Required	
Total Credit Hours Required		8		8			
Natural Sciences (8 SCH)		Students will select 8 SCH 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		must take both CHM 151 and CHM 152
CHM 152	General Chemistry II	4	CHM 151	CHE 1102/CHE 1120	4		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	Accepted, but PHY 251 Preferred	must take PHY 151 and PHY 152
PHY 152	College Physics II	4	PHY 151	PHY 1104	4	Accepted, but PHY 252 Preferred	must take PHY 151 and PHY 152
PHY 251	General Physics I	4	MAT 271	PHY 1150	4	Preferred	must take PHY 251 and PHY 252
PHY 252	General Physics II	4	MAT 272 <u>and</u> PHY 251	PHY 1151	4	Preferred	must take PHY 251 and PHY 252
Total Credit Hours Required		8		8			

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 151	General Chemistry I	4		CHE 1101 & 1110	4	UGETC	Required for major	
FL 111	Foreign Language I	3		FL 1010	3	GEC	Required for major	
UGETC/GEC		3			3	UGETC/GEC		
UGETC/GEC		2			2	UGETC/GEC		
Total Credit Hours Required		12			12			

Total General Education Hours Required 45 45

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	
MAT 273	Calculus III	4	MAT 272	MAT 2130	4	GEC	Required for major	
MAT 285	Differential Equations	3	MAT 271	MAT 3130	3	Pre-Major	Required for major	
CHM 152	General Chemistry II	4	CHM 151	CHE 1102 & 1120	4	UGETC	Required for major	
FL 112	Foreign Language II	3	FL 111	FL 1020	3	GEC	Required for major	

Other Required Hours (15-16 SCH) 15 15

Total Semester Credit Hours in Program: 60

3rd - 4th Year Plan: Physics					
Semester	Course	Hours	Notes		
5	PHY 2010 Intermediate Physics I	4	Major Requirement		
5	MAT 2130 Calculus III	4	If taken at community college, take Free Elective		
5	MAT 3130 Differential Equations	3	If taken at community college, take Free Elective		
5	Minor Course 1	3	Major Requirement, MAT 2140 (Linear Alg.) Recommended		
5	Foreign Language 1040	3	Major Requirement		
6	PHY 2020 Intermediate Physics II	4	Major Requirement		
6	PHY 2210 Physics Laboratory Techniques & Data Analysis	3	Writing in the Discipline		
6	PHY 3001 Analytical Methods in Physics	3	Major Requirement		
6	PHY Elective Course 1	3	Major Requirement		
6	Foreign Language 1050	3	Major Requirement		
7	PHY 3010 Classical Mechanics	3	Major Requirement		
7	PHY Elective Course 2	3	Major Requirement		
7	Minor Course 2	3	Major Requirement (not necessary with MAT 2140/Math minor)		
7	Minor Course 3	3	Major Requirement (not necessary with MAT 2140/Math minor)		
7	Minor Course 4	3	Major Requirement (not necessary with MAT 2140/Math minor)		
8	PHY 4210 Methods of Experimental Physics	3	CAPSTONE		
8	PHY 3020 Electromagnetic Fields and Waves	3	Major Requirement		
8	Minor Course 5	3	Major Requirement (not necessary with MAT 2140/Math minor)		
8	Minor Course 6	3	Major Requirement (not necessary with MAT 2140/Math minor)		
8	Free Elective	2			
				17	
				16	
				15	
				14	
				62	
				60 transfer hours	
				122 hours for graduation	

- No more than 46 hours in PHY may be counted towards the degree.
- Minor outside Physics 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
 - Final 30 hours must be courses taken through ASU (includes internships, study abroad taken through ASU)