2017-2018

## Universal General Education Transfer Component (UGETC)

English Composition (6 SC	CH): Complete BOTH English courses						
Prefix	Course Name	Credit Hours	Pre-requisites	University Course Equivalent	Credit Hours	Required or Preferred by Major	Notes
ENG 111	Expository Writing		None	RC 1000	3	Required	
ENG 112	Argument-Based Research	3	ENG 111	RC 2001	3	Required	
Total Credit Hours Requir		6			6		
	SCH): Select 2 classes from at least two different disciplines						
Prefix	Course Name	Credit Hours		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		None	ART 2030	3		
ART 115	Art History Survey II		None	ART 2130	3		
COM 231	Public Speaking	-	None	COM 2105	3		
ENG 231	American Literature I		ENG 112, 113 or 114	ENG 2350	3		
ENG 232	American Literature II		ENG 112, 113 or 114	ENG 2350	3		
ENG 241	British Lit I		ENG 112, 113 or 114	ENG 2050	3		
ENG 242	British Lit II	-	ENG 112, 113 or 114	ENG 2050	3		
MUS 110	Music Appreciation		None	MUS 2011	3		
MUS 112	Introduction to Jazz		None	MUS 2014	3		
PHI 215	Philosophical Issues		ENG 111	PHL Elective	3		
PHI 240	Introduction to Ethics		ENG 111	PHL 2000	3		1
Total Credit Hours Requir	red	6			9		
Social /Behavioral Scienc	e (6 SCH): Select 2 classes 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		None	HIS 1101	3		
HIS 112	World Civilizations II	-	None	HIS 1102	3		
HIS 131	American History I		None	HIS 1200	3		
HIS 132	American History II		None	HIS 1200	3		
PSY 150	General Psychology		None	PSY 1200	3		
POL 120	American Government		None	P S 1100	3		
SOC 210	Introduction to Sociology		None	SOC 1000	3		
Total Credit Hours Requir		6		500 1000	6		
		-			-		
Mathematics (8 SCH): Se		1	1	r	1	r	1
Prefix	Course Name	Credit Hours		University Course Equivalent	Credit Hours	Required or Preferred by Major	Notes
MAT 171	Precalculus Algebra	4	None	MAT 1020	4		
MAT 172	Precalculus Trigonometry		MAT 171	MAT 1025	4		
MAT 263	Brief Calculus		MAT 171	MAT 1035	4		
MAT 271	Calculus I		MAT 172	MAT 1110	4	Required	
MAT 272	Calculus II		MAT 271	MAT 1120	4	Required	
Total Credit Hours Requir	red	8			8		
Natural Sciences (8 SCH):	Select 2 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		Hotes
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		None	CHE 1101/CHE 1110	1	Required	must take both CHM 151 and CHM 152
CHM 151 CHM 152	General Chemistry II	4	CHM 151	CHE 1102/CHE 1120	4	Required	must take both CHM 151 and CHM 152 must take both CHM 151 and CHM 152
GEL 111	Introduction Geology	4	None	GLY 1101	4	Nequireu	must take both criwi 151 and CRIWI 152
PHY 110/110A	Conceptual Physics and Lab	4	None	PHY 1100	4		must take course with lab
PHY 110/110A PHY 151	College Physics I	4	MAT 171	PHY 1100 PHY 1103	4		must take PHY 151 and PHY 152
PHY 151 PHY 152	College Physics I		PHY 151	PHY 1105	4		must take PHY 151 and PHY 152 must take PHY 151 and PHY 152
PHY 152 PHY 251	General Physics I	4	MAT 271	PHY 1104 PHY 1150	4		must take PHY 151 and PHY 152 must take PHY 251 and PHY 252
PHY 251 PHY 252	General Physics I	4	MAT 271 MAT 272 and PHY 251	PHY 1150 PHY 1151	4		must take PHY 251 and PHY 252 must take PHY 251 and PHY 252
Total Credit Hours Requir		4		1.111.1121	4	l	must take FHT 251 dilu FHT 252
rotal creuit nours requir		8			8		

	Hours	34			34		
			Additional Gen	eral Education Courses (13-14 SHC)			
Prefix	Course Name	Credit Hours	Pre-requisites	University Course Equivalent	Credit Hours	Category	Notes
HY 251	General Physics I	4	MAT 271	PHY 1150	4	UGETC	Required for major
GETC/GEC		4			4	UGETC/GEC	Required for major
GETC/GEC		3			3	UGETC/GEC	
GETC/GEC		2			2	UGETC/GEC	
otal Credit Hours R	Required	13			13		
otal General	l Education Hours Required	47			47		
			Other RE	QUIRED HOURS (15-16 SHC)			
Prefix	Course Name	Credit Hours	Pre-requisites	University Course Equivalent	Credit Hours	Category	Notes
CA 122	College Transfer Success	1	None		1	GEC	required by CAA
HY 252	General Physics II		MAT 272 & PHY 251	PHY 1151	4	UGETC	Required for major
re-Major/GEC/Elec		3			4	Pre-Major/GEC/Elective	
re-Major/GEC/Elec		3			3	Pre-Major/GEC/Elective	
re-Major/GEC/Elec		3			3	Pre-Major/GEC/Elective	
		· · · ·	•			• • •	
Juner Require	ed Hours (15-16 SCH)	14			14		
• Degree requires	s both Physics and Chemistry sequences and will serve as prerequisites I	for future coursework.					
rd - 4th Year P	lan: BS, Chemistry, Certified Chemist			Notac			1
	Plan: BS, Chemistry, Certified Chemist Course	for future coursework. Hours		Notes Major Requirement			]
rd - 4th Year P	Vlan: BS, Chemistry, Certified Chemist Course CHE 2201 & 2203 Organic Chemistry I	Hours		Major Requirement			1
rd - 4th Year P	Plan: BS, Chemistry, Certified Chemist Course CHE 2201 & 2203 Organic Chemistry I CHE 2210 & 2211 Quantitative Analysis	Hours 4		Major Requirement Major Requirement			
rd - 4th Year P	Vlan: BS, Chemistry, Certified Chemist Course CHE 2201 & 2203 Organic Chemistry I	Hours 4 4		Major Requirement	14		
rd - 4th Year P	Plan: BS, Chemistry, Certified Chemist Course CHE 2201 & 2203 Organic Chemistry I CHE 2210 & 2211 Quantitative Analysis CS 1445 Introduction to Programming Free Elective	Hours 4 3		Major Requirement Major Requirement Major Requirement	14		
rd - 4th Year P	Plan: BS, Chemistry, Certified Chemist Course CHE 2201 & 2203 Organic Chemistry I CHE 2210 & 2211 Quantitative Analysis CS 1445 Introduction to Programming	Hours 4 3 3		Major Requirement Major Requirement Major Requirement Major Requirement	14		
rd - 4th Year P	Plan: BS, Chemistry, Certified Chemist Course CHE 2201 & 2203 Organic Chemistry I CHE 2210 & 2211 Quantitative Analysis CS 1445 Introduction to Programming Free Elective CHE 2202 & 2204 Organic Chemistry II	Hours 4 3 3 4		Major Requirement Major Requirement Major Requirement	14		
rd - 4th Year P	Plan: BS, Chemistry, Certified Chemist   Course CHE 2201 & 2203 Organic Chemistry I   CHE 2210 & 2211 Quantitative Analysis CS 1445 Introduction to Programming   Free Elective CHE 2202 & 2204 Organic Chemistry II   CHE 2202 & 2204 Organic Chemistry II CHE 2000 Introduction to Chemical research   Other Science Course 1 CHE 2000 Introduction to Chemical research	Hours 4 3 3 4 1		Major Requirement Major Requirement Major Requirement Major Requirement Major Requirement	14		
rd - 4th Year P	Plan: BS, Chemistry, Certified Chemist Course CHE 2201 & 2203 Organic Chemistry I CHE 2210 & 2211 Quantitative Analysis CS 1445 Introduction to Programming Free Elective CHE 2202 & 2204 Organic Chemistry II CHE 3000 Introduction to Chemical research	Hours 4 3 3 4 1 3 3		Major Requirement Major Requirement Major Requirement Major Requirement Major Requirement	14		
rd - 4th Year P	Plan: BS, Chemistry, Certified Chemist   Course CHE 2201 & 2203 Organic Chemistry I   CHE 2210 & 2211 Quantitative Analysis CS 1445 Introduction to Programming   Free Elective CHE 2202 & 2204 Organic Chemistry II   CHE 3000 Introduction to Chemical research Other Science Course 1   Free Elective Free Elective	Hours 4 3 3 4 1 3 3 3 3 3 3 3 3		Major Requirement Major Requirement Major Requirement Major Requirement Major Requirement Major Requirement			
rd - 4th Year P	Plan: BS, Chemistry, Certified Chemist   Course CHE 2201 & 2203 Organic Chemistry I   CHE 2210 & 2211 Quantitative Analysis CS 1445 Introduction to Programming   Free Elective CHE 2202 & 2204 Organic Chemistry II   CHE 2202 & 2204 Organic Chemistry II CHE 3000 Introduction to Chemical research   Other Science Course 1 Free Elective   Free Elective CHE 3301 & 3303 Physical Chemistry I	Hours 4 3 3 4 1 3 3 3 3 3 3 3		Major Requirement Major Requirement Major Requirement Major Requirement Major Requirement Major Requirement Offered fall semester only			
rd - 4th Year P	Plan: BS, Chemistry, Certified Chemist   Course CHE 2201 & 2203 Organic Chemistry I   CHE 2210 & 2211 Quantitative Analysis CS 1445 Introduction to Programming   Free Elective CHE 2202 & 2204 Organic Chemistry II   CHE 3000 Introduction to Chemical research Other Science Course 1   Free Elective Free Elective	Hours 4 4 3 3 4 1 1 3 3 3 4 4 4		Major Requirement Major Requirement Major Requirement Major Requirement Major Requirement Major Requirement Offered fall semester only Offered fall semester only			
rd - 4th Year P	Plan: BS, Chemistry, Certified Chemist   Course CHE 2201 & 2203 Organic Chemistry I   CHE 2210 & 2211 Quantitative Analysis CS   CS 1445 Introduction to Programming Free Elective   Free Elective CHE 2202 & 2204 Organic Chemistry II   CHE 2002 & 2204 Organic Chemistry II CHE 3000 Introduction to Chemical research   Other Science Course 1 Free Elective   Free Elective CHE 3301 & 3303 Physical Chemistry I   CHE 3404 & 3405 Inorganic Chemistry I CHE 3404 & 3405 Inorganic Chemistry I	Hours 4 4 3 3 4 1 3 3 3 3 3 3 4 4 4		Major Requirement Major Requirement Major Requirement Major Requirement Major Requirement Major Requirement Offered fall semester only			
rd - 4th Year P	Plan: BS, Chemistry, Certified Chemist   Course CHE 2201 & 2203 Organic Chemistry I   CHE 2210 & 2211 Quantitative Analysis CS   CS 1445 Introduction to Programming Free Elective   CHE 2202 & 2204 Organic Chemistry II CHE 2202 & 2204 Organic Chemistry II   CHE 3000 Introduction to Chemical research Other Science Course 1   Free Elective Free Elective   CHE 3301 & 3303 Physical Chemistry I CHE 3404 & 3405 Inorganic Chemistry I   Other Science Course 2 Other Science Course 2	Hours 4 4 3 3 4 4 1 3 3 3 3 4 4 4 4 4		Major Requirement Major Requirement Major Requirement Major Requirement Major Requirement Major Requirement Offered fall semester only Offered fall semester only Major Requirement			
rd - 4th Year P	Plan: BS, Chemistry, Certified Chemist   Course CHE 2201 & 2203 Organic Chemistry I   CHE 2210 & 2211 Quantitative Analysis CS 1445 Introduction to Programming   Free Elective CHE 2202 & 2204 Organic Chemistry II   CHE 3000 Introduction to Chemical research Other Science Course 1   Free Elective Free Elective   CHE 3301 & 3303 Physical Chemistry I CHE 3404 & 3405 Inorganic Chemistry I   Other Science Course 2 CHE 4000 Chemistry Seminar   CHE 4580 Biochemistry CHE 4580 Biochemistry	Hours 4 3 3 4 4 1 3 3 3 3 3 4 4 4 4 4 4 1		Major Requirement Major Requirement Major Requirement Major Requirement Major Requirement Major Requirement Offered fall semester only Offered fall semester only Major Requirement Major Requirement Major Requirement	14		
rd - 4th Year P	Plan: BS, Chemistry, Certified Chemist   Course CHE 2201 & 2203 Organic Chemistry I   CHE 2210 & 2211 Quantitative Analysis CS   CS 1445 Introduction to Programming Free Elective   CHE 2202 & 2204 Organic Chemistry II CHE 3000 Introduction to Chemical research   Other Science Course 1 Free Elective   Free Elective CHE 3301 & 3303 Physical Chemistry I   CHE 3304 & 3405 Inorganic Chemistry I Other Science Course 2   CHE 4000 Chemistry Seminar CHE 3400 Chemistry Seminar	Hours 4 3 3 4 4 1 3 3 3 3 4 4 4 4 4 4 3 3 3 3		Major Requirement Major Requirement Major Requirement Major Requirement Major Requirement Major Requirement Offered fall semester only Offered fall semester only Major Requirement Major Requirement	14		
rd - 4th Year P	Plan: BS, Chemistry, Certified Chemist   Course CHE 2201 & 2203 Organic Chemistry I   CHE 2201 & 2210 Quantitative Analysis CS   CS 1445 Introduction to Programming Free Elective   CHE 2202 & 2204 Organic Chemistry II CHE 2002 & 2204 Organic Chemistry II   CHE 2202 & 2204 Organic Chemistry II CHE 3000 Introduction to Chemical research   Other Science Course 1 Free Elective   Free Elective Free Elective   CHE 3301 & 3303 Physical Chemistry I CHE 3404 & 3405 Inorganic Chemistry I   Other Science Course 2 CHE 4000 Chemistry Seminar   CHE 4580 Biochemistry CHE 3302 & 3305 Physical Chemistry II	Hours 4 4 3 3 4 4 1 3 3 3 4 4 4 4 4 4 4 4 4 4		Major Requirement Major Requirement Major Requirement Major Requirement Major Requirement Major Requirement Offered fall semester only Offered fall semester only Major Requirement Major Requirement Major Requirement Offered spring semester only Offered spring semester only	14		
rd - 4th Year P	Plan: BS, Chemistry, Certified Chemist   Course CHE 2201 & 2203 Organic Chemistry I   CHE 2210 & 2211 Quantitative Analysis CS   CS 1445 Introduction to Programming Free Elective   CHE 2202 & 2204 Organic Chemistry II CHE 2202 & 2204 Organic Chemistry II   CHE 3000 Introduction to Chemical research Other Science Course 1   Free Elective Free Elective   CHE 3301 & 3303 Physical Chemistry I Other Science Course 2   CHE 3404 & 3405 Inorganic Chemistry I Other Science Course 2   CHE 4400 Chemistry Seminar CHE 4300 Enchemistry   CHE 3302 & 3305 Physical Chemistry II CHE 3302 & 3305 Physical Chemistry II   CHE 3560 & 3561 Instrumental Methods of Analysis CHE 3404 Sof Analysis	Hours 4 4 3 3 4 4 1 3 3 3 3 3 4 4 4 4 4 4 4 4		Major Requirement Major Requirement Major Requirement Major Requirement Major Requirement Major Requirement Offered fall semester only Offered fall semester only Major Requirement Major Requirement Major Requirement Offered spring semester only	14		
rd - 4th Year P	Plan: BS, Chemistry, Certified Chemist   Course CHE 2201 & 2203 Organic Chemistry I   CHE 2210 & 2211 Quantitative Analysis CS 1445 Introduction to Programming   Free Elective CHE 2202 & 2204 Organic Chemistry II   CHE 2000 Introduction to Programming Free Elective   CHE 2000 Introduction to Chemical research Other Science Course 1   Free Elective Free Elective   CHE 3301 & 3303 Physical Chemistry I Other Science Course 2   CHE 4400 Chemistry Seminar CHE 4580 Biochemistry   CHE 3302 & 3305 Physical Chemistry II CHE 3500 & 3561 Instrumental Methods of Analysis   CHE 4400 Senior Research CHE 4400 Senior Research	Hours 4 3 3 4 4 1 3 3 3 3 4 4 4 4 4 4 4 4 4 1 3 3 4 4 4 4		Major Requirement Major Requirement Major Requirement Major Requirement Major Requirement Major Requirement Offered fall semester only Offered fall semester only Major Requirement Major Requirement Major Requirement Offered spring semester only Offered spring semester only Major Requirement	14		
rd - 4th Year P	Plan: BS, Chemistry, Certified Chemist   Course ChE 2201 & 2203 Organic Chemistry I   CHE 2201 & 2211 Quantitative Analysis CS   CS 1445 Introduction to Programming Free Elective   CHE 2202 & 2204 Organic Chemistry II CHE 3000 Introduction to Chemical research   Other Science Course 1 Free Elective   CHE 3301 & 3303 Physical Chemistry I CHE 3404 & 3405 Inorganic Chemistry I   Other Science Course 2 CHE 4000 Chemistry Seminar   CHE 4580 Biochemistry CHE 3302 & 3305 Physical Chemistry II   CHE 3302 & 3305 Physical Chemistry II CHE 3360 & 3561 Instrumental Methods of Analysis   CHE 4400 Senior Research Free Elective	Hours 4 4 3 3 3 4 4 1 3 3 3 3 4 4 4 4 4 4 4 4		Major Requirement Major Requirement Major Requirement Major Requirement Major Requirement Major Requirement Offered fall semester only Offered fall semester only Major Requirement Major Requirement Major Requirement Offered spring semester only Offered spring semester only	14		
rd - 4th Year P	Plan: BS, Chemistry, Certified Chemist   Course ChE 2201 & 2203 Organic Chemistry I   CHE 2201 & 2211 Quantitative Analysis CS   CS 1445 Introduction to Programming Free Elective   CHE 2202 & 2204 Organic Chemistry II CHE 3000 Introduction to Chemical research   Other Science Course 1 Free Elective   CHE 3301 & 3303 Physical Chemistry I CHE 3404 & 3405 Inorganic Chemistry I   Other Science Course 2 CHE 4000 Chemistry Seminar   CHE 4580 Biochemistry CHE 3302 & 3305 Physical Chemistry II   CHE 3302 & 3305 Physical Chemistry II CHE 3360 & 3561 Instrumental Methods of Analysis   CHE 4400 Senior Research Free Elective	Hours 4 4 3 3 3 4 4 1 3 3 3 3 4 4 4 4 4 4 4 4		Major Requirement Major Requirement Major Requirement Major Requirement Major Requirement Major Requirement Offered fall semester only Offered fall semester only Major Requirement Major Requirement Major Requirement Offered spring semester only Offered spring semester only Major Requirement	14 16 17 61	Insfer hours	
rd - 4th Year P	Plan: BS, Chemistry, Certified Chemist   Course ChE 2201 & 2203 Organic Chemistry I   CHE 2201 & 2211 Quantitative Analysis CS   CS 1445 Introduction to Programming Free Elective   CHE 2202 & 2204 Organic Chemistry II CHE 3000 Introduction to Chemical research   Other Science Course 1 Free Elective   CHE 3301 & 3303 Physical Chemistry I CHE 3404 & 3405 Inorganic Chemistry I   Other Science Course 2 CHE 4000 Chemistry Seminar   CHE 4580 Biochemistry CHE 3302 & 3305 Physical Chemistry II   CHE 3302 & 3305 Physical Chemistry II CHE 3360 & 3561 Instrumental Methods of Analysis   CHE 4400 Senior Research Free Elective	Hours 4 4 3 3 3 4 4 1 3 3 3 3 4 4 4 4 4 4 4 4		Major Requirement Major Requirement Major Requirement Major Requirement Major Requirement Major Requirement Offered fall semester only Offered fall semester only Major Requirement Major Requirement Major Requirement Offered spring semester only Offered spring semester only Major Requirement	14 16 17 61 17 61 17	insfer hours urs for graduation	

## 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)