## E Salem | STATE UNIVERSITY

Name:

Student ID: \_\_\_\_\_ Date Admitted Into Major:\_\_\_\_

## BACHELOR OF SCIENCE CHEMISTRY

(ACS APPROVED)

## GENERAL EDUCATION REQUIREMENTS

Competencies

_	Competencies
	□ + Basic College Math
	□ ◆ Reading Comprehension

## ★General Education Categories (34-35 credits total)

		0 (			,	
FYS	First Year Ser	minar			3	
♦W-I	Written Comm	nunication - Level I			3	
+OC	Oral Commun	nication			3	
PGR	Personal Gro	wth & Responsibility			3	
CEA	Creative Expr	ession & Appreciation			3	
WC	World Culture	s			3	
HP	The Human F	'ast			3	
CS	Contemporar	y Society			3	
SR	Scientific				3-4	
31	Reasoning:				4	
QR	Quantitative F	Reasoning			3	
	‡ Written C	ommunication (Leve	el II and	Level I	II)	
W-II	Written Comm	nunication - Level II				]
W-III	Written Comm	nunication - Level III				]

¶ Free Electives (8 credits minimum) May be necessary to take additional credits to attain the minimum 120 credits required for graduation depending on choices made for general education or minor selection.

	CC	OURSES IN MAJOR (54 credits tota	al)
		Freshman Year	
CHE	130	General Chemistry I	4
CHE	212	Organic Chemistry I	4
		Sophomore Year	
CHE	131	General Chemistry II	4
CHE	213	Organic Chemistry II	4
		Junior Year	
CHE	308	Descriptive Inorganic Chemistry	3
CHE	309	Biochemistry	4
CHE	321	Quantitative Analysis	4
CHE	341	Physical Chemistry I	4
CHE	342	Physical Chemistry II`	4
CHE	422	Instrumental Analysis	4
		Senior Year	
CHE	340	Techniques in Inorganic &	4
		Organic Synthesis	
CHE	441	Advanced Inorganic Chemistry	3
CHE	419	Advanced Biochemistry	
	OR		3
CHE	442	Physical Organic Chemistry	
CHE	560	Chemistry Seminar	2
CHE	572	Chemistry Research I	3
	• Requ	ired Support Courses (23 credits t	otal)

MAT	220	Calculus I	4
MAT	221	Calculus II	4
†ITC	100	Computers and Their Uses	3
PHS	211A	Physics I	
	OR		
PHS	221	Physics I with Calculus	4
	AND		
PHS	212A	Physics II	
	OR		
PHS	222	Physics II with Calculus	4
PHS	311	General Physics III	4

Students may choose to use support courses to satisfy general education categories, but may not be required to do so. Note: If a course is used to satisfy two or more requirements (for example, a support course and Scientific Reasoning requirement), the credits are counted in only one place. Using a course to satisfy more than one requirement does not reduce the credit total required for graduation.

Courses used to satisfy the general education requirements of the university must be taken from a minimum of six different academic disciplines. First Year

Seminar and Level I Written Communications courses are exempt from this restriction. Courses may not be used to fulfill both major discipline and general education requirements.

# These Scientific Reasoning General Education Category courses do not have to be a sequence or be from the same discipline.

- Level II and Level III Written Communications Courses may be used to satisfy requirements anywhere else in a student's program of study where they may apply. The credits are counted only in one area.
- t ITC 100 is required of students who did not pass the Computer Literacy Test and must be taken in the first semester of the Freshman year or the transfer year.

¶ It is strongly recommended that students elect additional biology, mathematics, physics and computer science courses.

COMPETENCIES - TO BE COMPLETED WITHIN THE FIRST 30 CREDITS
GENERAL EDUCATION CATEGORIES - TO BE COMPLETED WITHIN THE FIRST 30 CREDITS

Exceptions in the timing of courses will be made for transfer students

Total credits for graduation: 120

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Effective: 9/2016