Salem STATE UNIVERSITY

Name:_____
Student ID: _____
Date Admitted Into Major:_____

BACHELOR OF SCIENCE
CHEMISTRY
BIOCHEMISTRY CONCENTRATION

GENERAL EDUCATION REQUIREMENTS

Competencies

☐	♦ Basic College Math
☐	♦ Reading Comprehension

♣General Education Categories (34-35 credits total)

♦FYS	First Year Seminar				3	
♦W-I	Written Communication - Level I				3	
♦OC	Oral Communication				3	
PGR	Personal Growth & Responsibility				3	
CEA	Creative Expression & Appreciation				3	
WC	World Cultures				3	
HP	The Human Past				3	
CS	Contemporary Society				3	
SR	Scientific Reasoning:	♯ Any SR course			3-4	
		♯ SR Lab course			4	
QR	Quantitative Reasoning				3	

‡ Written Communication (Level II and Level III)) and Diversity, Power Dynamics and Social Justice

W-II	Written Communication - Level II			☐
W-III	Written Communication - Level III			☐
DPDS	Diversity, Power Dynamics and Social Justice			☐

¶ Free Electives (9 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.

COURSES IN MAJOR (45 credits total)

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	309	Biochemistry	4	
CHE	321	Quantitative Analysis	4	
CHE	341	Physical Chemistry I	4	
CHE	342	Physical Chemistry II`	4	
Senior Year				
CHE	340	Techniques in Inorganic & Organic Synthesis	4	
CHE	419	Advanced Biochemistry	3	
CHE	422	Instrumental Analysis	4	
CHE	560	Chemistry Seminar	2	

♥ Required Support Courses (31 credits total)

BIO	132	Introduction to Cells	4	
BIO	212	Cell Biology	4	
MAT	220	Calculus I	4	
MAT	221	Calculus II	4	
†ITC	100	Computers and Their Uses	3	
PHS	211A	Physics I	4	
	OR			
PHS	221	Physics I with Calculus	4	
	AND			
PHS	212A	Physics II	4	
	OR			
PHS	222	Physics II with Calculus	4	
and one of the following:				
BIO	313	Molecular Biology	4	
BIO	402	Genetics	4	
BIO	405	General Physiology	4	
BIO	406	Microbiology	4	
BIO	411	Immunology	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, Level III Written Communications and Diversity, Power Dynamics and Social Justice 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.

† 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

Effective: 9/2019