

CHEMISTRY (B.S.) BIOCHEMISTRY OPTION

Degree: Bachelor of Science

Major: Chemistry

Concentration: Biochemistry

Total Hours: 129

Code	Title	Hours
General Education Core Curriculum		
<i>Communication</i>		
ENGL 1301	Composition I	3
Select one of the following:		3
COMM 1315	Public Speaking I	
COMM 1321	Business and Professional Speech	
FREN 1311	Beginning French I	
SPAN 1311	Beginning Spanish I	
<i>Mathematics - 3 hours¹</i>		
MATH 2413	Calculus I	4
<i>Life and Physical Sciences - 6 hours¹</i>		
BIOL 1406	General Biology I (Majors)	4
BIOL 1407	General Biology II (Majors)	4
<i>Language, Philosophy and Culture</i>		
Select three hours from the following:		3
DSDE 1374	Introduction to Deaf Studies	
ENGL 2300	Ethics and Literature	
ENGL 2322	British Literature	
ENGL 2326	American Literature	
ENGL 2331	World Literature	
ENGL 2376	African-American Literature	
FREN 2312	Intermediate French II	
PHIL 1370	Philosophy of Knowledge	
PHIL 2306	Ethics	
SPAN 2312	Intermediate Spanish II	
<i>Creative Arts</i>		
Select three hours from the following:		3
ARTS 1301	Art Appreciation	
ARTS 1303	Art History I	
COMM 1375	Film Appreciation	
COSC 1324	The Art of Computer Game Development	
DANC 2303	Dance Appreciation	
MUSI 1306	Music Appreciation	
MUSI 1309	Jazz History and Appreciation	
MUSI 1310	History of Rock and Roll	
PHIL 1330	Arts and Ideas	
THEA 1310	Theatre Appreciation	
<i>American History</i>		
Select six hours from the following:		6
HIST 1301	U S History I 1763-1877	
HIST 1302	U S History II Since 1877	

HIST 2301	Texas History	
<i>Government/ Political Science</i>		
POLS 2301	Intro to American Government I	3
POLS 2302	Intro/American Government II	3
<i>Social and Behavioral Sciences</i>		
Select three hours from the following:		3
ANTH 2346	Introduction to Anthropology	
ANTH 2351	Cultural Anthropology	
BULW 1370	Business Environment and Public Policy	
CRIJ 1301	Intro to Criminal Justice	
ECON 1301	Principles and Policies	
ECON 2301	Principles of Economics I Macro	
ECON 2302	Principles of Economics II Micro	
FINC 2310	Intro to Consumer Finance	
INEN 2373	Engineering Economics	
PSYC 2301	General Psychology	
PSYC 2315	Lifespan Development	
POLS 1301	Intro to Political Science	
SOCI 1301	Introduction to Sociology	
SOWK 2361	Intro Social Work	
<i>Component Area Option - 6 hours¹</i>		
ENGL 1302	Composition II	3
MATH 2414	Calculus II	4
Required Major Courses		
<i>Chemistry Requirements</i>		
BIOL 2421	Microbiology for Science Majors	4
CHEM 1111	General Chemistry I Laboratory	1
CHEM 1112	General Chemistry II Laboratory	1
CHEM 1311	General Chemistry I	3
CHEM 1312	General Chemistry II	3
CHEM 3111	Organic Chemistry I Laboratory	1
CHEM 3112	Organic Chemistry II Laboratory	1
CHEM 3131	Inorganic Chemistry I Laboratory	1
CHEM 3311	Organic Chemistry I	3
CHEM 3312	Organic Chemistry II	3
CHEM 3331	Inorganic Chemistry	3
CHEM 3401	Quantitative Analysis	4
CHEM 4131	Physical Lab	1
CHEM 4132	Physical Lab	1
CHEM 4141	Inorganic Chemistry II Laboratory	1
CHEM 4311	Physical Chemistry I	3
CHEM 4312	Physical Chemistry II	3
CHEM 4341	Inorganic	3
CHEM 4381	Chemical Communication	3
CHEM 4411	Biochemistry I	4
CHEM 4412	Biochemistry II	4
CHEM 4461	Instrumental Methods of Analysis	4
CHEM 4371	Intro Research	3
	or CHEM 4471 Introduction to Research	
PHYS 1401	College Physics I	4
PHYS 1402	College Physics II	4
PHYS 3350	Modern Physics	3

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MATH 2415	Calculus III	4
Electives		
<i>Chemistry Electives</i>		
Select 6 hours of CHEM courses, 3000 or 4000 level ²		6
<i>Biology Electives</i>		
Select four hours from the following:		4
BIOL 3440	Advanced Physiology	
BIOL 3470	Genetics	
BIOL 4101	Special Topics	
BIOL 4404	Molecular Biology	
BIOL 4405	Immunology	
BIOL 4435	Environmental Toxicology	
BIOL 4470	Cell Biology/Histology	
Total Hours		129

¹ Additional hours are applied to degree requirements below.

² Courses must be approved by advisor.

³ Excess four hours from the core are applied here.

Course	Title	Hours
First Year		
Fall		
MATH 2413	Calculus I	4
BIOL 1406	General Biology I (Majors)	4
HIST 1301	U S History I 1763-1877	3
ENGL 1301	Composition I	3
Hours		14
Spring		
MATH 2414	Calculus II	4
BIOL 1407	General Biology II (Majors)	4
HIST 1302	U S History II Since 1877	3
ENGL 1302	Composition II	3
Hours		14
Second Year		
Fall		
CHEM 1311	General Chemistry I	3
CHEM 1111	General Chemistry I Laboratory	1
PHYS 1401	College Physics I	4
PHIL 1370	Philosophy of Knowledge	3
COMM 1315	Public Speaking I	3
Hours		14
Spring		
CHEM 1312	General Chemistry II	3
CHEM 1112	General Chemistry II Laboratory	1
PHYS 1402	College Physics II	4
Creative Arts Core		3
Social and Behavioral Science Core		3
Hours		14
Summer		
POLS 2301	Intro to American Government I	3
BIOL 2421	Microbiology for Science Majors	4
Hours		7
Third Year		
Fall		
MATH 2415	Calculus III	4
CHEM 3311	Organic Chemistry I	3
CHEM 3111	Organic Chemistry I Laboratory	1
CHEM 3331	Inorganic Chemistry	3
CHEM 3131	Inorganic Chemistry I Laboratory	1

CHEM 3401	Quantitative Analysis	4
Hours		16
Spring		
CHEM 3312	Organic Chemistry II	3
CHEM 3112	Organic Chemistry II Laboratory	1
PHYS 3350	Modern Physics	3
Biology Elective		4
CHEM/BIOL Elective		3
Hours		14
Summer		
CHEM 4371	Intro Research (or CHEM 4471)	3
POLS 2302	Intro/American Government II	3
Hours		6
Fourth Year		
Fall		
CHEM 4311	Physical Chemistry I	3
CHEM 4131	Physical Lab	1
CHEM 4411	Biochemistry I	4
CHEM 4381	Chemical Communication	3
CHEM/BIOL Elective		3
Hours		14
Spring		
CHEM 4312	Physical Chemistry II	3
CHEM 4132	Physical Lab	1
CHEM 4341	Inorganic	3
CHEM 4141	Inorganic Chemistry II Laboratory	1
CHEM 4412	Biochemistry II	4
CHEM 4461	Instrumental Methods of Analysis	4
Hours		16
Total Hours		129