



Chemistry AS to Bachelor of Science in Biochemistry

Recommended 4-Year Course Sequence
2024-2025 Catalog



FRESHMAN YEAR

Fall				Spring			
TJC	UT Tyler	Title	Hours	TJC	UT Tyler	Title	Hours
ENGL 1301		College Composition I	3	ENGL 1302 or ENGL 2311		College Composition II or Technical & Business Writing	3
MATH 1342		Statistics	3	MATH 2413		Calculus I	4
EDUC 1300 or COSC 1301		*Learning Framework or Introduction to Computing	0	CHEM 1412		General Chemistry II	4
CHEM 1411		General Chemistry I	4	BIOL 1407		Biology for Science Majors II	4
BIOL 1406		Biology for Science Majors I	4			Suggested Pathway Elective	2
			14				17

SOPHOMORE YEAR

Fall				Spring			
TJC	UT Tyler	Title	Hours	TJC	UT Tyler	Title	Hours
HIST 1301		US History I	3	HIST 1302		US History II	3
MATH 2414		Calculus II	4	GOVT 2306		Texas Government	3
GOVT 2305		Federal Government	3	PSYC 1301		Intro to Psychology	3
		Creative Arts Core	3			Language, Philosophy, & Culture Core	3
PHYS 2425		University Physics I	4	PHYS 2426		University Physics II	4
			17				16

JUNIOR YEAR

Fall				Spring			
TJC	UT Tyler	Title	Hours	TJC	UT Tyler	Title	Hours
		Advanced Biology Elective*	3		CHEM 4346	Biochemistry II	3
		Advanced Biology Elective Lab*	1		CHEM 3320	Inorganic Chemistry	3
	CHEM 3310	Analytical Chemistry	3		CHEM 3121	Inorganic Chemistry lab	1
	CHEM 3111	Analytical Chemistry lab	1			Advanced Biology Elective*	3
		Advanced Biology Elective*	3			Advanced Biology Elective Lab*	1
		Advanced Biology Elective Lab*	1		CHEM 2425	Organic Chemistry II	3
	CHEM 2423	Organic Chemistry I	3			Organic Chemistry II Lab	1
		Organic Chemistry I Lab	1				
			16				15

SENIOR YEAR

Fall				Spring			
TJC	UT Tyler	Title	Hours	TJC	UT Tyler	Title	Hours
	CHEM 3352	Physical Chemistry I	3		CHEM 4344	Molecular Basis of Disease	3
	CHEM 3153	Physical Chemistry I Lab	1		CHEM 3346	Nano/Supra Chemistry	3
	CHEM 4334	Biochemistry I	3			Advanced Chemistry Elective*	3
	CHEM 4135	Biochemistry I Lab	1		CHEM 4191	Seminar	1
	CHEM 4340	Proteomics	3		CMST 1315	Intro to Public Speaking	3
	CHEM 4190	Chemical Literature	1				
			12				13

Total Credit Hours at Tyler Junior College 64

Total Credit Hours at UT Tyler 56

Total Credit Hours 120

This pathway cannot be used in lieu of a Degree Plan. This pathway does not lead to Teacher Certification.

*Denotes courses that will not be part of the pathway agreement and will not contribute to the hour count for UT Tyler

Advanced Chemistry Electives

CHEM 3354	Physical Chemistry II	3
CHEM 3155	Physical Chemistry II lab	1
CHEM 4312	Instrumental Analysis	3
CHEM 4113	Instrumental Analysis lab	1
CHEM 4330	Advanced Inorganic Chemistry	3
CHEM 4332	Spectroscopy	3
CHEM 4346	Advanced Organic Chemistry	3
CHEM 4336	Biochemistry II	3
CHEM 4340	Proteomics	3
CHEM 4344	Molecular Basis of Disease	3

Advance Biology Electives

BIOL 3332	Genetics	3
BIOL 3133	Genetics Lab	1
BIOL 3343	Physiology	3
BIOL 3144	Physiology Lab	1
BIOL 4350	Immunology	3
BIOL 3334	Cell Biology	3
BIOL 3134	Cell Biology Lab	1
BIOL 4300	Microbiology	3
BIOL 4101	Microbiology Lab	1