

The chemistry program offers the student an opportunity to gain an appreciation of the chemical world, to develop an inquisitive nature, to train in the use of the scientific method, to prepare for entry into industry or one of the medical professions, to train as a prospective teacher, and to prepare for advanced study. The chemistry curriculum is designed to accomplish the above objectives through contact with specific chemistry content, exposure to laboratory experiences, and encouragement of the creative process and independent research. The degree program is flexible so that an individual can best prepare for his specific career. Students are encouraged to choose supporting work and electives which reinforce their knowledge of chemistry.¹

Recommended 4-Year Curriculum – Biochemistry Option

FRESHMAN YEAR

First Semester		Credit Hours	Second Semester		Credit Hours
CHEM 1311	General Chemistry I	3	CHEM 1312	General Chemistry II	3
CHEM 1111	General Chemistry I Lab	1	CHEM 1112	General Chemistry II Lab	1
BIOL 1306	General Biology I	3	BIOL 1307	General Biology II	3
BIOL 1106	General Biology I Lab	1	BIOL 1107	General Biology II Lab	1
ENGL 1301	Grammar and Composition I	3	MATH 2414	Calculus II	4
MATH 2413	Calculus I	4	ENGL 1302	Grammar and Composition II	3
Total Semester Hours		15	Total Semester Hours		15

SOPHOMORE YEAR

First Semester		Credit Hours	Second Semester		Credit Hours
Approved Elective ⁶	Various Course Options	3	CHEM 3344	Organic Chemistry II	3
CHEM 3342	Organic Chemistry I	3	CHEM 3145	Organic Chemistry II Lab	1
CHEM 3143	Organic Chemistry I Lab	1	PHYS 2326	University Physics II	3
PHYS 2325	University Physics I	3	PHYS 2126	University Physics II Lab	1
PHYS 2125	University Physics I Lab	1	MATH 3404	Multivariate Calculus	4
CHEM 3310	Analytical Chemistry	3	World or European Literature ²	Various Course Options	3
CHEM 3111	Analytical Chemistry Lab	1			
Total Semester Hours		15	Total Semester Hours		15

JUNIOR YEAR

First Semester		Credit Hours	Second Semester		Credit Hours
HIST 1301	US History I	3	HIST 1302	US History II	3
MATH 3203	Matrix Methods in Science and Engineering	2	CHEM 3354	Physical Chemistry II	3
CHEM 3352	Physical Chemistry I	3	CHEM 3155	Physical Chemistry II Lab	1
CHEM 3153	Physical Chemistry I Lab	1	CHEM 3320	Inorganic Chemistry	3
BIOL ⁷	Advanced Biology Option	4	CHEM 3121	Inorganic Chemistry Lab	1
Visual and Performing Arts ⁴	Various Course Options	3	BIOL ⁷	Advanced Biology Option	4
Total Semester Hours		16	Total Semester Hours		15

SENIOR YEAR

First Semester		Credit Hours	Second Semester		Credit Hours
POLS 2325	Intro. American Government	3	POLS 2306	Intro. Texas Politics	3
CHEM 4330 ⁶	Advanced Inorganic Chemistry ⁶	(3)	CHEM 4312	Instrumental Analysis	3
CHEM 4334	Biochemistry I	3	CHEM 4113	Instrumental Analysis Lab	1
CHEM 3145	Biochemistry I Lab	1	CHEM 4336	Biochemistry II	3
Humanities ³	Various Course Options	3	CHEM 4240	Spectroscopy	2
Social & Behavioral ⁵	Various Course Options	3	CHEM 4336 ⁶	Advanced Organic Chemistry ⁶	(3)
			CHEM 4191	Seminar	1
	Total Semester Hours	13 or 16		Total Semester Hours	13 or 16

Total hours must equal at least 120 hours.

See General Baccalaureate Degree Requirements (UT Tyler 2006-2008 Undergraduate/Graduate Catalog, pp. 29-30).

NOTES:

¹ Consult with your advisor for additional information on degree requirements and schedule planning.

² World or European Literature (ENGL 2322, 2323, 2362 or 2363).

³ Humanities (ENGL 2310, 2350; PHIL 1301,2306; HIST 2321,2322; SPCM 1315).

⁴ Visual and Performing Arts (ART 1301, 2303, 2304; MUSI 1306, 2301; THTR 1301, 1356).

⁵ Social & Behavioral Sciences (ANTH 2346; ECON 1301, 2301, 2302; GEOG 1313; HIST 2321, 2322; JOUR 2307; PSYC 1301; SOCI 1301, 1306).

⁶ Advanced Chemistry Elective (3 semester hours): Either CHEM 4330 Advanced Inorganic Chemistry or CHEM 4336 Advanced Organic Chemistry (CHEM 4330 offered in fall and CHEM 4336 offered in spring).

⁷ Advanced Biology Electives (8 semester hours): BIOL 3332/3133 Genetics/Genetics Laboratory, BIOL 3334/3134 Cell Biology/Cell Biology Laboratory, or BIOL 4300/4101 Microbiology/Microbiology Laboratory.

The B.S. in Chemistry (Biochemistry Option) is approved by the American Chemical Society (ACS). Students who receive a Bachelor of Science degree in Chemistry (Biochemistry Option) and complete the ACS-approved curriculum will graduate as ACS-certified chemists.