

College of Science, Technology, Engineering & Mathematics

Chemistry BS (103-114 Credits)

Why major in Chemistry?

Chemistry is often referred to as the central science because of the way that it brings together mathematics, physics and computer science with biology, medicine, environmental science, forensic science, and earth science. It can involve either basic or applied studies in the broad areas of physical, organic, analytical, inorganic, or biochemistry. The Bachelor of Science in Chemistry provides preparation for students planning employment as chemists. It is appropriate for some students who plan to enter professional schools; such as dentistry or public and environmental health.

Other Degree Options

BS Biochemistry, BS Chemistry –
Forensic Science,
BS Environmental Science -
Chemistry

Career Opportunities

Chemist, Public Health Professional,
Environmental Scientist, College
Professor, Research Scientist

Department Chair

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Student Success Coordinator

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Suggested/Sample Schedule for New Freshmen

Year	Fall	Winter	Spring
Freshman	CHEM 171 (4 cr.) CHEM 171L (1 cr.) MATH 161 (5 cr.) ENGL 101 (5 cr.)	CHEM 172 (4 cr.) CHEM 172L (1 cr.) MATH 162 (5 cr.) ENGL 201 (5 cr.)	BACR (5 cr.) CHEM 173 (4 cr.) CHEM 173L (1 cr.) MATH 163 (5 cr.)
Sophomore	BACR (5 cr.) CHEM 304 (6 cr.) PHYS 151 (4 cr.) PHYS 161 (1 cr.)	Diversity (5 cr.) Gen. Elective (5 cr.) PHYS 152 (4 cr.) PHYS 162 (1 cr.)	Gen. Elective (5 cr.) Gen. Elective (5 cr.) PHYS 153 (4 cr.) PHYS 163 (1 cr.)
Junior	BACR (5 cr.) Gen. Elective (5 cr.) CHEM 351 (4 cr.)	Gen. Elective (5 cr.) Gen. Elective (5 cr.) CHEM 352 (4 cr.) CHEM 372 (3 cr.)	BACR (5 cr.) CHEM 353 (3 cr.) CHEM 373 (3 cr.) CHEM 420 (5 cr.)
Senior	CHEM 499 (var.) Global (5 cr.) CHEM 421 (5 cr.) CHEM 431 (1 cr.)	CHEM 422 (5 cr.) CHEM 423 (3 cr.) CHEM 499 (var.)	CHEM 490 or CHEM 491 CHEM 423 (3 cr.) CHEM 433 (2 cr.) Maj. Electives (6 cr.)

My Plan

Year	Fall	Winter	Spring
Freshman			
Sophomore			
Junior			
Senior			

Required Supporting Courses: MATH 161, MATH 162, MATH 163, PHYS 151, PHYS 152, PHYS 153, PHYS 161, PHYS 162, PHYS 163

Course Number	Course Name	Cr.	Prerequisites	Quarters Offered
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Core Courses

CHEM 171	General Chemistry I & Lab I	4	MATH 141, CHEM 100	F,W,S
CHEM 172	General Chemistry II & Lab II	4	CHEM 171	F,W,S
CHEM 173	General Chemistry III & Lab III	4	CHEM 172	F,W,S
CHEM 304	Quantitative Analysis	6	CHEM 173 & 173L	F,W
CHEM 319	Modern Inorganic Chemistry	4	CHEM 173	W
CHEM 351	Organic Chemistry	4	CHEM 173 & 173L	F,W
CHEM 352	Organic Chemistry	4	CHEM 351	W,S
CHEM 353	Organic Chemistry	3	CHEM 352	F,S
CHEM 372	Organic Chemistry Lab I	3	CHEM 351	W,S
CHEM 421	Physical Chemistry	4	PHYS 153, MATH 162	F
CHEM 422	Physical Chemistry	4	CHEM 421	W
CHEM 423	Physical Chemistry	3	CHEM 422	S
CHEM 431	Physical Chemistry Lab	1	CHEM 421	F
CHEM 432	Physical Chemistry Lab	2	CHEM 422	W
CHEM 433	Physical Chemistry Lab	2	CHEM 423	S

Focus Courses (Choose one of the following: CHEM 418, CHEM 419, CHEM 420 – offered in Spring)

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Chemistry Elective Courses (Choose 6 credits of 300-400 level CHEM courses)

Senior Thesis/Capstone Course

491 or 490	Senior Thesis/Senior Capstone	4-6		F,W,S
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Flight Plan to Success

	Fall	Winter	Spring	
First Year	Take a first year seminar course	Meet with your academic advisor every term	Attend at least three campus events/activities	Explore interests and begin planning path at EWU
	Visit Career Services or take a Career Exploration course	Join a student club/organization in SAIL	Talk to professor in a major you're interested in pursuing	
Second Year	Meet with your advisor	Join a science club	Apply for summer internships	Declare major, participate in academic projects or research
	Declare your Major!	Attend a lecture series	Use SOAR to track degree progress	
Third Year	Meet with faculty advisor	Make an appointment with career advisor	Prepare resume and have it reviewed by a Career Advisor	Work with faculty on a project, plan for life after college
	Attend lecture series	Identify possible Junior year project	Identify faculty mentor for a possible directed study project	
Fourth Year	Meet with faculty advisor	Grad school? Take GRE, update resume and apply!	Complete directed-study research project	Graduate with a Chemistry/Biochemistry degree from EWU!
	Apply for graduation	Want a job? Update cover letter and resume, Visit the Career Center	Use SOAR to track degree progress	