BIOCHEMISTRY B.S.



ACADEMIC ADVISING

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Location: Main Hall 208

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• Appointments: www.uccs.edu/advising/current-students
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GENERAL ACADEMIC INFORMATION

Minimum Graduation Requirements

- 120 credit hours
- 45 upper-division credit hours (3000-4999 level)
- 2.0 CU cumulative GPA
- Residency: Last 30 credit hours of degree must be completed while registered in the College of Letters, Arts, and Sciences at UCCS

Student Responsibilities

Students are required to know and follow:

- All academic policies set forth by the University, College, and academic department in the UCCS Catalog: <u>catalog.uccs.edu</u>
- All course prerequisites designated by the University. Failure to meet course prerequisites may result in an administrative drop of the course from a student's schedule. See degree audit for course prerequisites within the academic major.

DEGREE REQUIREMENTS

Explore Biochemistry: Degree and Career Information | Department of Chemistry & Biochemistry (uccs.edu)

	Ma	ajor Requirements			
Biochemistry Major	Course/Area	Course Title	Credit Hours		
(58 hours)	CHEM 1401/1402	General Chemistry I and Lab I	5		
	CHEM 1511/1513	General Chemistry for Majors II and Lab II	5		
Requires a minimum of 58 credit	CHEM 2201	Introduction to Biochemical Principles	3		
hours of CHEM course work, and an additional 17 hours of auxiliary	CHEM 3101	Organic Chemistry I	3		
coursework.	CHEM 3103	Organic Chemistry Lab for Biochemistry Majors I	1		
	CHEM 3111	Organic Chemistry II	3 3		
 Requires a minimum of 16 credit 	CHEM 3113	Organic Chemistry Lab for Biochemistry Majors II	1		
hours of upper-division (3000-4999	CHEM 4001/4002	Analytical Chemistry and Lab	4		
level) CHEM course work.	CHEM 4221	Biochemistry I	3		
All CHEM and auxiliary courses must	CHEM 4222	Biochemistry Laboratory	3		
have a grade of "C" or better.	CHEM 4231	Biochemistry II			
nave a grade of C. of better.		Advanced Techniques in Biochemistry			
	OR	OR	3		
	CHEM 4502	Bioanalytical Techniques			
	CHEM 4261	Advanced Biochemistry	3		
	CHEM 4701	Biophysical Chemistry (spring only)	3		
	CHEM 4921	Biochemistry Capstone	3		
	Electives	Complete 12 hours of upper-division (3000+ level) Chemistry Electives. Up	1 4 3 3 3 3		
		to 6 hours may be from CHEM 4904 and 4905.			
	CHEM 4502 Bioanalytical Techniques CHEM 4261 Advanced Biochemistry CHEM 4701 Biophysical Chemistry (spring only) CHEM 4921 Biochemistry Capstone Electives Complete 12 hours of upper-division (3000+ level) Chemistry Electives. Up				
	BIOL 1350	General Biology II: Intro to the Cell	3		
	MATH 1330	Calculus for Life Sciences	4		
	PES 1110/1160 General Physics I and Lab				
	PES 1120/2160	General Physics II and Lab	5		

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G	eneral Education and Elective R	equirements			
Core Writing Requirement (6 hours)	 ENGL 1310, 1308, or 1305 (Students choosing EN ENGL 1410 PORT 3000 (0 Credits) – Writing Portfolio 	NGL 1305 must complete ENGL 1300 first.)			
Reasoning Skills (4 hours) Area Requirements (28 hours)	MATH 1330 CHEM 4001 Humanities – 9 credit hours of which 3 credits m	ust be HUM 3990.			
Maximum 2 courses from any one discipline may be applied to the area requirements	 Social Sciences – 9 credit hours Natural Sciences – 10 credit hours as listed in auxiliary requirements - PES 1110, PES 1120, PES 1160, PES 2160 NOTE: Cannot select courses from primary major courses for area requirements. 				
Oral Communication, Cultural Diversity, and Global Awareness Requirements	One course from each list (see degree audit). All courses that fulfill these requirements may also count towards other general education or major requirements.				
LAS Language other than English Requirement		glish equivalent to 1010 & 1020 with high school, transfer, to fulfill this requirement may also count toward Compass general electives. See degree audit for details.			
Compass Curriculum (9 hours) Explore and Navigate courses must be outside major and area requirements Writing Intensive, Inclusiveness, and Sustainability courses can count towards other requirements within degree	Component Gateway Explore – Arts, Humanities and Cultures Explore – Society, Behavior and Health Explore – Physical and Natural World Navigate Summit Writing Intensive Courses (WIC) Two courses with one upper-division (3000+ level) Inclusiveness	Course GPS 1010 See Degree Audit See Degree Audit BIOL 1350 (included in auxiliary requirements) HUM 3990 (included in LAS area requirements) CHEM 4921 (included in major requirements) HUM 3990 (included in LAS area requirements) CHEM 1511 (included in major requirements) See Degree Audit			
General Electives (12 hours)	Sustainability Complete additional courses to meet total and upper-	See Degree Audit			

FOUR-YEAR DEGREE PLAN

Please note that this is an example degree program and your program may vary. Students are responsible for completing all course prerequisites.

ne	1	FALL	Hours	J	SPRING	Hours
		ENGL 1310	3		ENGL 1410	3
ō		MATH 1330	4		CHEM 1511/1513	5
ear		CHEM 1401/1402	5		BIOL 1350	3
Ϋ́e		GPS 1010	3		Explore – Society, Behavior and Health Course	3
		TOTAL	15		TOTAL	14

	1	FALL	Hours	1	SPRING	Hours
Year Two		CHEM 3101/3103	4		CHEM 3111/3113	4
		PES 1110/1160	5		PES 1120/2160	5
		Explore – Arts, Humanities & Cultures Course	3		CHEM 2201	3
		Social Science Elective (Global Awareness)	3		Humanities Elective	3
		TOTAL	15		TOTAL	15

ee	1	FALL	Hours	1	SPRING	Hours
		CHEM 4001/4002	4		CHEM 4222	3
] F		CHEM 4221	3		CHEM 4231	3
F		HUM 3990	3		CHEM 4701	3
ear		UD (Upper-Division) CHEM Elective	3		UD CHEM Elective	3
× ×		Social Science Elective	3		Humanities Elective	3
		TOTAL	16		TOTAL	15

_	1	FALL	Hours	1	SPRING	Hours
		CHEM 4232 or CHEM 4502	3		CHEM 4261	3
o O		CHEM 4921 (Oral Communication)	3		UD CHEM Elective	3
ear F		UD CHEM Elective	3		General Elective	3
		Social Science Elective	3		General Elective (Cultural Diversity)	3
>		General Elective (Inclusiveness)	3		General Elective (Sustainability)	3
		TOTAL	15		TOTAL	15