BIOCHEMISTRY B.A.

Secondary Education Option



ACADEMIC ADVISING

Partnering with students to successfully navigate college

Location: Main Hall 208 Phone: 719.255.3260 Website: www.uccs.edu/advising

GENERAL ACADEMIC INFORMATION

Minimum Graduation Requirements

- 1. 120 credit hours
- 2. 45 upper-division credit hours (3000-4999 level)
- 3. 2.0 CU cumulative GPA
- 4. Residency: Last 30 credit hours of degree must be completed while registered in the College of Letters, Arts, and Sciences at UCCS

Connect With Your Advisor

Current UCCS Students

Appointments: <u>www.uccs.edu/advising/current-students</u>

• Drop In Advising: Most Wednesdays, 1:00pm - 4:00pm Prospective Students: <u>www.uccs.edu/admissions/contact</u>

Student Responsibilities

Students are required to know and follow:

- 1. All academic policies set forth by the University, College, and academic department in the UCCS Catalog: <u>catalog.uccs.edu</u>
- 2. 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.

MAJOR INFORMATION

Chemistry is the science about substances, their composition, structure, properties, and interactions. Chemistry helps explain the world and its workings and plays an important role in our lives. Chemists have contributed a great deal to technical advances of society and have made many important contributions to modern life. Everything is made from one or more chemical elements that occur in nature. Chemists use different kinds of chemical processes to make the elements found in nature more useful, and they create countless products that make our lives healthier, easier, and more enjoyable. There are as many specialties as there are areas of application of chemical principles. Biochemistry is the study of the structure, composition, and chemical reactions of substances in living systems.

	N	1ajor Requirements					
Biochemistry Major	Course/Area	Course Title	Credit Hours				
(33 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 33 credit	CHEM 2201	Introduction to Biochemical Principles	3				
hours of CHEM course work	CHEM 3101/3102	Organic Chemistry I and Lab II	4				
Requires a minimum of 16 credit	CHEM 3111/3112	Organic Chemistry II and Lab II	4				
hours of upper-division (3000+ level)	CHEM 4001/4002	Analytical Chemistry and Lab	4				
CHEM course work.	CHEM 4211	Biochemistry	3				
	CHEM 4701	Biophysical Chemistry	3				
All CHEM courses must have a grade	Electives	Complete 2 hours of upper-division (3000+ level) Chemistry Electives.	2				
of "C" or better.	Auxiliary Requirements						
**	BIOL 1350/1360	General Biology: Intro to the Cell & Lab					
*Students must contact the department chair in the semester prior to that in	GEOL 1010	Physical Geology	4				
which they wish to teach to determine an	MATH 1330	Calculus for Life Sciences	4				
appropriate lab to teach.	PES 1110/1160	General Physics I and Lab I	5				
	PES 1120/2160	General Physics II and Lab II	5				
	PES 1050 OR	General Astronomy I OR	3				
	PES 1050	General Astronomy II					
UCCS Teach Courses	UTED 1010	Step I: Inquiry Approaches to Teaching	1				
(32 hours)	UTED 1020	Step II: Inquiry-Based Lesson Design	1				
	UTED 2010	Knowing and Learning in Mathematics and Science	3				
 A grade of "B-" or better must be 	UTED 3020	Classroom Interactions	3				
earned in all Education courses.	UTED 4710	Project-Based Instruction	3				
	UTED 4720	Reading in the Content Area	3				
 Courses should be taken in the 	UTED 4730	Apprentice Teaching UCCS Teach and Seminar	12				
appropriate semester. See the four-	UTLS 3030	Perspectives on Science and Math	3				
year plan for details.	UTLS 3040	Science Research Methods	3				

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G	eneral Education and Elective F	Requirements			
Composition (6 hours)	1. ENGL 1310 2. ENGL 1410 3. PORT 3000 (0 Credits) – Writing Portfolio				
Reasoning Skills (4 hours) Area Requirements	 MATH 1330 CHEM 4001 Humanities – 9 credit hours of which 3 cred 	lits must be HUM3990.			
 (28 hours) Maximum 2 courses from any one discipline may be applied to the area requirements Courses may not be taken pass/fail 	 Social Sciences – 9 credit hours Natural Sciences – as listed in course 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	ersity, One course from each list (see degree audit). All courses that fulfill these requirements may also count towards o				
 Compass Curriculum (12 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 PSY 1000 BIOL 1350 HUM 3990 (included in LAS area requirements) UTED 4730 (included in major requirements) 1. HUM 3990 (included in LAS area requirements) 2. See Degree Audit See Degree Audit			
	Sustainability	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.

a	\checkmark	FALL	Hours	\checkmark	SPRING	Hours
		GPS 1010	3		ENGL 1410	3
ŝ		ENGL 1310	3		CHEM 1511/1513	5
ear O		CHEM 1401/1402	5		MATH 1330	4
		UTED 1010	1		UTED 1020	1
>		Explore – Arts, Humanities & Cultures Course	3		Social Science Elective	3
		TOTAL	15		TOTAL	16

	\checkmark	FALL	Hours	\checkmark	SPRING	Hours
9		CHEM 3101/3102	4		CHEM 3111/3112	4
_ 2		PES 1110/1160	5		PES 1120/2160	5
ar		UTED 2010	3		UTED 3020	3
Ye		Social Science Elective	3		CHEM 2201	3
		TOTAL	15		TOTAL	15

ee	\checkmark	FALL	Hours	\checkmark	SPRING	Hours
		CHEM 4001/4002	4		UTLS 3030 (Spring Only)	3
Jre		UTLS 3040 (Fall Only)	3		UTED 4710	3
Year Th		HUM 3990	3		BIOL 1350/1360	4
		PES 1050 OR PES 1060	3		GEOL 1010	4
		PSY 1000	3			
		TOTAL	16		TOTAL	14

	\checkmark	FALL	Hours	\checkmark	SPRING	Hours
		CHEM 4211	3		UTED 4730	12
no		UTED 4720	3		CHEM 4701	3
Year F		Upper-Division CHEM Electives	2			
		Humanities Elective	3			
		Social Science Elective	3			
		TOTAL	14		TOTAL	15

NOTE: Students must complete all course requirements other than UTED 4730 before the final semester.