

College of Letters, Arts and Sciences – BS Biochemistry

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Student Success Center Advising Hours:

Monday: 9am-5pm Walk-in Advising
Tuesday–Friday: 9am-4pm Appointments Only

To schedule an appointment, call 719-255-3260. The Student Success Center is located in Main Hall 208.

General Academic Information

Academic Policies

It is the responsibility of each student to know and follow all Academic policies established by the University and the College of Letters, Arts & Sciences (LAS) that are set forth in the Catalog (catalog.uccs.edu).

Course Prerequisites

Students are responsible for knowing and completing all course prerequisites. Course prerequisites are strictly enforced for all classes at UCCS.

Restrictions and Limitations

Students may apply a maximum of 30 credit hours towards the bachelor's degree from course work taken outside the College of Letters, Arts & Sciences. Students may apply a maximum of 8 credit hours of independent study towards the major area of study and a maximum of 16 credit hours towards the bachelor's degree. Students may apply a maximum of 21 credit hours of Military Science/ROTC towards general electives and towards the bachelor's degree.

Probation/Suspension

To remain in good academic standing within the College of Letters, Arts & Sciences, students must maintain a cumulative CU GPA of 2.0, or better. Students whose cumulative CU GPA falls below a 2.0 will be placed on probation for the next semester in which they are enrolled. While on probation students must achieve a minimum semester GPA of a 2.25. If the required semester GPA is not met, the student will be suspended from the College of Letters, Arts & Sciences for a full academic year (Fall and Spring semesters). PLEASE NOTE: While on probation, registration for the subsequent semester will be blocked until final grades are posted for the current semester. This is to verify that the minimum semester GPA for each student has been fulfilled.

Compass Curriculum

Compass Curriculum is the campus-wide general education program at UCCS. The Compass Curriculum has multiple components many of which will coincide with the degree requirements listed in this guide. Please visit the Compass Curriculum website at www.uccs.edu/compasscurriculum, review your degree audit, or check out the Compass Curriculum advising guide for specific course details. The required components are listed below and referenced in the guide.

REQUIRED COMPASS CURRICULUM COMPONENTS:

Component	Course
Gateway	GPS 1010
Explore¹ – Arts, Humanities and Cultures	See List
Explore¹ – Society, Behavior and Health	See List
Explore¹ – Physical and Natural World	See List
Navigate²	HUM 3990
Summit	CHEM 4921
Writing Intensive Course (WIC)³ <i>Two courses with at least one upper-division (3000+ level).</i>	CHEM 1331 HUM 3990
Inclusiveness³	See List
Sustainability³	See List

¹ Explore must be outside major and area requirements.

² Navigate must be outside major requirements.

³ Can count towards other requirements within the Compass Curriculum or within a student's degree program



DEPARTMENT OF CHEMISTRY/BIOCHEMISTRY – BS BIOCHEMISTRY

Department website: www.uccs.edu/chemistry

Degree Requirements	Courses						
<p>BS Biochemistry Major (58 hours)</p> <p>The BS Biochemistry major requires a minimum of 58 credit hours of CHEM course work and a minimum of 16 credit hours of upper-division (3000+ level) CHEM course work.</p> <p>All CHEM courses must have a grade of “C” or better.</p> <p>All auxiliary requirements must be completed in addition to the required major courses.</p>	CHEM 1301	General Chemistry I				5	
	CHEM 1331	General Chemistry II for Majors				5	
	CHEM 3201/3203	Organic Chemistry I and Lab				5	
	CHEM 3211/3213	Organic Chemistry II and Lab				5	
	CHEM 4001/4002	Analytical Chemistry and Lab				4	
	CHEM 4221	Biochemistry I				3	
	CHEM 4222	Biochemistry Laboratory				3	
	CHEM 4231	Biochemistry II				3	
	CHEM 4232	Advanced Techniques in Biochemistry				3	
	CHEM 4241	Biochemistry of the Gene				3	
	CHEM 4251	Membrane Structure and Function				3	
	CHEM 4701	Biophysical Chemistry				3	
	CHEM 4711	Bioinorganic Chemistry				3	
	CHEM 4921	Biochemistry of Human Health and Development				3	
	Electives	<i>Complete 7 hours of Upper Division (3000+ level) Chemistry Electives. Up to 7 hours may be CHEM 4904/4905.</i>				7	
		Auxiliary Requirements					
		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				5	
	PES 1120/2160	General Physics II and Lab				5	
<p>Composition (6 hours)</p>	<i>Complete ENGL 1310, 1410, and the Writing Portfolio.</i>						
	ENGL 1310	Rhetoric & Writing I				3	
	ENGL 1410	Rhetoric & Writing II				3	
	PORT 3000	Writing Portfolio Assessment				0	
<p>Reasoning Skills (4 hours)</p>	Complete the courses listed below. Please note that CHEM 4001 is a required major course and MATH 1330 is part of the auxiliary requirements.						
	MATH 1330					CHEM 4001	
<p>Area Requirements (27 hours)</p> <p>All LAS students are required to complete 9 credit hours in each of three areas - humanities, social sciences, and natural sciences. The total requirement is 27 hours.</p> <p>Specific Limitations: > No more than two courses from any one discipline may be applied to the area requirements. > Courses in the primary major may not be applied to area</p>	HUMANITIES – Complete 9 hours from the list of courses below. <i>Course selection must include one occurrence of HUM 3990.</i>						
	AH 1000	AH 1001	AH 2800	AH 2810	AH 2820	AH 2860	
	AH 2890	AH 3430	COMM 2250	COMM 3100	COMM 3500	COMM 4000	
	ENGL 1500	ENGL 2600	ENGL 2610	ENGL 3320	ENGL 3900	FCS 3180	
	FCS 3190	FCS 3240	FCS 3690	FCS 3890	FCS 4210	FILM 1000	
	FILM 2000	FILM 3690	FR 3240	GER 3180	GER 3190	HIST 1110	
	HIST 1120	HIST 1130	HIST 1140	HIST 1400	HIST 1410	HIST 1600	
	HIST 1610	HUM 3990	ID 2000	MUS 1000	MUS 2050	MUS 2850	
	PHIL 1000	PHIL 1020	PHIL 1120	PHIL 1300	PHIL 3100	PHIL 3160	
	PHIL 3180	PHIL 4070	SPAN 3690	SPAN 4210	THTR 1000	THTR 3201	
	THTR 3202	VA 1010	VA 1020	WEST 2030	WEST 2040	WEST 3020	
	WEST 3100	WEST 3460	WEST 3550	WEST 4050	WEST 4280		
		SOCIAL SCIENCE – Complete 9 hours from the list of courses below.					
	ANTH 1020	ANTH 1040	ANTH 2800	ANTH 3040	ANTH 3260	ANTH 3270	
	COMM 1020	COMM 2150	COMM 3440	COMM4200	COMM 4220	COMM 4250	
	ECON 1000	ECON 1010	ECON 1050	ECON 2020	ECON 3150	ECON 3710	
	GES 1980	GES 1990	GRNT 3000	PHIL 3200	PHIL 4260	PSC 1010	

requirements. > Courses may not be taken pass/fail.	PSC 1100	PSC 2080	PSC 2100	PSC 3300	PSC 4190	PSC 4210
	PSC 4470	PSY 1000	SOC 1110	SOC 2120	SOC 2200	SOC 2220
	SOC 2250	SOC 2500	SOC 3340	SOC 3610	WEST1010	WEST 3000
	WEST 3060	WEST 3070	WEST 3090	WEST 3620	WEST 4100	WEST 4120
	NATURAL SCIENCE – Complete the courses below. Please note that these courses also are part of the auxiliary requirements for the major.					
	PES 1110	PES 1120	PES 1160	PES 2160		
Oral Communication, Cultural Diversity, and Global Awareness Requirements Students are required to take one course with a substantial component involving oral communication, one course that increases their awareness of cultural diversity, and one course that increases their awareness of global issues. <i>All courses in this section can count towards other requirements. Courses marked with an asterisk (*) can count towards specific requirements; courses without an asterisk will count towards General Electives.</i>	ORAL COMMUNICATION – Complete one of the courses listed below.					
	CHEM 4911*	CHEM 4921*	COMM 2010	COMM 2100	COMM 3240	COMM 4100
	PES 4810	PHIL 1040	PHIL 4950	TED 4600	TED 4700	THTR2020
	THTR 2030	THTR 2040	THTR 2050	THTR 3100		
	CULTURAL DIVERSITY – Complete one of the courses listed below.					
	AH 3430	ANTH 3250	ANTH 3420	ASL 4000	COMM 3280	ENGL 3320*
	ENGL 4060	FCS 3360	FCS 4210*	GES 4680	HIST 3520	HIST 3580
	MUS 2050*	PHIL 3180*	PHIL 3230	PHIL 4550	SOC 2200*	SOC 2250*
	SOC 3220	SOC 3250	SOC 3290	SOC 4240	SOC 4290	SOC 4390
	SOC 4680	SPAN 4210*	SPAN 4420	THTR 3240	WEST 1010*	WEST 2020
	WEST 3090	WEST 3130	WEST 3150	WEST 3250	WEST 3290	WEST 3360
	WEST 3420	WEST 3520	WEST 3580	WEST 4120*	WEST 4280*	WEST 4550
	WEST 4680					
	GLOBAL AWARENESS – Complete one of the courses listed below.					
	ANTH 1040*	ANTH 3040*	AH 3450	AH 3460	AH 4450	AH 4470
	BIOL 1510*	CHEM 1111*	CHEM 4521*	ECON 3590	ECON 3710*	ENGL 2600*
	ENGL 2610*	ENGL 4065	FCS 3180*	FCS 3190*	FCS 3250	FCS 3340
	FCS 3380	FCS 3690*	FCS 3890*	FILM 2000*	FILM 3690*	FR 3250
	GER 3180*	GER 3190*	GES 1980*	GES 1990*	GES 3070	GES 3400
	GES 3820	GES 3980	GRNT 3560	GES 4640	HIST 1110*	HIST 1120*
	HIST 1130*	HIST 1140*	HIST 1400*	HIST 1410*	HIST 1600*	HIST 1610*
	HIST 3220	HIST 3560	HIST 3590	HIST 3680	HIST 4050	HIST 4060
	HIST 4130	HIST 4150	HIST 4160	HIST 4280	HIST 4860	MUS 3150
PHIL 1300*	PHIL1400	PHIL 3100*	PHIL 3240	PHIL 3400	PHIL 3480	
PHIL 3490	PHIL 3500	PSC 1010*	PSC 2070	PSC 2080*	PSC 2090	
PSC 4170	PSC 4190*	PSC 4210*	PSC 4570	PSC 4580	PSC 4590	
PSY 3560	SOC 2220*	SOC 3340*	SOC 4380	SOC 4700*	SPAN 3690*	
WEST 3340	WEST 3380	WEST 3480*	WEST 3560	WEST 3680	WEST 4050	
WEST 4060	WEST 4150	WEST 4170	WEST 4380	WEST 4700*		
Compass Curriculum (12 hours)	Complete all Compass Curriculum requirements not already completed as part of the above program. The Gateway Seminar (GPS 1010) must be completed by all students. Explore courses must be completed outside of the major and Area Requirements. All other Compass Curriculum requirements can be completed within the degree requirements above. To see a list of all Compass Curriculum courses, please visit: www.uccs.edu/compasscurriculum .					
General Electives (9 hours)	Complete additional courses to meet total and upper-division requirements for your degree program.					

UCCS Bachelor of Science, BS Biochemistry Major Degree Requirements

- > A minimum of 120 hours must be completed with a cumulative CU grade point average of 2.0; at least 45 of these hours must be at the upper-division level (courses numbered 3000-4999).
- > No more than 60 hours of CHEM course work can count towards the degree.
- > The last 30 hours of the degree must be completed while registered in the College of Letters, Arts and Sciences at UCCS.
- > Courses numbered below 1000 do not count towards degree completion.



Four-Year Degree Plan – BS Biochemistry

The following four-year plan lists all the specific course requirements for the Bachelor of Science in Biochemistry degree at UCCS. The order in which these courses are taken may vary with course availability. **Students are responsible for completing all course prerequisites.** Please note that this is a *suggested* degree program; your program may vary.

Suggested First Year

FALL			SPRING		
√	Course	Hours	√	Course	Hours
	ENGL 1310	3		ENGL 1410	3
	MATH 1330	4		CHEM 1331	5
	CHEM 1301	5		BIOL 1350	3
	GPS 1010	3		Explore – Society, Behavior and Health Course	3
	TOTAL	15		TOTAL	14

Suggested Second Year

FALL			SPRING		
√	Course	Hours	√	Course	Hours
	CHEM 3201/3203	5		CHEM 3211/3213	5
	PES 1110/1160	5		PES 1120/2160	5
	Explore – Arts, Humanities & Cultures Course	3		Social Science Elective	3
	Explore – Physical & Natural World Course	3		General Elective	3
	TOTAL	16		TOTAL	16

Suggested Third Year

FALL			SPRING		
√	Course	Hours	√	Course	Hours
	CHEM 4001/4002	4		CHEM 4222	3
	CHEM 4221	3		CHEM 4231	3
	CHEM 4701	3		CHEM 4241	3
	Humanities Elective	3		HUM 3990	3
	General Elective	3		Humanities Elective	3
	TOTAL	16		TOTAL	15

Suggested Fourth Year

FALL			SPRING		
√	Course	Hours	√	Course	Hours
	CHEM 4232	3		CHEM 4921	3
	CHEM 4251	3		UD CHEM Elective	3
	CHEM 4711	3		Social Science Elective	3
	UD CHEM Elective	4		General Elective	3
	Social Science Elective	3			
	TOTAL	16		TOTAL	12