# **BIOCHEMISTRY B.A.**

**Pre-Med Option** 



## **ACADEMIC ADVISING**

Partnering with students to successfully navigate college

Location: Main Hall 208

Phone: 719.255.3260

Website: Academic Advising

#### **Connect With Your Advisor**

**Current UCCS Students** 

• Appointments: <a href="https://www.uccs.edu/advising/current-students">www.uccs.edu/advising/current-students</a>
Prospective Students: <a href="https://www.uccs.edu/admissions/contact">www.uccs.edu/advising/current-students</a>

#### **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)

	Majo	r Requirements						
Biochemistry Major	Course/Area	Course Title	Credit Hours					
Pre-Med Option	CHEM 1401/1402	General Chemistry I	5					
(49 hours)	CHEM 1511/1513	General Chemistry for Majors II and Lab II	5					
- Descripes a principal of 40 and it	CHEM 2201	Introduction to Biochemical Principles						
<ul> <li>Requires a minimum of 49 credit hours of CHEM course work, and an</li> </ul>	CHEM 3101	Organic Chemistry I	3					
additional 25 hours of auxiliary	CHEM 3103	Organic Chemistry Lab for Biochemistry Majors I	1					
coursework.	,	Organic Chemistry II	3					
	CHEM 3113	Organic Chemistry Lab for Biochemistry Majors II	1					
<ul> <li>Requires a minimum of 16 credit</li> </ul>	CHEM 4001/CHEM 4002	Analytical Chemistry and Lab	4					
hours of upper-division (3000-4999	CHEM 4201	Current Perspectives in Science and Medicine	3					
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	3					
	CHEM 4701	Biophysical Chemistry (spring only)	3					
	CHEM 4921	Biochemistry Capstone	3					
	Electives	Complete 6 hours of upper-division (3000+ level) Chemistry Electives.  Up to 6 hours may be from CHEM 4904/4905.	6					
	Auxiliary Requirements							
	BIOL 1300/1310	General Biology: Organismic Biology and Lab	4					
	BIOL 1350/1360	General Biology: Introduction to the Cell and Lab	4					
	MATH 1330	Calculus for Life Sciences	4					
	PES 1110/1160	General Physics I and Lab	5					
	PES 1120/2160 General Physics II and Lab							
	Ethics Course	Complete one of the following courses: PHIL 3130, 3160 or 3180	3					

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Core Writing Requirement	<ul> <li>eneral Education and Elective R</li> <li>ENGL 1310, 1308, or 1305 (Students choosing El</li> </ul>	NGL 1305 must complete FNGL 1300 first )			
(6 hours)	ENGL 1310, 1308, oil 1308 (Stational Choosing ENGL 1308 mast complete ENGL 1300 )irst.)     ENGL 1410				
,	PORT 3000 (0 Credits) – Writing Portfolio				
Reasoning Skills	MATH 1330				
(4 hours)	• CHEM 4001				
Area Requirements	Humanities – 9 credit hours – ENGL 1500, HUM	3990, PHIL 3130, 3160 or 3180			
(29 hours)	Social Sciences – 10 credit hours - PSY 1000, SOC	C 1110 and one other			
<ul> <li>Maximum 2 courses from any one</li> </ul>	Natural Sciences – 10 credit hours as listed in auxiliary requirements - PES 1110, PES 1120, PES 1160, PES 2160				
discipline may be applied to the area					
requirements	NOTE: Cannot select courses from primary major	r courses for area requirements.			
Oral Communication, Cultural Diversity,	One course from each list (see degree audit). All courses that fulfill these requirements may also count towards other				
	One course from each list (see degree addit). All cours	es that fulfil these requirements may also count towards other			
and Global Awareness Requirements	general education or major requirements.				
*	general education or major requirements.	glish equivalent to 1010 & 1020 with high school, transfer,			
and Global Awareness Requirements	general education or major requirements.  Complete two semesters of a language other than En				
and Global Awareness Requirements  LAS Language other than English	general education or major requirements.  Complete two semesters of a language other than En	glish equivalent to 1010 & 1020 with high school, transfer, to fulfill this requirement may also count toward Compass			
and Global Awareness Requirements  LAS Language other than English	general education or major requirements.  Complete two semesters of a language other than Englacement exam, or UCCS coursework. Courses taken	glish equivalent to 1010 & 1020 with high school, transfer, to fulfill this requirement may also count toward Compass			
and Global Awareness Requirements  LAS Language other than English  Requirement	general education or major requirements.  Complete two semesters of a language other than Englacement exam, or UCCS coursework. Courses taken Curriculum Explore - Arts, Humanities and Cultures or	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.			
and Global Awareness Requirements  LAS Language other than English Requirement  Compass Curriculum (9 hours)	general education or major requirements.  Complete two semesters of a language other than Englacement exam, or UCCS coursework. Courses taken Curriculum Explore - Arts, Humanities and Cultures or Component	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.  Course			
and Global Awareness Requirements  LAS Language other than English Requirement  Compass Curriculum (9 hours)  Explore and Navigate courses must be	general education or major requirements.  Complete two semesters of a language other than Englacement exam, or UCCS coursework. Courses taken Curriculum Explore - Arts, Humanities and Cultures or Component  Gateway	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.  Course  GPS 1010  See Degree Audit See Degree Audit			
and Global Awareness Requirements  LAS Language other than English Requirement  Compass Curriculum (9 hours)  Explore and Navigate courses must be outside major and area requirements	general education or major requirements.  Complete two semesters of a language other than Englacement exam, or UCCS coursework. Courses taken Curriculum Explore - Arts, Humanities and Cultures or Component  Gateway  Explore – Arts, Humanities and Cultures	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.  Course  GPS 1010  See Degree Audit			
and Global Awareness Requirements  LAS Language other than English Requirement  Compass Curriculum (9 hours)  Explore and Navigate courses must be outside major and area requirements Writing Intensive, Inclusiveness, and	general education or major requirements.  Complete two semesters of a language other than Enplacement exam, or UCCS coursework. Courses taken Curriculum Explore - Arts, Humanities and Cultures or Component  Gateway  Explore - Arts, Humanities and Cultures  Explore - Society, Behavior and Health	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.  Course  GPS 1010  See Degree Audit See Degree Audit			
and Global Awareness Requirements  LAS Language other than English Requirement  Compass Curriculum (9 hours)  Explore and Navigate courses must be outside major and area requirements Writing Intensive, Inclusiveness, and Sustainability courses can count	general education or major requirements.  Complete two semesters of a language other than Englacement exam, or UCCS coursework. Courses taken Curriculum Explore - Arts, Humanities and Cultures or Component  Gateway  Explore - Arts, Humanities and Cultures  Explore - Society, Behavior and Health Explore - Physical and Natural World	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.  Course  GPS 1010  See Degree Audit  See Degree Audit  BIOL 1350 (included in auxiliary requirements)			
and Global Awareness Requirements  LAS Language other than English Requirement  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	general education or major requirements.  Complete two semesters of a language other than Englacement exam, or UCCS coursework. Courses taken Curriculum Explore - Arts, Humanities and Cultures or Component  Gateway  Explore — Arts, Humanities and Cultures  Explore — Society, Behavior and Health  Explore — Physical and Natural World  Navigate	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.  Course  GPS 1010  See Degree Audit  See Degree Audit  BIOL 1350 (included in auxiliary requirements)  HUM 3990 (included in LAS area requirements)			
and Global Awareness Requirements  LAS Language other than English Requirement  Compass Curriculum (9 hours)  Explore and Navigate courses must be outside major and area requirements Writing Intensive, Inclusiveness, and Sustainability courses can count	general education or major requirements.  Complete two semesters of a language other than Englacement exam, or UCCS coursework. Courses taken Curriculum Explore - Arts, Humanities and Cultures or Component  Gateway  Explore - Arts, Humanities and Cultures  Explore - Society, Behavior and Health  Explore - Physical and Natural World  Navigate  Summit	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.  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)			
and Global Awareness Requirements  LAS Language other than English Requirement  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	general education or major requirements.  Complete two semesters of a language other than Englacement exam, or UCCS coursework. Courses taken Curriculum Explore - Arts, Humanities and Cultures or Component  Gateway  Explore - Arts, Humanities and Cultures  Explore - Society, Behavior and Health  Explore - Physical and Natural World  Navigate  Summit  Writing Intensive Courses (WIC)	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.  Course  GPS 1010  See Degree Audit  See Degree Audit  BIOL 1350 (included in auxiliary requirements)  HUM 3990 (included in LAS area requirements)  • HUM 3990 (included in LAS area requirements)			

# **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.

Je	1	FALL	Hours	1	SPRING	Hours
		ENGL 1310	3		ENGL 1410	3
ō		CHEM 1401/1402	5		CHEM 1511/1513	5
ā		BIOL 1300/1310	4		BIOL 1350/1360	4
Ye		GPS 1010	3		MATH 1330	4
		TOTAL	15		TOTAL	16

	1	FALL	Hours	J	SPRING	Hours
9		CHEM 3101/3103	4		CHEM 3111/3113	4
≥		PES 1110/1160	5		PES 1120/2160	5
ear		PSY 1000	3		CHEM 2201	3
≺e		Explore – Arts, Humanities & Cultures Course	3		SOC 1110	4
		TOTAL	15		TOTAL	16

	1	FALL	Hours	J	SPRING	Hours
a		CHEM 4001/4002	4		CHEM 4201	3
ıre		CHEM 4221	3		CHEM 4222	3
Ė		ENGL 1500	3		CHEM 4231	3
ear		Explore – Society, Behavior and Health Course	3		CHEM 4701	3
>		Social Science elective (Global Awareness/Inclusiveness)	3		PHIL 3130, 3160 or 3180	3
		TOTAL	16		TOTAL	15

_	1	FALL	Hours	1	SPRING	Hours
		CHEM 4921	3		UD CHEM Elective	3
		Upper-Division (UD) CHEM Elective	3		UD General Elective (HPNU 3060 recommended)	3
T.		UD General Elective (HPNU 3050 recommended)	3		General Elective (UD Stats course recommended)	3
Yea		HUM 3990	3		General Elective (Sustainability)	3
		General Elective (Cultural Diversity)	3			
		TOTAL	15		TOTAL	12