

## Undergraduate Major Map

**Catalog Year** 2021  
**College / School** Arts, Sciences & Education  
**Major** Chemistry - BA  
**Track / Concentration** Biochemistry  
**Career Path** Four Year Freshman

<b>Fall Term 2021</b> The major map should be used as a general guide. Please make sure to meet regularly with your academic advisor and use your Panther Degree Audit to track your requirements. Also make sure to refer to the Major Map Endnotes for more specific information.  Math placement is based on your Math Placement Score and classes are to be selected in consultation with an advisor. Pre-Calculus math sequence is MAC1105 and MAC 1147.  Please note: Chemistry placement is also determined by your Math Placement Score, and/or completion of MAC 1105					<b>Term Hours:</b> 15
Course Group	Course Required	Course Description	Credit Hours	Course Notes	
General Chemistry	CHM 1045	Gen Chemistry I	3	Also satisfies UCC Natural Science Group 1 course. (1) See endnotes	
General Chemistry	CHM 1045L	Gen Chem Lab I	1	Also satisfies UCC Natural Science Group 1 course. (1) See endnotes	
UCC Communication	ENC 1101	Writing and Rhetoric I	3	Satisfies UCC Communication course 1. (1) See endnotes	
UCC First Year Experience	SLS 1501	First Year Exper	1	Satisfies UCC First Year Experience course. (1) See endnotes	
UCC Arts			3	May satisfy Gordon Rule with Writing (GRW) and/or Global Learning (GL) requirements. Please speak with your advisor.	
Chemistry Math	MAC 2311	Calculus I	4	Also satisfies UCC Mathematics Group 1 course. (1) See endnote	

<b>Spring Term 2022</b>					<b>Term Hours:</b> 14
Course Group	Course Required	Course Description	Credit Hours	Course Notes	
General Chemistry	CHM 1046	Gen Chemistry II	3	Prerequisites: CHM 1045 and CHM 1045L	
General Chemistry	CHM 1046L	Gen Chem Lab II	1		
UCC Communication	ENC 1102	Writing and Rhetoric II	3	Satisfies UCC Communication course 2. (1) See endnotes	
Chemistry Math	MAC 2312	Calculus II	4	Also satisfies UCC Mathematics Group 2 course. (1) See endnotes	
UCC Social Science Group One			3	May satisfy Gordon Rule with Writing (GRW) and/or Global Learning (GL) requirements. Please speak with your advisor. (8) POS 2041 or AMH 2020 recommended if Civic Literacy requirement is not met.	

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<b>Summer Term 2022</b> By end of Summer 1 student should have 30 credits or more. Use this semester to catch up on coursework and/or satisfy the 9 credits summer requirement (if needed). (3) See endnotes				Term Hours: 4
Course Group	Course Required	Course Description	Credit Hours	Course Notes
Intro to Analytical Chemistry	CHM 3120	Intro Analyt Chem	3	Prerequisites: CHM 1046 and CHM 1046L
Intro to Analytical Chemistry	CHM 3120L	Intr Analyt Chm Lab	1	

<b>Fall Term 2022</b>				Term Hours: 15
Course Group	Course Required	Course Description	Credit Hours	Course Notes
Organic Chemistry	CHM 2210	Organc Chem I	4	Prerequisites: CHM 1046 and CHM 1046L
Organic Chemistry	CHM 2210L	Org Chem Lab I	1	
General Biology	BSC 2010	General Biology I	3	
General Biology	BSC 2010L	Gen Biology Lab I	1	
UCC Social Science Group Two			3	May satisfy Gordon Rule with Writing (GRW) and/or Global Learning (GL) requirements. Please speak with your advisor.
UCC Humanities Group One			3	May satisfy Gordon Rule with Writing (GRW) and/or Global Learning (GL) requirements. Please speak with your advisor.

<b>Spring Term 2023</b> May use 3000-4000 Level Electives course to satisfy the Outside of Major requirement  May use electives to satisfy Global Learning (GL) or Gordon Rule with Writing (GRW) requirements. Please speak with your advisor.				Term Hours: 14
Course Group	Course Required	Course Description	Credit Hours	Course Notes
3000-4000 Level Electives			3	
Cognate Area Courses	BSC 2011L	Gen Biology Lab II	1	Also satisfies UCC Natural Science Group 2 lab. (1) See endnotes
Cognate Area Courses	BSC 2011	General Biology II	3	Also satisfies UCC Natural Science Group 2 course. (1) See endnotes
Organic Chemistry	CHM 2211	Organic Chem II	3	Prerequisites: CHM 2210 and CHM 2210L
Organic Chemistry	CHM 2211L	Organic Chem Lab II	1	
UCC Humanities - Group Two			3	May satisfy Gordon Rule with Writing (GRW) and/or Global Learning (GL) requirements. Please speak with your advisor.

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<b>Summer Term 2023</b> 9 credit Summer Requirement met (3). Use this semester to catch up on coursework and/or satisfy the 9 credits summer requirement (if needed). (3) See endnotes  May use electives to satisfy Global Learning (GL) or Gordon Rule with Writing (GRW) requirements. Please speak with your advisor.				<b>Term Hours:</b> 6
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Course Group	Course Required	Course Description	Credit Hours	Course Notes
3000-4000 Level Electives			3	Global Learning Discipline Specific course recommended
3000-4000 Level Electives			3	

<b>Fall Term 2023</b> May use electives to satisfy Global Learning (GL) or Gordon Rule with Writing (GRW) requirements. Please speak with your advisor.				<b>Term Hours:</b> 14
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Course Group	Course Required	Course Description	Credit Hours	Course Notes
Physics Sequence			4	PHY 2048 or PHY2053
Physics Sequence	PHY 2048L	General Phys Lab I	1	
General Electives			3	
3000-4000 Level Electives			3	
General Electives			3	

<b>Spring Term 2024</b> If College of Arts, Sciences & Education Foreign Language requirement has been satisfied or waived, a General Elective may be taken instead to satisfy the Elective Outside the Major requirement (if needed)				<b>Term Hours:</b> 13
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Course Group	Course Required	Course Description	Credit Hours	Course Notes
Biological Chemistry I	CHM 4304	Biol Chemistry I	3	Prerequisites: CHM 1046 and CHM 1046L
Biological Chemistry I	CHM 4304L	Biol Chem I Lab	1	
General Electives			3	
Physics Sequence			4	PHY2049 or PHY2054
Physics Sequence	PHY 2049L	General Phys Lab II	1	
General Electives			1	

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<p><b>Summer Term 2024</b> Use this semester to catch up on coursework and/or satisfy the 9 credits summer requirement (if needed). (3) See endnotes</p>	
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<p><b>Fall Term 2024</b> Apply for Spring graduation</p> <p>College of Arts, Sciences &amp; Education requires 45 credits of 3000 or 4000 level courses, plan accordingly. Consult with your advisor to find out how many more you. This varies for every student, depending on UCC courses selected.</p> <p>May use electives to satisfy Global Learning (GL) or Gordon Rule with Writing (GRW) requirements. Please speak with your advisor.</p>	<p><b>Term Hours:</b> 12</p>
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Course Group	Course Required	Course Description	Credit Hours	Course Notes
Fundamentals of Physical Chemistry	CHM 3400	Fund.Phys.Chm	3	Prerequisite: CHM 3120/L, MAC 2312, PHY 2049 or PHY 2054, PHY 2049L
Fundamentals of Physical Chemistry	CHM 3400L	Fund.Phys.Chm. Lab	1	
Restricted Electives: Additional			3	Restricted Elective CHM 4307 or CHM 4300
3000-4000 Level Electives			1	Could be lab, internship, or research credit. Consult with Academic Advisor
General Electives			3	
Restricted Electives: Additional			1	Restricted Elective Lab CHM 4307L or CHM 4230L

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<b>Spring Term 2025</b> Students are required to take a nationally-normed chemistry examination in their last semester before graduation.  May use electives to satisfy Global Learning (GL) or Gordon Rule with Writing (GRW) requirements. Please speak with your advisor.				<b>Term Hours:</b> 13
Course Group	Course Required	Course Description	Credit Hours	Course Notes
Senior Seminar	CHM 4930	Senior Seminar	1	Can only be completed in final semester of program with advisor permission
Chemistry 4000/5000 Level			3	May not use CHM4910L or CHM4911L and the course must be Biomedically related
3000-4000 Level Electives			3	
3000-4000 Level Electives			3	
Restricted Electives: Additional			3	Lecture Only - See Endnotes

<b>Summer Term 2025</b> Use this semester to catch up on coursework and/or satisfy the 9 credits summer requirement (if needed). (3) See Endnotes	
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### General Requirements

\*Critical Indicator is the minimum grade indicated in specific courses to demonstrate proficiency and progress in major. Earning less than the minimum grade is a trigger for a conversation with advisor\*

#### GENERAL UNIVERSITY REQUIREMENTS

See your Panther Degree Audit (PDA) for a real-time update on your academic career progress and additional information on University and major requirements at <http://my.fiu.edu>

(1) UCC: Students must meet the University Core Curriculum (UCC) requirements. For a full list of UCC courses, see <http://undergrad.fiu.edu/advising/curriculum.html> or speak with your advisor. UCC courses must be taken for a letter grade and may not be taken at other institutions without permission from the Dean of Undergraduate Education.

(2) Global Learning: Freshmen entering FIU Summer B 2010 or later must take at least two Global Learning (GL) designated courses at FIU. See <http://goglobal.fiu.edu>. Courses must be: - 1 GL foundation course (from the University Core Curriculum), which must be taken within the first 60 credits.- 1 GL discipline-specific course (3000/4000 level)

(3) Summer Hours Requirement: All students entering FIU or any university within the State University System (SUS) of Florida with fewer than 60 credit hours are required to earn at least nine credit hours prior to graduation by attending one or more summer terms at a university in the SUS.

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(4) Gordon Rule: All Gordon Rule courses (i.e., English Composition, Humanities, and Mathematics) must be completed with a minimum grade of "C." This requirement must be fulfilled within the first 60 credits.

(5) Foreign Language Requirement for Graduation (FLENT/FLEX): A student who did not complete two years of the same foreign language in high school or at a post-secondary institution must successfully complete 8-10 credit hours of instruction in one foreign language prior to graduation. Exceptions include appropriate CLEP, AP, IB, TOEFL, or transfer credit. Contact your advisor for more information.

(6) Postsecondary Civic Literacy (CL): Students must demonstrate understanding of American Civics via completed course work or test credit. Consult with an advisor to determine the best option for satisfying this requirement.

### College of Arts, Sciences & Education: Selected Requirements

Grades: Students must earn a grade of "C" or higher in all courses required for the major. A grade of "C-" or lower is not acceptable in any required course. See Panther Degree Audit for all CASE and major requirements at <http://my.fiu.edu>.

### College of Arts, Sciences & Education: BA in Chemistry specific requirements

This concentration is intended for students who desire a comprehensive background in chemistry but with emphasis in biological chemistry. The curriculum is designed to contain all of the courses necessary for entry into medical and dental school.

1. Choose from List 1 (Cognate Area Courses):

BSC 2011/BSC2011L

2. Choose from List 2 (Restricted Electives):

CHM4300 & CHM4230L or CHM4307 & CHM4307L and one other lecture course

3. One senior level chemistry elective (CHM4XXX/CHM5XXX)\*\* which is biomedically related.

\*\*CHM4910L or CHM4911L may not be used to satisfy this requirement.

4. Students are required to take a nationally-normed chemistry examination in their last semester before graduation. Please contact the chemistry department for more information.

CHECK PDA FOR ELIGIBLE COGNATE AREA COURSES AND APPROPRIATE RESTRICTED ELECTIVES.