

Undergraduate Major Map

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

Fall Term 2021 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					Term Hours: 15 Cum GPA: 2
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	

Spring Term 2022					Term Hours: 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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Summer Term 2022				Term Hours: 4
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				
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	

Fall Term 2022				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.

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Spring Term 2023 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	
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.
Cognate Area Courses			3	Environmentally Related Topic
Cognate Area Courses			1	Taken only if the Cognate Area Course has a corresponding lab. Some courses do not have a corresponding lab.

Summer Term 2023 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.				Term Hours: 6
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	

Fall Term 2023 May use electives to satisfy Global Learning (GL) or Gordon Rule with Writing (GRW) requirements. Please speak with your advisor.				Term Hours: 14 Cum GPA: 2
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	
General Electives			3	
General Electives			3	

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Spring Term 2024 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)				Term Hours: 12 Cum GPA: 2
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	PHY 2049 or PHY 2054. Also satisfies UCC Natural Science Group 2 course. (1) See Endnotes
Physics Sequence	PHY 2049L	General Phys Lab II	1	Also satisfies UCC Natural Science Group 2 lab. (1) See Endnotes

Summer Term 2024 Use this semester to catch up on coursework and/or satisfy the 9 credits summer requirement (if needed). (3) See endnotes			

Fall Term 2024 Apply for Spring Graduation May use electives to satisfy Global Learning (GL) or Gordon Rule with Writing (GRW) requirements. Please speak with your advisor.				Term Hours: 13 Cum GPA: 2
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			3	The following courses may be used to satisfy this requirement: CHM 3411, CHM 3610, CHM 4220, CHM 4300, and CHM 4307
3000-4000 Level Electives			3	
3000-4000 Level Electives			3	

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<p>Spring Term 2025 Students are required to take a nationally-normed chemistry examination in their last semester before graduation.</p> <p>May use one 3000-4000 Elective to satisfy the Elective Outside the Major requirement (if needed)</p> <p>College of Arts, Sciences & Education requires 48 credits of 3000 or 4000 level courses, plan accordingly.</p> <p>May use electives to satisfy Global Learning (GL) or Gordon Rule with Writing (GRW) requirements. Please speak with your advisor.</p>				<p>Term Hours: 13 Cum GPA: 2</p>
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 MUST be Environmentally related
3000-4000 Level Electives			3	
3000-4000 Level Electives			2	
Restricted Electives	CHM 4130	Instrument Analysis	3	
Restricted Electives	CHM 4130L	Instr Analysis Lab	1	

<p>Summer Term 2025 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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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)

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(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.

(4) Gordon Rule: All Gordon Rule courses (i.e., English Composition, Humanities with Writing, and Quantitative Reasoning) 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.

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. This document only lists SELECTED requirements. See your Panther Degree Audit for a full list of CASE and major requirements at <http://my.fiu.edu>.

College of Arts, Sciences & Education: BA in Chemistry (Environmental Chemistry Concentration) specific requirements This concentration is intended for students who desire a comprehensive background in chemistry but with an interest in applying their expertise in chemistry to environmentally-related careers and issues.

1. Choose from List 1 (Cognate Area Courses): An environmentally-related course.
2. Choose from List 2 (Restricted Electives): CHM4130/4130L and one other lecture course.
3. One senior level chemistry elective (CHM4XXX/CHM5XXX)** which is environmentally-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. NOTE: To earn a Certificate in Environmental Studies (offered by the Department of Environmental Studies), satisfy the College's requirement of 9 credits outside the major by taking the appropriate environmental studies courses.

List 1 - Cognate Area Courses BSC2011/2011L CCJ 3024 EVR 3011 EVR 3013/3013L EVR 4211/4211L
EVR 4312 EVR 4321EVR 4592/4592L GLY 3202/3202L GLY 4822 OCE 3014

List 2 - Restricted Electives CHM 4220CHM 4300 CHM 4307 CHM 4307 CHM 3610 CHM 3411CHM 4130
CHM 4230LCHM 4130L CHM 4370L CHM 4610L CHM 3411