

Undergraduate Major Map

Catalog Year 2023
College / School Arts, Sciences & Education
Major Chemistry - BS
Track / Concentration
Career Path Four Year Freshman

Fall Term 2023 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. *Course availability subject to change. Please see Academic Advisor.				Term Hours: 15 Cum GPA: 2
Course Group	Course Required	Course Description	Credit Hours	Course Notes
Common Prerequisites	CHM 1045	Gen Chemistry I	3	Also satisfies UCC Natural Science Group 1 course. (1) See endnotes
Common Prerequisites	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
Common Prerequisites	MAC 2311	Calculus I	4	Also satisfies UCC Mathematics Group 1 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

Spring Term 2024				Term Hours: 14 Cum GPA: 2
Course Group	Course Required	Course Description	Credit Hours	Course Notes
Common Prerequisites	CHM 1046	Gen Chemistry II	3	Prerequisites: CHM 1045 and CHM 1045L
Common Prerequisites	CHM 1046L	Gen Chem Lab II	1	
UCC Communication	ENC 1102	Writing and Rhetoric II	3	Satisfies UCC Communication course 2. (1) See endnotes
Common Prerequisites	MAC 2312	Calculus II	4	Also satisfies UCC Mathematics Group 2 course. (1) See endnotes. Prerequisite: MAC 2311
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 2024 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 Cum GPA: 2
Course Group	Course Required	Course Description	Credit Hours	Course Notes
Chemistry Core	CHM 3120	Intro Analyt Chem	3	Prerequisites: CHM 1046 and CHM 1046L
Chemistry Core	CHM 3120L	Intr Analyt Chm Lab	1	

Fall Term 2024 May use UCC Social Science course to satisfy a Global Learning requirement. (2) See endnotes				Term Hours: 13 Cum GPA: 2
Course Group	Course Required	Course Description	Credit Hours	Course Notes
Common Prerequisites	CHM 2210	Organic Chem I	4	Prerequisites: CHM 1046 and CHM 1046L
Common Prerequisites	CHM 2210L	Org Chem Lab I	1	
Common Prerequisites	PHY 2048	Physics W/Calculus I	4	Prerequisite/Corequisite: MAC 2311
Common Prerequisites	PHY 2048L	General Phys 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

Spring Term 2025 Students are required to select 2 Gordon Rule With Writing (GRW) courses from the UCC. Some courses in Humanities Group 1 may satisfy the GRW requirement.				Term Hours: 12 Cum GPA: 2
Course Group	Course Required	Course Description	Credit Hours	Course Notes
Common Prerequisites	CHM 2211	Organic Chem II	3	Prerequisites: CHM 1046 and CHM 1046L
Common Prerequisites	CHM 2211L	Organic Chem Lab II	1	
Common Prerequisites	PHY 2049	Physics W/Calc II	4	Also satisfies UCC Natural Science Group 2 course. (1) See endnotes. Prerequisite/Corequisite: MAC 2312
Common Prerequisites	PHY 2049L	General Phys Lab II	1	Also satisfies UCC Natural Science Group 2 course Lab. (1) See endnotes
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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Summer Term 2025 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 Students are required to select 2 Gordon Rule With Writing (GRW) courses from the UCC. All courses in Humanities Group 2 will satisfy one of the GRW requirements. May use electives to satisfy Global Learning (GL) or Gordon Rule with Writing (GRW) requirements. Please speak with your advisor.				Term Hours: 6 Cum GPA: 2
Course Group	Course Required	Course Description	Credit Hours	Course Notes
UCC Humanities - Group Two			3	May satisfy Gordon Rule with Writing (GRW) and Global Learning (GL) requirements. Please speak with your advisor
3000-4000 Level Electives			3	Global Learning Discipline Specific course recommended

Fall Term 2025 If College Foreign Language requirement has been satisfied, 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
Chemistry Core	CHM 3410	Phys Chem I	4	Prerequisites: CHM 3120/L, MAC 2312, PHY 2049/L
Chemistry Core	CHM 3410L	Phys Chm Lab I	1	
General Electives			3	
Chemistry Math Continued			4	Choose from COP2270, MAC2313, or MAP2302

Spring Term 2026 If College Foreign Language requirement has been satisfied, a General Elective may be taken instead to satisfy the Elective Outside the Major requirement (if needed).				Term Hours: 13 Cum GPA: 2
Course Group	Course Required	Course Description	Credit Hours	Course Notes
Chemistry Core	CHM 3411	Phys Chem II	4	Prerequisites: CHM 3410 and CHM 3410L
Chemistry Core	CHM 3411L	Phys Chem Lab II	2	
Chemistry Core	CHM 4130	Instrument Analysis	3	Prerequisites: CHM 3400/L or CHM 3410/L, CHM 3120/L, PHY 2049 or 2054, PHY 2049L
Chemistry Core	CHM 4130L	Instr Analysis Lab	1	
Chemistry Core	CHM 3610	Fund Inorganic Chem	3	Pre-Requisites: CHM2211 and CHM2211L

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Summer Term 2026 Use this semester to catch up on coursework and/or satisfy the 9 credits summer requirement (if needed). (3) See endnotes				Term Hours: 3 Cum GPA: 2
Course Group	Course Required	Course Description	Credit Hours	Course Notes
Chemistry Research	CHM 4910L	Under Res Chem	3	Research completed alongside a Faculty Advisor.

Fall Term 2026 Apply for Spring Graduation College 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. 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
Chemistry Core	CHM 4220	Adv Org Chem	3	Prerequisites: CHM 2211 and CHM 2211L; Fall Only Availability.
Chemistry Core			1	Required Course: CHM 3610 Lab
3000-4000 Level Electives			3	
Chemistry Lab			1	Take CHM 4230L if not planning to take CHM 4304L along with CHM 4304 the following semester
General Electives			3	
General Electives			3	

Spring Term 2027 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.				Term Hours: 14 Cum GPA: 2
Course Group	Course Required	Course Description	Credit Hours	Course Notes
General Electives			1	
General Electives			3	
Lecture Elective			3	4000 level Chemistry Lecture (Refer to Panther Degree Audit for list of class options)
Chemistry Core	CHM 4304	Biol Chemistry I	3	Prerequisites: CHM 2211 and CHM 2211L. Take CHM 4304L if CHM 4230L was not taken along with CHM 4220 in the previous semester
3000-4000 Level Electives			3	
Senior Seminar	CHM 4930	Senior Seminar	1	Can only be completed in final semester of the program with advisor permission

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<p>Summer Term 2027 Use this semester to catch up on coursework and/or satisfy the 9 credits summer requirement (if needed). (3) See endnotes</p>	<p>Cum GPA: 2</p>
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General Requirements

*Course availability subject to change. Please see Academic Advisor.

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.

(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. College Foreign Language Requirement: Students must demonstrate competency in a foreign language or in American Sign Language at the level of the second semester of a college language sequence. You may be able to satisfy this requirement with AP, CLEP Exam, or other credit. Contact your advisor.

(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

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lower is not acceptable.

1. Choose one of the following Chemistry Math courses to meet requirement: COP 2270, MAC 2313, or MAP 2302
2. Chemistry core consists of 34 units. Either CHM 4230L or CHM 4304L must be completed, but not both.
3. Complete 3 additional units of a 4000 level Chemistry course.
4. Students are required to take a nationally-normed chemistry examination in their last semester before graduation.

*Students who wish to graduate in the customary four years should make sure they are ready to take Physical Chemistry I at the beginning of the third year of study

**Students who plan to pursue a career in research should plan to start their independent study project no later than the beginning of the third year and are encouraged to begin sooner.

Pre-Medical, Dentistry, Veterinary, Optometry, Pharmacy Curricula Students who have satisfied the requirements for either the BA or BS degree in chemistry will also have satisfied the course requirements for admission to professional schools in the above areas. The BA-Chemistry degree (Biochemistry Concentration) includes additional course work relevant to the career objectives of the student. Interested students should consult the PreHealth Advising at 305-348-0515