

## Undergraduate Major Map

Catalog Year 2021  
College / School Arts, Sciences & Education  
Major Chemistry - BA  
Track / Concentration Chemical Education Major  
Career Path Two Year Transfer

<p><b>Fall Term 2021</b> Students must pass all sections of the FTCE: General Knowledge (GK) Exam by the end of the semester that they complete 72 credits.</p> <p>After passing this exam, they must apply for Program Admission with their assigned advisor located in ZEB 210.</p> <p>In addition, students should complete Milestone #1 electronically, using their Taskstream account: <a href="https://w.taskstream.com/ts/chang28/ProgramMilestones">https://w.taskstream.com/ts/chang28/ProgramMilestones</a> .</p> <p>They must also maintain an average cumulative GPA of a 2.5, with a minimum of a 2.0 in all Education coursework.</p>				<p><b>Term GPA:</b> 2 <b>Term Hours:</b> 16 <b>Cum GPA:</b> 2.5</p>
Course Group	Course Required	Course Description	Credit Hours	Course Notes
Intro to Analytical Chemistry	CHM 3120	Intro Analyt Chem	3	Prerequisite: CHM 1046 & CHM 1046L
Intro to Analytical Chemistry	CHM 3120L	Intr Analyt Chm Lab	1	Prerequisite: CHM 1046 & CHM 1046L
Education Requirements	SMT 3100	Know and Learn Math and Sci	3	Prerequisite/Co-requisite: SMT 2044. Refer to course syllabus for assigned field hours, if any.
Cognate Area Courses	BSC 2011	General Biology II	3	
Cognate Area Courses	BSC 2011L	Gen Biology Lab II	1	
Additional Lower Division Cour	SMT 2044	STEP 1&2 Lesson Math and Sci	2	Prerequisite: Junior/Senior standing. Fingerprint clearance required to complete assigned field hours.
General Electives			3	See Assigned Advisor for 3000/4000 Level Course

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<b>Spring Term 2022</b> Students should begin preparing for the FTCE: Professional Education Test and/or Subject Area Exam - Chemistry 6-12 as planned with their assigned advisor.  If SCE 4194 course is taken in this semester, it will satisfy the Global Learning (GL) Discipline Specific requirement.  They must also maintain an average cumulative GPA of a 2.5, with a minimum of a 2.0 in all Education coursework.				<b>Term GPA:</b> 2 <b>Term Hours:</b> 14 <b>Cum GPA:</b> 2.5
Course Group	Course Required	Course Description	Credit Hours	Course Notes
Education Requirements	SMT 4301	Class Interact Math and Sci	3	Prerequisite: SMT 3100. Fingerprint clearance required to complete assigned field hours.
Restricted Electives - Labs			1	See Assigned Advisor
Education Requirements	SCE 4194	Pers in Sci and Math Ed	3	Fingerprint clearance required to complete assigned field hours
Fundamentals of Physical Chemistry	CHM 3400	Fund.Phys.Chm	3	Prerequisite: MAC 2312, PHY 2048/2053, PHY 2049/2054, PHY 2048L, PHY 2049L, CHM 3120, CHM 3120L
Fundamentals of Physical Chemistry	CHM 3400L	Fund.Phys.Chm. Lab	1	Prerequisite: MAC 2312, PHY 2048/2053, PHY 2049/2054, PHY 2048L, PHY 2049L, CHM 3120, CHM 3120L
Restricted Electives - Lecture			3	See Assigned Advisor

<b>Summer Term 2022</b> Summer enrollment is encouraged, but not applicable for all students. This may be determined after meeting with their assigned advisor.  If TSL 4324 course is taken in this semester, it will satisfy the Global Learning (GL) Discipline Specific requirement.  Students should apply for Student Teaching through the Office of Clinical Experiences by June 1st, or when specified by the Clinical Experience Office and/or their assigned advisor.  In addition, they should have passed the FTCE: Professional Education Test and/or Subject Area Exam Chemistry 6-12 as planned with their assigned advisor.  Students must continue to maintain an average cumulative GPA of a 2.5, with a minimum of a 2.0 in all Education coursework.				<b>Term GPA:</b> 2 <b>Term Hours:</b> 9 <b>Cum GPA:</b> 2.5
Course Group	Course Required	Course Description	Credit Hours	Course Notes
Education Requirements	RED 4325	Subj Area Reading	3	Fingerprint clearance required to complete assigned field hours.
Education Requirements	TSL 4324	ESOL Content Areas	3	Prerequisite: Program Admission. Fingerprint clearance required to complete assigned field hours.
Restricted Electives - Lecture			3	See Assigned Advisor

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<p><b>Fall Term 2022</b> Students MUST have ALL required coursework completed and ALL FTCE Education Exams passed prior to placement in Student Teaching.</p> <p>Students must continue to maintain an average cumulative GPA of a 2.5, with a minimum of a C in all Education coursework.</p>				<p><b>Term GPA:</b> 2 <b>Term Hours:</b> 15 <b>Cum GPA:</b> 2.5</p>
Course Group	Course Required	Course Description	Credit Hours	Course Notes
General Electives			3	See Assigned Advisor for 3000/4000 Level Course
Senior Seminar	CHM 4930	Senior Seminar	1	Prerequisite: CHM 3400 or CHM 3411
Education Requirements	SMT 4664	Prob Based Instr Math-Sci	3	Prerequisite: SMT 3100 and SMT 4301. Fingerprint clearance required to complete assigned field hours.
Biological Chemistry I	CHM 4304	Biol Chemistry I	3	Prerequisite: CHM 2211, CHM 3120, BSC 2011
Biological Chemistry I	CHM 4304L	Biol Chem I Lab	1	Prerequisite: CHM 2211, CHM 3120, BSC 2011
Education Requirements	CHM 3910	Chemistry Research Method	3	Prerequisite: SMT 2044. Refer to course syllabus or course catalog for assigned field hours, if any.
General Electives			1	See Assigned Advisor for 3000/4000 Level Course

<p><b>Spring Term 2023</b> Student teaching is a full-time teaching experience and requires commitment during school hours along with preparation and grading time.</p> <p>Students should apply for Graduation by the first week of classes, or as communicated by their advisor.</p> <p>Students must continue to maintain an average cumulative GPA of a 2.5, with a minimum of a C in all Education coursework.</p>				<p><b>Term GPA:</b> 2 <b>Term Hours:</b> 6 <b>Cum GPA:</b> 2.5</p>
Course Group	Course Required	Course Description	Credit Hours	Course Notes
Education Requirements	SCE 4944	Student Teaching	6	

### General Requirements

**Prerequisite Courses:**

CHM 1045, CHM 1045L ---- CHMX045/X045L or CHMX045C or CHMX040 and CHMX041

CHM 1046, CHM 1046L ---- CHMX046/X046L or CHMX046C

CHM 2210, CHM 2210L ---- CHMX210/X210L or CHMX210C

CHM 2211, CHM 2211L ---- CHMX211/X211L or CHMX211C

PHY 2048, PHY 2048L ---- PHYX048/X048L or PHYX053/X053L

PHY 2049, PHY 2049L ---- PHYX049/X049L or PHYX054/X054L

MAC 2311 ---- MACX311 or MACX233 or MACX253 or MACX081 or MACX241

MAC 2312 ---- MACX312 or MACX282

BSC 2011, BSC 2010L

\*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.

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### GENERAL UNIVERSITY REQUIREMENTS

Transfer students are assumed to have completed an Associates of Arts from a Florida Public Institution or completed 60 credits and the University Core Curriculum Requirements.

In addition, the following courses are required of incoming transfer students:

Global Learning Requirement for Transfers: Transfers entering FIU Fall 2011 or later are required to take two Global Learning courses.

Those who meet University Core Curriculum Requirements prior to entering FIU

-Two Global Learning Discipline Specific Courses (One of the two may be a Global Learning Foundation Course chosen in consultation with your advisor)

Those who do not meet University Core Curriculum Requirements prior to entering FIU

-One Global Learning Foundation Course (from the University Core Curriculum)

-One Global Learning Discipline Specific Course

Transfer courses may not be used to meet the FIU Global Learning Requirement. For a list of Global learning courses: <http://goglobal.fiu.edu>

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 specific requirements

1. Chemistry restricted electives: complete 2 lecture courses; 1 of them with the associated lab with a minimum grade of "C". Also, must take BSC 2011 & BSC 2011L
2. Students are required to take a nationally-normed chemistry examination in their last semester before graduation. Contact chemistry department for more information.

### Admission Requirement:

1. GPA 2.5 minimum
2. Successful completion of 60 credit hours of lower-division coursework or an AA degree from an accredited institution
3. Pass all four sections of the General Knowledge Test (Reading Comprehension, English Language Skills, Mathematics and Essay).
4. Major Pre-requisite (listed above) must be taken and passed with a minimum grade of C

### Graduation Requirement:

1. Have an overall GPA of 2.5 or higher
  2. Successfully demonstrate all the Florida Educator Accomplish Practices at the pre-professional level. This is done throughout your coursework in the College of Education.
  3. Pass the FTCE General Knowledge, Professional Education and Subject Area exams prior to graduation.
- Note: At FIU, the Professional Education and Subject Area exams must be passed prior to Student Teaching.

### Testing Requirement:

1. FTCE General Knowledge Test (English Language, Reading, Essay, Math)

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2. FTCE Professional Education Exam
3. FTCE Subject Area Exam in Chemistry 6-12

\*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 fourth year and are encouraged to begin sooner.