FIU Arts, Sciences & Education

Bachelor of Science in Chemistry

University Requirements:

- □ University Core Curriculum (UCC)*
- Gordon Rule with Writing (GRW) (Two courses; 6 credits total)
- □ Foreign Language requirement (FLENT/FLEX) *
- □ Summer Enrollment (9 credits)
- □ Global Learning (GL) requirement (For class options: goglobal.fiu.edu/courses) *
- □ Civics Literacy requirement*
- □ Minimum of a 2.0 GPA
- □ 120 credit hours required for graduation

College of Arts, Sciences, and Education Requirements:

□ 45 credits of Upper Division hours (3000-4000 level)

Chemistry BS Lower Division Prerequisite Coursework: Complete all of the following with a grade of "C" or better:

- Course Availability: This is when courses are typically offered and is subject to change:
 - F (Fall), S (Spring), SS (Summer)

| General Chemistry | | Credits |
|--------------------------------|--|---------|
| CHM 1045 | General Chemistry I- Prerequisites: MAC1105 or MAC1114 or MAC1140 or MAC1147 or any calculus course; or CHM1025 or adequate placement test score (465 MPS, 50 Aleks). Prerequisite or Corequisite: CHM1045L (F,S,SS) | 3 |
| CHM 1045L | General Chemistry Lab I- Prerequisite or Corequisite: CHM1045) (F,S,SS) | 1 |
| CHM 1046 | General Chemistry II- Prerequisites: CHM1045, CHM1045L. (F,S,SS) | 3 |
| CHM 1046L | General Chemistry Lab II- Prerequisite or Corequisite: CHM1046. (F,S,SS) | 1 |
| Organic Chemistry | | |
| CHM 2210 | Organic Chemistry I- Prerequisites: CHM1046, CHM1046L. Prerequisite or Corequisite: CHM2210L. (F,S,SS) | 4 |
| CHM 2210L | Organic Chemistry Lab I- Prerequisite or Corequisite: CHM2210 (F,S,SS) | 1 |
| CHM 2211 | Organic Chemistry II- Prerequisites: CHM2210, CHM2210L. Prerequisite or Corequisite: CHM2211L. (F,S,SS) | 3 |
| CHM 2211L | Organic Chemistry Lab II- Prerequisite or Corequisite: CHM2211 (F,S,SS) | 1 |
| Chemistry Math | | |
| MAC 2311 | Calculus I- Prerequisites: MAC1147 or MAC1140 and MAC1114 or appropriate score on placement exam (505 MPS, 75 Aleks) (F,S,SS) | 4 |
| MAC 2312 | Calculus II- Prerequisite: MAC2311 (F,S,SS) | 4 |
| Chemistry Math Continued | Choose 1 of the following: | |
| COP 2270 | C For Engineers (F, S) | 3 |
| MAC 2313 | Multivariable Calculus- Prerequisite: MAC2312 (F,S,SS) | 4 |
| MAP 2302 | Differential Equations- Prerequisite: MAC2312 (F,S,SS) | 3 |

| Physics | | |
|-----------|---|---|
| PHY 2048 | Physics W/Calculus I- Prerequisite or Corequisite: MAC2311 or equivalent (F,S,SS) | 4 |
| PHY 2048L | General Physics Lab I- Prerequisite or Corequisite: PHY2048 (F,S,SS) | 1 |
| PHY 2049 | Physics W/Calculus II- Prerequisite: PHY2048; Prerequisite or Corequisite: MAC2312 (F,S,SS) | 4 |
| PHY 2049L | General Physics Lab II- Prerequisite or Corequisite: PHY2049 (F,S,SS) | 1 |

Chemistry BS Upper Division Core: Complete all of the following with a grade of "C" or better:

| Course | Description | Credits |
|-----------|---|---------|
| CHM 3120 | Intro Analytical Chemistry- Pre-Requisites: CHM1046 and CHM1046L (F,S,SS) | 3 |
| CHM 3120L | Intro Analytical Chemistry Lab- Prerequisite or Corequisite: CHM3120 (F,S,SS) | 1 |
| CHM 3410 | Physical Chemistry I- Pre-Requisites: CHM3120, CHM3120L, MAC2311, MAC2312, PHY2049, PHY2049L. Co-requisite: CHM 3410L (F,S) | 4 |
| CHM 3410L | Physical Chemistry I Lab- Prerequisite or corequisite: CHM3410 (F,S) | 1 |
| CHM 3411 | Physical Chemistry II- Prerequisite: CHM3410, CHM3410L (F,S) | 4 |
| CHM 3411L | Physical Chemistry II Lab- Prerequisite or Corequisite: CHM3411 (F,S) | 2 |
| CHM 4130 | Instrumental Analysis- Pre-Requisites: CHM3120, CHM3120L, CHM2211, CHM2211L, CHM3410 or CHM3400, PHY2048, PHY2048L, PHY2049, PHY2049L or PHY2053, PHY2048L, PHY2054, PHY2049L (F,S) | 3 |
| CHM 4130L | Instrumental Analysis Lab- Prerequisite or corequisite: CHM4130 (F,S) | 1 |
| CHM 4220 | Advanced Organic Chemistry- Prerequisites: CHM2211 and CHM2211L. (F) | 3 |
| CHM 4304 | Biological Chemistry I- Prerequisites: CHM 2211 and CHM 2211L (F,S,SS) | 3 |
| CHM 3610 | Fundamentals of Inorganic Chemistry- Prerequisites: CHM2211 and CHM2211L (S) | 3 |
| CHM 3610L | Fundamentals of Inorganic Chemistry Lab- Prerequisite: CHM 3610 (F,SS) | 1 |

Upper Division Chemistry Lab: Complete 1 of these labs with a grade of "C" or better: (1 credit)

| Course | Description | Credits |
|----------|---|---------|
| CHM4230L | Structure Determination Lab- Prerequisite: CHM2211, CHM2211L. (F,S) | 1 |
| CHM4304L | Biological Chemistry I Lab- Prerequisite or Corequisite: CHM4304 (F,S,SS) | 1 |

Senior Chemistry Lecture Elective

| Course | Description | Credits |
|----------|---|---------|
| CHM or | 4000 level Chemistry Lecture (Refer to Panther Degree Audit for list of class | 2 |
| CHS 4XXX | options.) | 5 |

Upper Division Chemistry Research Requirement

| Course | Description | Credits |
|-----------|--|---------|
| CHM 4910L | Undergrad Research- This requirement is completed over two-three semesters in collaboration with a Chemistry Faculty member. Please contact a chemistry faculty member for more information as early as your sophomore year of college. Students who do not enroll in this course by 90 credits will have an advising hold placed on their account. (F,S,SS) | 3 |

Chemistry Senior Seminar

| Course | Description | Credits |
|----------|--|---------|
| CHM 4930 | Senior Seminar- Prerequisite: Senior standing in last term of enrollment . Advisor permission required. Please message advisor or schedule an appointment requesting permission. (F,S,SS) | 1 |

Chemistry Graduation Exam

| Description |
|---|
| Students are required to take a nationally normed chemistry examination in their last semester before |
| graduation. Please contact the Chemistry Department for more information: 305.348.2606. CP 304 |

Interested in Teaching? Students interested in Secondary Teacher Certification should contact the College of Arts, Sciences & Education Center for Advising & Student Success at (305) 348-2978

Pre-Health Interest: Interested students should consult a Pre-Health Advisor (DM 337; 305-348-0515; preprofc@fiu.edu) for arranging a curriculum to enhance their potential to gain admission to these professional schools.

University Core Curriculum

Students transferring with an AA degree or General Education requirements met from a Florida public college or university, or a bachelor's degree from a regionally accredited institution, automatically satisfy the UCC. All others require course-by-course evaluations.

FLENT/FLEX: State-mandated foreign language requirement

Students Satisfy FLENT/FLEX as follows:

- Two terms of the same language at the introductory level (levels 1 & 2) OR One term of an intermediate or advanced level course
- International evaluation or high school transcript noting studies were completed in a country where English is not an official language
- Passing scores on CLEP exam (Spanish, French, German)
- Passing scores on BYU FLATS (nearly 60 languages offered)
- Two years of the same foreign language in high school
- A previously earned bachelor's degree from a regionally accredited institution
- An AA degree earned at a Florida public college or university prior to 1989
- Passing TOEFL or IELTS scores required for FIU admission

Summer Enrollment

Students transferring to FIU with **less than 60 credits** are required to earn at least 9 credits during one or more summer terms at FIU or any other university in the State University System of Florida. Courses may be completed in person or online.

Civics Literacy Requirement

The Civic Literacy requirement is a statewide mandate that applies to undergraduate students *initially* entering a Florida State University System (SUS) and/or Florida College System (FCS) institution in the 2018-19 academic year and thereafter. Please see your academic advisor to learn about your options to complete this requirement.

Enrollment Status

Full Time= 12 credit hours or more

Global Learning

The Global Learning for Global Citizenship (GL) requirement is unique to FIU, and therefore, students may not use transfer credits to satisfy it. GL courses, activities, and programs enhance students' understanding of global issues and engagement as global citizens.

Freshmen starting Summer B 2010 or later must take:

- 1 Global Learning Foundations (University Core Curriculum) course
- 1 Global Learning Discipline-Specific course

Transfers and Re-admitted students starting Fall 2011 or later:

- Those who enter FIU with 60 or more credits and/or who meet UCC requirements prior to entering FIU (e.g. those with an AA from a Florida public institution) must take:
- 2 Global Learning Courses, at least one of which must be a Discipline-Specific course.

Those who enter FIU with fewer than 60 credits and do not meet UCC requirements prior to entering FIU must take:

- 1 Global Learning Foundations (University Core Curriculum) course
- 1 Global Learning Discipline-Specific course

Transfer Students

FIU accepts transfer credits from regionally accredited institutions and nationally accredited institutions that participate in Florida's Statewide Course Numbering System (SCNS).

60 = Maximum number of lower-division credits applied toward the bachelor's degree.

30 = Maximum number of upper-division credits applied toward the bachelor's degree.

Academic Advising

You should see your advisor at least once a semester. To make an appointment with your advisor, log in to your MyFIU to use the Panther Success Network.