CHEMISTRY (B.A.)

The Bachelor of Arts (B.A.) in Chemistry provides students with the opportunity to study matter, the physical material of the universe, and apply chemistry to enhance the quality of life. The program provides opportunities for undergraduate research and hands-on activities. Graduates will be prepared for professional study in medical, dental, veterinary, or pharmacy schools; graduate studies and employment as laboratory technicians in industry, academic or governmental laboratories.

Program Progression and Additional Graduation Requirements

For timely degree completion, students must complete all program milestones. The following actions occur when milestones are missed: first occurrence—warning and advising hold; second occurrence—advising hold and counseling regarding progression requirements; and third occurrence—counseling and change to a major outside of the Department of Chemistry and Physics or Department of Biology that is more appropriate to student goals and academic performance. Appeals are handled through the relevant department. The decision of the appeal committee is final. Program milestones include the following:

- CHM 1045 General Chemistry I/CHM 1045L General Chemistry I Laboratory (or CHM 1045C) minimum grade of C completed one calendar year from admission as first time in college (FTIC) or 30 credits earned, whichever is earlier.
- CHM 1046 General Chemistry II/CHM 1046L General Chemistry II Lab (or CHM 1046C) minimum grade of C completed by end of fifth semester (including summers) from admission as FTIC or 60 credits earned, whichever is earlier.
- CHM 2210 Organic Chemistry I/CHM 2210L Organic Chemistry I Laboratory (or CHM 2210C) minimum grade of C completed by end of seventh semester (including summers) from admission as FTIC or 75 credits earned, whichever is earlier.
- CHM 2211 Organic Chemistry II/CHM 2211L Organic Chemistry II Laborator (or CHM 2211C) minimum grade of C completed by end of eighth semester (including summers) from admission as FTIC or 90 credits earned, whichever is earlier.
- CHM 3120 Analytical Chemistry/CHM 3120L Analytical Chemistry Lab minimum grade of C completed by end of eighth semester (including summers) from admission as FTIC or 90 credits earned, whichever is earlier.

Transfer students may declare the major after they have completed CHM 1045 General Chemistry I/CHM 1045L General Chemistry I Laboratory, CHM 1046 General Chemistry II/CHM 1046L General Chemistry II Lab, and CHM 2210 Organic Chemistry I/CHM 2210L Organic Chemistry I Laboratory with grades of C or better in each course. CHM 2211 Organic Chemistry II/CHM 2211L Organic Chemistry II Laborator and CHM 3120 Analytical Chemistry/CHM 3120L Analytical Chemistry Lab must be completed with a grade of C or better within three semesters (including summer) of declaring the major.

In addition to the program requirements, students must:

- Complete a minimum of 120 credits.
- Complete a minimum of 48 of the 120 credits at the upper division (3000 - 4999 level).
- Earn a cumulative GPA of 2.0 for all coursework attempted at FGCU.
- Satisfy the College-Level Skills and foreign language entrance requirements.
- Satisfy the Service-Learning requirement.
- Satisfy the Civic Literacy requirement.
- Satisfy the residency requirement: 30 of the last 60 credits must be completed at FGCU.
- Complete the summer course enrollment requirement.
- Submit an Application for Graduation by the deadline listed in the FGCU Academic Calendar.

Program Requirements

Code	Title	Credits
FGCU General Education Program (https://www.fgcu.edu/academics/undergraduatestudies/generaleducation/)		
To prevent or minimize excess hours, select general education courses that satisfy common prerequisite requirements for your intended major.		
Common Prerequisites		
For this major, common prerequisite courses with an asterisk (*) require prior knowledge and skills demonstrated through degree acceleration programs (e.g., the College Board's Advanced Placement Program [AP], International Baccalaureate Program [IB], College-Level Examination Program [CLEP], Advanced International Certificate of Education Program [AICE]); dual enrollment; placement exam; or college coursework.		
A minimum grade of C is required in each course		
CHM 1045 & 1045L	General Chemistry I and General Chemistry I Laboratory (cceptable Substitutes: (CHMX040 and CHMX041) or CHM045C or (CHMX045 and CHMX045L)) [*, 1]	4
CHM 1046 & 1046L	General Chemistry II and General Chemistry II Lab (Acceptable Substitutes: (CHMX046 and CHMX046L) or CHMX046C)	4
MAC 2311	Calculus I (Acceptable Substitute: MACX311 or MACX281) [*, 2]	4
MAC 2312	Calculus II (Acceptable Substitute: MACX312 or MACX282)	4
CHM 2210 & 2210L	Organic Chemistry I and Organic Chemistry I Laboratory (Acceptable Substitutes: (CHMX210 and CHMX210L) or (CHMX210C))	4
CHM 2211 & 2211L	Organic Chemistry II and Organic Chemistry II Laborator (Acceptable Substitutes: (CHMX211 and CHMX211L) or (CHMX211C))	4
PHY 2048 & 2048L	General Physics I and General Physics I Laboratory (Acceptable Substitutes: PHYX048C or (PHYX048 and PHYX048L) or PHY X053C or (PHYX053 and PHYX053L))	4
or PHY 2053	College Physics I	
or PHY 2053L	College Physics I Laboratory	

PHY 2049 & 2049L	General Physics II and General Physics II Laboratory (Acceptable Substitutes: PHYX049C or (PHYX049 and PHYX049L)or PHY X054C or (PHYX054 and PHYX054))	4
or PHY 2054	College Physics II	
or PHY 2054L	College Physics II Laboratory	
Required Courses in the Major		**(25 credits)**
A minimum grade of C is required in each course		
BCH 3023C	Biochemistry	3
CHM 3120	Analytical Chemistry	3
CHM 3120L	Analytical Chemistry Lab	1
CHM 3410	Physical Chemistry I	3
CHM 3410L	Physical Chemistry I Lab	1
CHM 3610	Inorganic Chemistry	3
CHM 3610L	Inorganic Chemistry Laboratory	1
CHM 4130	Instrumental Analysis	3
CHM 4130L	Instrumental Analysis Lab	1
CHM 4230C	Practical NMR Spectroscopy	3
CHM 4932	Chemistry Senior Seminar (capstone)	3
Restricted Electives in the Major		**(15 credits)**
A minimum grade of C is required in each course		
BCH 3025C	Analytical Biochemistry	3
BCH 4033	Advanced Biochemistry I	3
BCH 4033L	Advanced Biochemistry I Lab	1
BCH 4034	Advanced Biochemistry II	3
BCH 4034L	Advanced Biochemistry II Lab	1
CHM 3411	Physical Chemistry II	3
CHM 3411L	Physical Chemistry II Lab	1
CHM 3940	Internship in Chemistry [3]	0-4
CHM 4080C	Adv Environmental Chemistry	3
CHM 4174C	Lasers in Physical Sciences	3
CHM 4220C	Advanced Organic Chemistry	3
CHM 4254C	Medicinal Organic Synthesis	3
CHM 4300	Bio-Organic Chemistry	3
CHM 4431	Statistical Thermodynamics	3
CHM 4512	Computational Modeling	3
CHM 4671	Bioinorganic Chemistry	3
CHM 4714C	Materials Chemistry	3
CHM 4905C	Dir Ind Study/Res in Chem [3]	1-4
CHM 4910C	Senior Project in Chemistry [3]	2
CHM 4912C	Senior Thesis/Pres. Chemistry [3]	2
CHM 4930	Special Topics in Chemistry	2-4
CHS 4533C	Forensic Biochemistry	3
CHS 4544C	Forensic Chemistry	3
Sustainability Course Graduation Requirement		**(3 credits)**
Select at least 3 credits in sustainability coursework (SCGR Attribute)		
Additional Electives		
As needed to reach total credits required for the degree		

1 Prerequisites of MAT 1033 Intermediate Algebra minimum grade of C then MAC 1105 College Algebra minimum grade of C; or relevant accelerated credit; or placement exam

2 Prerequisites of MAT 1033 Intermediate Algebra minimum grade of C then MAC 1105 College Algebra minimum grade of C then MAC 1147 Precalculus minimum grade of C; or relevant accelerated credit; or placement exam

3 A maximum number of 4 credits combined from these courses can be used to fulfill the elective requirement.

Total Credits Required: 120