

Florida Atlantic University - Chemistry Major (BA/BS) 2024-2025

Student must take 2 of the following courses, 1 must be from group A. The second course may be from group A or group B.

Communication	
<b>(Group A)</b>	
ENC 1101	College Writing I <b>(Required)</b>
<b>(Group B)</b>	
ENC 1102	College Writing II +
ENC 1930	University Honors Seminar in Writing + §
ENC 1939	Special Topic: College Writing +
HIS 2050	Writing History +
Humanities	
<b>(Group A)</b>	
ARH 2000	Art Appreciation
HUM 2020	Honors Introduction to Humanities §
LIT 2000	Honors Introduction to Literature §
MUL 2010	Music Appreciation
PHI 2010 & D	Introduction to Philosophy <b>(WAC) ++</b>
THE 2000	Theatre Appreciation
<b>(Group B)</b>	
ARC 2208	Culture & Architecture
DAN 2100	Appreciation of Dance
FIL 2000 & D	Film Appreciation
FIL 2000	Honors Film Appreciation §
JST 2452	Global Jewish Communities
LAS 2000	Intro to Caribbean & Latin American Studies
LIN 2607	Global Perspectives on Language
LIT 2010	Interpretation of Fiction <b>(WAC) ++</b>
LIT 2030	Interpretation of Poetry <b>(WAC) ++</b>
LIT 2040	Interpretation of Drama <b>(WAC) ++</b>
LIT 2070	Inter of Creative Nonfiction <b>(WAC) ++</b>
LIT 2100	Introduction to World Literature
LIT 2931	Special Topics in Lit <b>(WAC) ++</b>
MUH 2121	Music in Global Society
SPC 2608	Public Speaking
WOH 2012 & D	History of Civilization 1 <b>(WAC) ++</b>
WOH 2022	History of Civilization 2
Mathematics	
<b>(Group A)</b>	
MAC 1105	College Algebra <b>(BA major only)</b>
MAC 2311	Calculus with Analytical Geometry 1 (4 cr.) ***
<i>Or any mathematics course for which one of the above general education core course options in Mathematics is the direct prereq.</i>	
<b>(Group B)</b>	
MAC 1147	Precalculus Algebra & Trigonometry (4 cr.)
MAC 2210	Intro Calculus w/Applications (4 cr.) (Permit Only)
MAC 2233	Methods of Calculus <b>(BA major only)</b>
MAC 2312	Calculus with Analytic Geometry 2 (4 cr.) ***
<b>Please review page 2 for the major information</b>	

Natural Science	
<b>(Group A)</b>	
BSC 1010 & L	Biological Principles (4 cr. w/Lab) <b>(BS major)</b>
CHM 2045 & L	General Chemistry 1 (4 cr. w/Lab) ‡ <b>(BA/BS major)</b>
PHY 2048 & L	General Physics 1 (5 credits w/Lab) * <b>(BA/BS major)</b>
PHY 2053 & L	College Physics 1 (5 credits w/Lab) ** <b>(BA/BS major)</b>
<i>Or any course in the Nat Sci. for which one of the above general education core course options in Natural Science is the direct prerequisite.</i>	
<b>** NOTE: at least one science course must have a lab from Group A or B **</b>	
<b>(Group B)</b>	
BSC 1011 & L	Biodiversity (4 cr. w/Lab)
Social Sciences	
<b>(Group A)</b>	
AMH 2010 & D	United States History to 1877 ◊
AMH 2020 & D	United States History Since 1877 ◊
ANT 2000 & D	Introduction to Anthropology <b>(WAC)</b>
ECO 2013	Macroeconomic Principles
POS 2041	Government of the United States ◊
PSY 1012	Introduction to Psychology
<b>(Group B)</b>	
ANT 2410	Culture and Society
CCJ 2002	Law, Crime & the Criminal Justice System
DIG 2202	Digital Culture
ECO 2023	Microeconomic Principles
ECP 2002	Contemporary Economic Issues
EDF 2854	Educated Citizen in Global Context
EEX 2091	Disability and Society
EME 2620	Digital Literacy in a Globally Connected World
EVR 1110	Climate Change: The Human Dimensions
EVR 2017	Environment and Society
GEA 2000	World Geography
INR 2002	Introduction to World Politics
LIN 2001	Introduction to Language <b>(online)</b>
MAR 2142	Culture, Consumers, & the Global Mktplace
PAD 2081	Risk Resilience and Rising Seas
PAD 2258	Changing Env. of Soc., Bus., & Gov't
POT 2000	Global Political Theory
SOW 1005	Global Perspectives of Social Services
SYG 1000	Sociological Perspectives
SYG 2010	Social Problems
SYP 2450	Global Society
URP 2051	Designing the City
<b>Additional Enrichment (6 credits) - Choose 6 credits from Humanities, Social Science, or Natural Science</b>	
(1) _____	(2) _____

**FOREIGN LANGUAGE (4 - 8 credits, 1 or more courses in the same language) - REQUIRED FOR MAJOR**

Students with more than one year of a foreign language in high school should enroll in the second half of the beginners' foreign language class (ARA/FRE/GER/HBR/ITA/JPN/LAT/SPN 1121) or a higher-level course. Proficiency for a first-level course can be earned by successfully completing a second-level course. For questions related to this requirement, consult an academic advisor. CLEP exam credits meet this requirement: see the catalog.

**NOTE:** Native Speakers of a foreign language must consult the Languages, Linguistics, & Comparative Literature Department regarding this requirement.

**NOTE:** Honors Seminars SHALL BE ACCEPTED AS MEETING THE WAC/GRWREQUIREMENT. See the University Advising Services Office for details.

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<b>LEGEND</b>	+ ENC 1101 is a prerequisite
	++ Two Communication courses are required before taking this course.
	§ Reserved for Wilkes Honors College & University Honors Program students only.
	◊ Please visit FAU's website regarding the Civic Literacy Requirements. ( <a href="https://www.fau.edu/ugstudies/civic-literacy-requirement/">https://www.fau.edu/ugstudies/civic-literacy-requirement/</a> )
	‡ Co-requisite of MAC 1105 or a prerequisite of CHM 1025.
	* MAC 2311 is a prerequisite for this course.
	** MAC 2233 is a prerequisite for this course. If a lab is needed, then take General Physics 1 lab (PHY 2048L).
	*** Required math for BS majors
	# The following courses are not offered at FAU but will fulfill this requirement if transferred from another school.
	<b>WAC</b> Writing Across the Curriculum course – minimum grade of “C” required. Students must take four WAC courses

**NOTE:** See the catalog for specific requirements, course descriptions and additional information. The requirements for some General Education (Gen Ed) courses & other courses may be satisfied by passing the appropriate AP or CLEP exam. Check with your advisor and college.

The College of Science has the following requirements:

- 1 Any course work in the major field transferred from another institution must be approved by the major dept.;
- 2 The maximum amount of credit which may be earned through co-op is 10 credits; some departments allow some of these credits to substitute for major courses, check with the department for specifics.

**MAJOR COURSES, COLLEGE REQUIREMENTS and ELECTIVES**

**BACHELOR OF ARTS DEGREE (B.A.) IN CHEMISTRY**

The Bachelor of Arts is a liberal arts degree intended for students planning professional careers in chemistry-related professions; ex. health professions (medicine, dentistry, & pharmacy), environmental consulting, technical sales and secondary school teaching. In addition to the University and Charles E. Schmidt College of Science requirements, students seeking a Bachelor of Arts (B.A.) degree in Chemistry must complete the following program:

CHM 2045 & Lab	*General Chemistry 1 w/ Lab	4 cr
CHM 2046 & Lab	*General Chemistry 2 w/ Lab	4 cr
CHM 2210	*Organic Chemistry 1	3 cr
CHM 2211	*Organic Chemistry 2	3 cr
CHM 2211 Lab	*Organic Chemistry Lab	2 cr
MAC 1105	College Algebra	3 cr
MAC 2233	Methods of Calculus	3 cr
PHY 2053	College Physics 1	4 cr
PHY 2048 Lab	General Physics 1 Lab	1 cr
PHY 2054	College Physics 2	4 cr
PHY 2049 Lab	General Physics 2 Lab	1 cr

\*FAU lower-division Chemistry sequence requires a C or better to take the next course in the sequence

34 - 38	General Education courses & Foreign Language (w/out Science)
9	Science Core
34	Major Core
28	Upper Division Electives
<u>11 - 15</u>	<u>Free Electives</u>
<b>120 CREDITS</b>	<b>TOTAL</b>

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**BACHELOR OF SCIENCE (B.S.) WITH MAJOR IN CHEMISTRY: ACS Approved PROGRAM**

The ACS-approved B.S. program offers similar rigorous training in all aspects of chemistry as the basic track but includes some additional requirements corresponding with the certification guidelines of the Committee on Professional Training of the American Chemical Society (ACS). An ACS-certified degree can offer advantages in job placement and graduate school admission.

CHM 2045 & Lab	*General Chemistry 1 w/ Lab	4 cr
CHM 2046 & Lab	*General Chemistry 2 w/ Lab	4 cr
CHM 2210	*Organic Chemistry 1	3 cr
CHM 2211	*Organic Chemistry 2	3 cr
CHM 2211 Lab	*Organic Chemistry Lab	2 cr
MAC 2311	Calculus with Analytical Geometry 1	4 cr
MAC 2312	Calculus with Analytical Geometry 2	4 cr
PHY 2048	General Physics 1	4 cr
PHY 2048 Lab	General Physics 1 Lab	1 cr
PHY 2049	General Physics 2	4 cr
PHY 2049 Lab	General Physics 2 Lab	1 cr

\*FAU lower-division Chemistry sequence requires a C or better to take the next course in the sequence

MAC 2313	Calculus with Analytical Geometry 3	4 cr
<b>OR</b>		
MAP 2302	Differential Equations 1	3 cr

36 - 40	General Education courses & Foreign Language (w/out Science)
9	Science Core
55 - 56	Major Core
10	Upper Division Electives
<u>5 - 10</u>	<u>Free Electives</u>
<b>120 CREDITS</b>	<b>TOTAL</b>

**BACHELOR OF SCIENCE DEGREE WITH MAJOR IN CHEMISTRY: BIOCHEMISTRY PROGRAM (B.S.)**

The Biochemistry program is designed for students pursuing careers in biochemistry and related disciplines such as molecular biology, biophysics, and pharmacology. Additionally, premedical students who wish to pursue a research-oriented curriculum might be interested in it. In addition to the University and Charles E. Schmidt College of Science requirements, the B.S. in Chemistry (Biochemistry) degree program requires the following courses:

BSC 1010 & Lab	Biological Principles w/ Lab	4 cr
CHM 2045 & Lab	*General Chemistry 1 w/ Lab	4 cr
CHM 2046 & Lab	*General Chemistry 2 w/ Lab	4 cr
CHM 2210	*Organic Chemistry 1	3 cr
CHM 2211	*Organic Chemistry 2	3 cr
CHM 2211 Lab	*Organic Chemistry Lab	2 cr
MAC 2311	Calculus with Analytical Geometry 1	4 cr

\*FAU lower-division Chemistry sequence requires a C or better to take the next course in the sequence

PHY 2048	General Physics 1	4 cr
<b>OR</b>		
PHY 2053	College Physics 1	4 cr
PHY 2048 Lab	General Physics 1 Lab	1 cr

PHY 2049	General Physic 2	4 cr
<b>OR</b>		
PHY 2054	College Physics 2	4 cr
PHY 2049 Lab	General Physics 2 Lab	1 cr

**PREMEDICAL/PREPROFESSIONAL COURSES FOR CHEMISTRY MAJORS**

BSC 1011 & L	Biodiversity w/Lab (Required)	4 cr
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46	General Education courses & Foreign Language (w/out Science)
54 - 59	Major Core
9 - 14	Upper Division Electives
<u>6</u>	<u>Free Electives</u>
<b>120 CREDITS</b>	<b>TOTAL</b>