CHEMISTRY (BA)

Description

The B.A. in chemistry is designed for students who wish to pursue a degree in the physical sciences with a broad liberal arts background. Some students use this degree program to prepare for admission to pharmacy school or as the basis for studies in environmental law. Students interested in teaching chemistry at the high-school level may use this degree to prepare for alternate route teacher certification by following a specified curriculum with a minor in either biological science, mathematics, or physics.

To enroll in the B.A. in chemistry, students must have successfully completed CHEM 1050 General Chemistry I or meet the prerequisites for CHEM 1050 General Chemistry I.

Minimum Total Credit Hours: 120

Degree Requirements

The academic regulations for this degree program, as entered in the University of Mississippi Catalog, are in effect for the current or selected academic year and semester. The University of Mississippi reserves the right to 1) change or withdraw courses; 2) change rules for registration, instruction, and graduation; and 3) change other regulations affecting the student body at any time.

General Education

Code	Title	Hours
Select one of the following First Year Writing I courses:		3
WRIT 1000	Introduction to College Writing	
or WRIT 1010	First-Year Writing I	
Select one of the following First Year Writing II courses:		3
WRIT 1020	First-Year Writing II	
or LIBA 1020	First Year Seminar	
Select six hours of literature survey from the following:		6
ENGL 2220	Survey in Literary History	
ENGL 2221	Survey of World Literature to 1650	
ENGL 2222	Survey of World Literature since 1650	
ENGL 2223	Survey of American Lit to the Civil War	
ENGL 2224	Survey of American Lit since Civil War	
ENGL 2225	Survey of British Lit to 18th Century	
ENGL 2226	Survey of Brit Lit since Romantic Period	
Select at least six hours of one modern or ancient language at the 2000 level or above [1]		6
Select six hours in History (HIST) course work [2]		6
Select three hours of humanities courses from the following areas: [3]		3
African-American Studies		
Classical Civilization		
ENVS 1010	Humanities and the Environment	
ISOM 2010	Introduction to Gender Studies	
ISOM 2020	Introduction to Queer Studies	
ISOM 3100	Topics in Gender and Culture	
ISOM 3110	Women, Gender & the Environment	
ISOM 3130	Theories in Gender	
ISOM 3140	Men, Women, and Greek Life	
ISOM 3150	Gender and Sexuality in Cinema	
ISOM 3153	Gender and Sexuality in the Media	
ISOM 4120	Advanced Queer Studies	
Philosophy		
Religion		
Southern Studies (any 1000 level only)		
RHET 2010	Introduction to Rhetoric	
LIBA 2020	Interdisciplinary Humanities	
LIBA 3050	Humanities and the Experience of War	
LIBA 3120	Advanced Interdisciplinary Humanities	
Select three hours of Fine Arts courses from the following: [2]		3
any Art History (ARTH) course		
DANC 2000	Dance Appreciation	
MUSC 1010	Introduction to Music Literature	
MUSC 1020	Fundamentals of Music Theory	
MUSC 1030	Introduction to Music	
MUSC 1040	Introduction to World Music Cultures	
MUSC 1050	Music Theory and Analysis I	
THEA 2010	Appreciation of the Theatre	
THEA 2020	Introduction to Cinema	
LIBA 1300	Introduction to the Fine Arts	
LIBA 2040	Interdisciplinary Arts	
LIBA 3140	Advanced Interdisciplinary Arts	
Select three hours of Math at the 1000 level or above [4]		3
Select six hours of Social Science from the following areas:		6
Anthropology		
Economics		
Political Science		
Psychology		
Sociology		
LIBA 2030	Interdisciplinary Social Sciences	
LIBA 3130	Advanced Interdisc Social Science	
3 sciences courses, of which 2 must have labs [5]		9-11
Astronomy OR Physics (must be 2 courses in Astronomy or 2 courses in Physics)		
Biology		
Chemistry		
Geology		
LIBA 1500	Integrated Science I	
LIBA 1510	Integrated Science II	
LIBA 2050	Interdisciplinary Sciences	
LIBA 2051	Interdisciplinary Lab Sciences	
LIBA 3150	Advanced Interdisciplinary Sciences	
LIBA 3151	Advanced Interdisciplinary Lab Sciences	
Total Hours		**48-50**

[1] Modern Languages: Arabic, Chinese, French, German, Italian, Japanese, Korean, Portuguese, Russian, Spanish, & Swahili.
Classics: Ancient Greek and Latin.
Communication Sciences & Disorders: American Sign Language
Philosophy and Religion: Hebrew

[2] Freshmen may not register for 3000 level courses.

[3] In addition, gender studies courses that are cross-listed with African American studies, classical civilization, English, modern languages, philosophy, or religion curses will satisfy this requirement.

[4] Except for MATH 2451 Mathematics for Elementary Teachers I and MATH 2452 Mathematics for Elementary Teachers II.

[5] Courses may be chosen from astronomy, biology, chemistry, geology, LIBA 2050 Interdisciplinary Sciences, LIBA 2051 Interdisciplinary Lab Sciences, LIBA 1500 Integrated Science I, LIBA 1510 Integrated Science II, LIBA 3150 Advanced Interdisciplinary Sciences, LIBA 3151 Advanced Interdisciplinary Lab Sciences and physics. Two semesters of coursework in one subject and one semester in a subject from another department are required. Each course must be a minimum of 3 credit hours. At least two of the courses taken must include laboratories. For some classes, the required laboratory will be an additional 1-hour course. For example, a student might take two 3-hour lecture courses in chemistry along with the two associated 1-hour laboratory courses, and one 3-hour course in biology without laboratory. As a second example, a student might take two 4-hour lecture/laboratory courses in geology and one 3-hour course in astronomy. As a third example, a student might take two chemistry courses, one with lab and one without, and a geology course with lab. Note that a student taking the required 6 hours of one subject (astronomy or physics) from the Department of Physics and Astronomy must take the remaining 3 hours from another department. ASTR 1110 Descriptive Astronomy does not include laboratory work; ASTR 1212 Intro Astronomy of the Solar System and ASTR 1312 Intro Astronomy of Stars and Galaxies include laboratory work and satisfy the requirements for lab-based science credits. A student may not receive credit for taking ASTR 1110 Descriptive Astronomy with either ASTR 1212 Intro Astronomy of the Solar System or ASTR 1312 Intro Astronomy of Stars and Galaxies.

Major Requirements

Code	Title	Hours
CHEM 1050 & CHEM 1051	General Chemistry I and General Chemistry Laboratory I	4
CHEM 1060 & CHEM 1061	General Chemistry II and General Chemistry Laboratory II	4
CHEM 2210 & CHEM 2211	Elementary Organic Chemistry I and Elementary Organic Chem. Laboratory I	4
CHEM 2220 & CHEM 2221	Elementary Organic Chemistry II and Elementary Organic Chem. Laboratory II	4
CHEM 3140	Quantitative Analysis	4
CHEM 3310	Physical Chemistry I	3
or CHEM 3340	Biophysical Chemistry	
CHEM 4515	Senior Individual Research	1
Select two of the following: [1]		4-7
CHEM 3320	Physical Chemistry II	
CHEM 3400	Introduction to Astrochemistry	
CHEM 4010	Inorganic Chemistry	
CHEM 4231	Organic Analysis	
CHEM 4690	Introduction to Instrumental Analysis	
CHEM 4710	Biochemistry I	
Total Hours		**28-31**

[1] Two additional hours of CHEM 4515 Senior Individual Research may substitute for one of these courses.

[2] The following courses may not be used for major or minor credit: CHEM 1010 Chemical Concepts, CHEM 1030 Survey of Chemistry I, CHEM 1040 Survey of Chemistry II, CHEM 1031 Survey of Chemistry Laboratory I, CHEM 1041 Survey of Chemistry Laboratory II, CHEM 1210 Fundamentals of Organic Chemistry, CHEM 2010 Environmental Chemistry I, CHEM 2020 Environmental Chemistry II, CHEM 2710 Biochemical Concepts, CHEM 3810 Chemistry for Teachers I, CHEM 3820 Chemistry for Teachers II, or CHEM 3830 Chemistry for Teachers III.

Overall Major GPA

Please contact your academic advisor for grade point requirements.

Resident Major GPA

Please contact your academic advisor for grade point requirements.

Major Requirements II

Code	Title	Hours
MATH 2611	Unified Calculus & Analytic Geometry I	3
MATH 2612	Unified Calculus & Analytic Geometry II	3
Select one of the following options:		8
Option 1:		
PHYS 2110	Physics for Science & Engineering I	
PHYS 2120	Physics for Science & Engineering II	
PHYS 2111	Lab Physics for Science & Engineering I	
PHYS 2121	Lab Physics for Science & Engineering II	
Option 2:		
PHYS 2130	General Physics I	
PHYS 2140	General Physics II	
PHYS 2131	Laboratory Physics I	
PHYS 2141	Laboratory Physics II	
Total Hours		**14**