CHEMISTRY, BSLAS

for the degree of Bachelor of Science in Liberal Arts and Sciences Major in Chemistry

Undergraduate Degree Programs in Chemistry

For the Degree of Bachelor of Science in Liberal Arts and Sciences

- · Major in Computer Science & Chemistry, BSLAS (http:// catalog.illinois.edu/undergraduate/eng_las/computer-sciencechemistry-bslas/)
- · Major in Chemistry (Sciences and Letters) (p. 1)
- · Major in Chemistry (Sciences and Letters), Chemistry Teaching Concentration (http://catalog.illinois.edu/undergraduate/las/ chemistry-bslas/chemistry-teaching/)

For the Degree of Bachelor of Science in Chemistry

- · Major in Chemistry (Specialized Curriculum) (http:// catalog.illinois.edu/undergraduate/las/chemistry-bs/ #degreerequirementstext)
- · Major in Chemistry (Specialized Curriculum), Environmental Chemistry Concentration (http://catalog.illinois.edu/undergraduate/ las/chemistry-bs/environmental-chemistry/)

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The Department of Chemistry will supply, upon request, a brochure showing recommended semester-by-semester programs for the completion of the curriculum.

Departmental distinction: Students qualify for graduation with distinction by exhibiting superior performance in both course work and in senior thesis research. To be eligible, a student must have a UIUC coursework major grade point average of 3.25, must take CHEM 499 (normally for two semesters) and submit a senior thesis for evaluation, and must have their undergraduate research advisor submit to the department Head a letter of support attesting to the effort invested by the student. The minimum major GPAs for Distinction, High Distinction, and Highest Distinction are 3.25, 3.5, and 3.75 respectively. Final decisions on awarding Distinction honors will be made by the Head or designee.

General education: Students must complete the Campus General Education (https://courses.illinois.edu/gened/DEFAULT/DEFAULT/) requirements including the campus general education language requirement.

Minimum hours required for graduation: 120 hours, to include a minimum of 40 hours of upper-division coursework generally at the 300 and 400 level. These hours can be drawn from all elements of the degree.

Code	Title	Hours
Orientation and Profe	ssional Development	

LAS 101	Design Your First Year Experience	1
OR		
LAS 100 & LAS 101	Success in LAS for International Students and Design Your First Year Experience	3
OR		

LAS 102	Transfer Advantage	1	
Total Hours		1 or 3	
Code	Title	Hours	
Major Core Requirements			
Chemistry and biochemistry courses			

Chemistry and biochemistry courses are any courses in CHEM

No more than 10 hours of the following courses may count toward the 30 hours: CHEM 197, CHEM 297, CHEM 397, CHEM 497, and CHEM 499. The following courses do not count towards the 30 hours: CHEM 101, CHEM 108, and CHEM 199.

At least 12 of the 30 hours must be at the 300 or 400 level, including at least one course outside physical chemistry. These 12 hours must include CHEM 440 or CHEM 442 and may include MCB 354 or MCB 450.

CHEM 150	First Semester Success in Chemistry
	(Transfer students may elect to take an
	additional 1 hour of 200 level or higher
	Chemistry, including CHEM 297, CHEM 397,
	CHEM 497, or CHEM 499.)

General chemistry courses

Select one of the fo	ollowing:
CHEM 102	General Chemistry I
& CHEM 103	and General Chemistry Lab I
& CHEM 104	and General Chemistry II
& CHEM 105	and General Chemistry Lab II
CHEM 202	Accelerated Chemistry I
& CHEM 203	and Accelerated Chemistry Lab I
& CHEM 204	and Accelerated Chemistry II
& CHEM 205	and Accelerated Chemistry Lab II

Organic chemistry courses Calcat and of the following

Select one of the f	ollowing:
CHEM 232	Elementary Organic Chemistry I
& CHEM 233	and Elementary Organic Chem Lab I
CHEM 236	Fundamental Organic Chem I
& CHEM 237	and Structure and Synthesis
Physical chemistry	/ course

CHEM 440	Physical Chemistry Principles
or CHEM 442	Physical Chemistry I

Mathematics courses

MATH 220	Calculus	4-5
or MATH 221	Calculus I	
MATH 231	Calculus II	3
MATH 241	Calculus III	4

Physics courses

Select one of the fo	8-10	
PHYS 101	College Physics: Mech & Heat	
& PHYS 102	and College Physics: E&M & Modern	
PHYS 211	University Physics: Mechanics	
& PHYS 212	and University Physics: Elec & Mag	

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Sample Sequence

This sample sequence is intended to be used only as a guide for degree completion. All students should work individually with their academic advisors to decide the actual course selection and sequence that works best for them based on their academic preparation and goals. Enrichment programming such as study abroad, minors, internships, and so on may impact the structure of this four-year plan. Course availability is not guaranteed during the semester indicated in the sample sequence.

Students must fulfill their Language Other Than English requirement by successfully completing a fourth level of a language other than English. See the corresponding section on the Degree and General Education Requirements page (http://catalog.illinois.edu/general-information/degree-general-education-requirements/).

First Year

First Semester	Hours	Second Semester Hours	
Free elective course	1	CHEM/BIOC course	3
CHEM 150	1	CHEM/BIOC course	1
CHEM/BIOC course	3	3 MATH 231	3
CHEM/BIOC course	1	General Education course	3
MATH 220 or 221	2	General Education course or Composition I	3
Composition I or General Education course		Free elective course	3
	14	<u> </u>	16
Second Year			
First Semester	Hours	Second Semester Hours	
MATH 241	2	LCHEM/BIOC	3
		course	
CHEM/BIOC	3	3 General	3
course		Education course	
CHEM/BIOC course	3	B Language Other Than English (4th level)	4
Language Other Than English (3rd level)		Free elective course	3
		Free elective course	2
	14	ļ	15
Third Year			
First Semester	Hours	Second Semester Hours	
CHEM 300- or	2	1 CHEM 300- or	4
400- level course	,	400- level course	-
PHYS 101 or 211 General		5 PHYS 102 or 212 3 General	5
Education course		Education course	3
General Education course		3 Free elective course	4
	15	5	16

First Semester Ho	ours Second Semester Hours	
CHEM 440 or 442	4 General Education course	3
General Education course	3 Free elective course	3
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Free elective	3 Free elective	3
course	course	
Free elective	3 Free elective	3
course	course	
Free elective	2 Free elective	3
course	course	

Total Hours 120

Fourth Year

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Students graduating with the BSLAS in Chemistry (Sciences & Letters) will have:

- A thorough knowledge of the basic principles of chemistry, including atomic and molecular structure, chemical dynamics and the chemical and physical properties of substances.
- An exposure to the subfields of chemistry, such as analytical, organic, physical, materials, inorganic, as well as chemical biology.
- The ability to read, evaluate, interpret, and present (via oral and written communication) numerical, chemical and general scientific data, information and literature.
- The ability to carry out experiments, use appropriate experimental apparatus effectively, and demonstrate proper laboratory safety skills.

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Chemistry

Chemistry website (https://chemistry.illinois.edu)

Chemistry Faculty (https://chemistry.illinois.edu/directory/faculty-by-type/)

SCS Academic Advising (http://advising.scs.illinois.edu/)

College of Liberal Arts & Sciences

Liberal Arts & Sciences College & Admissions requirements (http://catalog.illinois.edu/schools/las/)
LAS website (https://las.illinois.edu/)