



CHICAGO STATE  
UNIVERSITY

## Chicago State University

College of Arts and Science

Bachelor of Science

Catalog year 2022-2023

# CHEM

**Chemistry, ACS Certified**

*\*refer to the catalog at csu.edu for updates to program requirements*

Credit Hours	120 credit hours. Students starting a 120 credit hour program in Fall 2018 must complete a minimum of 15 credit hours per semester or 30 credit hours per academic year to earn a Bachelor's Degree on time in 4 years and graduate by May 2022.	
Graph Point Average (GPA)	2.0 GPA (only 1 D in chemistry courses allowed)	
Residency Rule	Complete last 30 hours at Chicago State University. No more than 66 credit hours may be transferred in from a 2 year school	
Examinations	Transfer students who transfer in general education courses that meet their general education requirements in English Composition or Mathematics with a C or better do not have to take the corresponding placement examination.	
General Education Core	Chicago State University requires a minimum of 39 credit hours in the following General Education competencies:	
	English Composition (6 credits); Oral Communication (3 credits); Mathematics (3 credits); Foreign language (3 credits);	Social Science (9 credits); Humanities (3 credits); Fine Arts (3 credits); Humanity OR Fine Arts (3 credits); Biological Sciences (3 credits); Natural Sciences (3 credits)
	Students must also complete 1 embedded diversity course. Some courses may fulfill more than one requirement. Only approved courses will satisfy Gen Ed Requirements. Transfer students with an AA or AS degree have met all General Education Requirements.	

	Subject Code/ Course Number	Term Offered (if specific)	Credit Hours	Gen Ed	Also Allowed	Pre/Co-requisite Courses
<b>SEMESTER 1</b>						
College Algebra	Math 1200		3	Yes	Math 1250	Math placement test or Math 0990
Composition I	Eng 1270		3	Yes	Eng 1230	
General Chemistry I	Chem 1400		3	Yes		Math 1200 and Chem 1410
General Chemistry I Lab	Chem 1410		1	Yes		Chem 1400
Chemical Calculations	Chem 1000		1			FYSE
Foreign Language	Span/Fren/Chin/AFL 1010		3	Yes	Other languages allowed	
<b>SEMESTER 2</b>						
Trigonometry	Math 1210		3	Yes	Math 1250	Math 1200
Composition II	Eng 1280		3	Yes	Eng 1240	Eng 1270
General Chemistry II	Chem 1450		3			Math 1210 and Chem 1460
General Chemistry II Lab	Chem 1460		1			Chem 1450
Fine Art or Humanity			3	Yes		
Oral Communication	CMAT 2030		3	Yes	Eng 2011	

<b>SEMESTER 3</b>						
Calculus I	Math 1410		4		Math 1415	Math 1210 or Math 1250
Calculus based Physics I	Phys 2110		4			Math 1410
Analytic Chemistry I Lecture	Chem 2800	F	3			Chem 1450/1460
Analytic Chemistry I Lab	Chem 2810	F	1			Chem 1450/1460
Safety	Chem 2600		1			
Social Science Elective			3	Yes		

SEMESTER 4						
Calculus II	Math 1420		4			Math 1410
Calculus based Physics II	Phys 2220		4			Phys 2110/Math 1420
Organic Chemistry I	Chem 2400		3			Chem 1450/1460
Organic Chemistry I Lab	Chem 2410		1			Chem 2400
Social Science Elective			3	Yes		

SEMESTER 5						
Organic Chemistry II	Chem 2450		3			Chem 2400/2460
Organic Chemistry II Lab	Chem 2460		1			Chem 2450
Elementary Inorganic	Chem 3240	F	3			
Fine Arts Elective			3		Yes	
Social Science Elective			3		Yes	
Thesis Research I	Chem 2630		1			Permission of research mentor

SEMESTER 6						
Macroscopic Physical Chemistry	Chem 4250	S	3			Math 1420/Phys 2220
Introduction to Biology	Biol 1701		4		Biol 1070 & 1080	
Humanities Elective			3	Yes		
Thesis Research I	Chem 2630		2		Permission of research mentor	
Free Elective			3			

SEMESTER 7						
Microscopic Physical Chemistry	Chem 4200	F	3			Math 1420/Phys 2110
Microscopic Physical Chemistry Lab	Chem 4210	F	1			Math 1410
Chemical Communication	Chem 3600	F	2			Eng 1280
Biochemistry I	Chem 4303	F	3			Chem 2450/2460
Biochemistry I Lab	Chem 4304	F	1			Chem 4302
Free Elective			3			
Free Elective			3			

SEMESTER 8						
Analytic Chemistry II Lecture	Chem 4600	S	1			Chem 2800/2810
Analytic Chemistry II Lab	Chem 4610	S	3			Chem 2800/2810
Advanced Lab	Chem 4270	S	1			Chem 4210
Advanced Inorganic	Chem 4100	S	3		Chem 4300/ Chem 4313	Chem 4200
Senior Thesis	Chem 4355		3		Permission of research mentor and 180 hours of research	
Free Elective			3			

Notes: Students doing summer research or research for pay are not required to take Chem 2630 for a total of 3 credits. If you do a summer REU or do research for pay, these 3 credits become a free elective. However, 180 hours of research must be completed **before** you can take Chem 4355.

Students completing this program will receive acknowledgement from the American Chemical Society that they have earned an ACS certified degree.