CHICAGO STATE UNIVERSITY

City Colleges of Chicago

Transfer Guide

BS in Chemistry (CHEM)

Chicago State University has a longstanding mission to provide a diverse group of students with access to quality higher education. This access prepares students to meet their educational goals and make meaningful contributions to their communities. Chicago State University's current mission documents reaffirm this distinctive goal, underscoring the institution's dedication to social justice and leadership, and declaring a new focus on community development through entrepreneurship.

Program Overview

The Department of Chemistry, Physics, and Engineering Studies offers a Bachelor of Science degree in Chemistry. The general goal of the chemistry program is to prepare students for scientific careers in industry, government, and education, as well as for advanced study in chemistry or a related discipline, such as biochemistry, medicine, forensic science, dentistry, patent law, or pharmacy. The chemistry program aids students in developing the following:

- A broad foundation in the theory, principles, and history of chemistry
- Skills in analytical reasoning and problem solving
- Necessary laboratory, safety, and literature skills
- Effective oral and written communication skills, including notebook keeping, graphing, writing laboratory reports, using computers for data analysis, and conducting research presentations
- An understanding of the impact of chemistry on industry, society, and the environment, and an appreciation of the roles and responsibilities of chemists in today's world

The Chemistry Option (CHEM) prepares students for research, industrial, and governmental careers, or for graduate study in chemistry or related fields. Students completing this option will receive a degree certified by the American Chemical Society.

Highlights

- High quality teaching, a family environment, faculty engagement, and support from peer mentoring programs.
- Engagement in hands-on, minds-on, STEM Research.
- Opportunities to attend, present, and communicate science at local and national conferences – CSU students have given presentations all over the world – from Chicago to Switzerland!
- Local, national, and global internship opportunities.

Advisor Contact Information

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Articulation Crosswalk for BS in Chemistry: ACS Option (CHEM)

Chicago City Colleges Associate in Applied Science (0137) AAS Chemical Laboratory Technology			**Chicago State University BS in Chemistry: ACS Option (CHEM)**		
Course #	**Title**	**Credit Hours**	**Course #**	**Title**	**Credit Hours**
ENG 101	Composition I	3	ENG 1270	Composition I	3
MATH 140	College Algebra	4*	MATH 1200	College Algebra	3 (4)
Fine Arts/ Humanities	IAI Fine Arts or Humanities	3	Fine Arts/ Humanities	IAI Fine Arts or Humanities	3
Social/Behavioral Science	IAI Social/Behavioral Science	3	Social/ Behavioral Science	IAI Social/Behavioral Science	3
Gen Ed HD	General Education Human Diversity (HD) Course	3		IAI Fine Arts, Humanities, or Social/Behavioral Science	3
Recommended Program Core:					
CHEM 201	General Chemistry I	5*	CHEM 1400/1410	General Chemistry I Lecture and Lab	4 (5)
CHEM 203	General Chemistry II	5*	CHEM 1450/1460	General Chemistry II Lecture and Lab	4 (5)
CHEM 205	Organic Chemistry I	6*	CHEM 2400/2410	Organic Chemistry I Lecture and Lab	4 (6)
CHEM 207	Organic Chemistry II	6*	CHEM 2450/2460	Organic Chemistry II Lecture and Lab	4 (6)
CHEM 217	Introduction to Instrumental Analysis	4*		Elective	4
MATH 207	Calculus & Analytic Geometry I	5*	MATH 1410	Calculus I	4 (5)
Recommended Program Electives:					
MATH 141	Plane Trigonometry	3	MATH 1210	Trigonometry	3
MATH 208	Calculus & Analytic Geometry II	5*	MATH 1420	Calculus II	4 (5)
PHYSICS 235	Engineering Physics I: Mechanics & Wave Motion I	5*	PHYS 2110	Physics I with Calculus	4 (5)
PHYSICS 236	Engineering Physics II: Electricity & Magnetism	5*	PHYS 2220	Physics II with Calculus	4 (5)
Total Credit Hours Taken at CCC		**65**	**Total Credit Hours Transferred to CSU**		**65**

*Math courses and science lab courses that equal 4, 5, or 6 credit hours at City Colleges transfer as such to CSU.

Courses required at CSU for BS in Chemistry: ACS Accredited Option (CHEM)	
CSU Courses	**Credit Hours**
General Education Courses:	
ENG 1280 Composition II	3
Foreign Language I	3
CMAT 2030 Basic Speech Communication	3
IAI Fine Arts, Humanities, or Social/Behavioral Science** ***	3
IAI Fine Arts, Humanities, or Social/Behavioral Science** ***	3
IAI Fine Arts, Humanities, or Social/Behavioral Science** ***	3
Chemistry Courses:	
CHEM 2600 Introduction to Chemical Laboratory Practices	1
CHEM 2800/2810 Analytic Chemistry I: Lecture and Lab	4
CHEM 3240 Inorganic Chemistry	3
CHEM 3600 Scientific Communications	2
CHEM 4100 Advanced Inorganic Chemistry	3
CHEM 4200 Microphysical Chemistry Lecture	3
CHEM 4210 Microphysical Chemistry Lab	1
CHEM 4250 Macrophysical Chemistry Lecture	3
CHEM 4270 Advanced Laboratory	1
CHEM 4303 Biochemistry I Lecture	3
CHEM 4304 Biochemistry I Lab	1
CHEM 4355 Senior Thesis	3
CHEM 4600 /4610 Analytic Chemistry: Lecture and Lab	4
Supportive Biology Course:	
BIOL 1710 Introduction to Biology	4
Electives	1
CSU Completion Credit Hours	**55**

** Three Fine Arts/Humanities courses and three Social/Behavioral Sciences courses are required for the BS degree.
*** Two disciplines are required for Fine Arts/Humanities. Two disciplines are required for Social/Behavioral Sciences.

CCC Transferred Credit Hours	**65**
CSU Completion Credit Hours	**55**
Total Degree Credit Hours	**120**