

CHEMISTRY - GENERAL CHEMISTRY WITH ACS CERTIFICATION (BACHELOR OF SCIENCE)

The concentration in General Chemistry with the American Chemical Society Certification (ACS) is for students seeking careers as chemists or seeking admission to graduate programs in chemistry. This program is designed for the student who intends to become a professional chemist. The requirements for the Bachelor of Science degree in General Chemistry with ACS certification are:

Course	Title	Credits
Chemistry Requirements		
CY 105 & CY 107	General Chemistry I and General Chemistry Laboratory I	4
CY 106 & CY 108	General Chemistry II and General Chemistry Laboratory II	4
CY 231	Organic Chemistry I	4
CY 232	Organic Chemistry II	4
CY 341	Physical Chemistry I (WI)	4
CY 362	Biochemistry I (WI)	4
General Chemistry Concentration		
CY 321	Quantitative Analysis	4
CY 342	Physical Chemistry II	4
CY 411	Intermediate Inorganic Chemistry	4
CY 421	Instrumental Analysis	4
CY 497	Chemistry Research	1
Select a minimum of 4 hours of CY electives		4
CY 363	Biochemistry II	
CY 413	Pharmacology	
CY 414	Medical Biochemistry	
CY 416	Forensic Chemistry	
CY 417	Macro-Molecular Modeling	
CY 418	Enzymology	
CY 419	Advanced Materials and Technology	
CY 435	Advanced Topics in Chemistry	
CY 450	Neurochemistry	
CY 490	Internship	
Support Courses		
MS 125	Calculus I	4
MS 126	Calculus II	4
PHS 221	Physics for Scientists and Engineers I w/Lab	4
PHS 222	Physics for Scientists and Engineers II w/Lab	4
Total Hours		61

In addition to courses noted below, candidates for graduation must successfully complete all JSU Academic Regulations. **More information about general education requirements can be found in the Summary of Degrees/Requirements (<https://catalog.jsu.edu/undergraduate/summary-degrees-requirements/>) section of the catalog.**

Freshman		
Fall		Hours
EH Composition sequence		3
MS 125	Calculus I	4
CY 105 & CY 107	General Chemistry I and General Chemistry Laboratory I	4
SSC 101	First Year Experience	0
Elective		3
Hours		14
Spring		
EH Composition sequence		3
MS 126	Calculus II	4
CY 106 & CY 108	General Chemistry II and General Chemistry Laboratory II	4
Area IV Social/Behavioral ²		3
Elective		3
Hours		17
Sophomore		
Fall		
Literature/History ¹		3
CY 231	Organic Chemistry I	4
PHS 221	Physics for Scientists and Engineers I w/Lab	4
Elective		4
Hours		15
Spring		
Literature/History ¹		3
CY 232	Organic Chemistry II	4
PHS 222	Physics for Scientists and Engineers II w/Lab	4
Elective		6
Hours		17
Junior		
Fall		
Literature/History ¹		3
Area IV Social/Behavioral ²		3
EH 141	Speech	3
CY 362	Biochemistry I (WI)	4
CY 497	Chemistry Research	1
Hours		14
Spring		
Area II/Area IV Elective ²		3
CY 321	Quantitative Analysis	4
CY 411	Intermediate Inorganic Chemistry	4
300+ Elective		4
Hours		15
Senior		
Fall		
Fine Arts ²		3
CY 341	Physical Chemistry I (WI)	4
300+ Elective		3
Elective		4
Hours		14
Spring		
CY 342	Physical Chemistry II	4
CY 421	Instrumental Analysis	4
CY 300+ Elective		4
Elective		2
Hours		14
Total Hours		120

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¹ Either a History or a Literature sequence is required with minimum of 3 hours required in both History and Literature.

² A total of 12 hours in Areas II and IV is required.