Chemistry Curriculum Guides

The following are curriculum guides for a four-year Chemistry degree program and is subject to change without notice. Students should consult a Chemistry program advisor to ensure that they have the most accurate and up-to-date information available about a particular four-year degree option.

- Chemistry
 - General Major
 - ACS Certified Major
 - ACS Certified Major in Environmental Chemistry

General Major

An example: Four year plan for Chemistry Major

120 credits necessary to graduate.

Plan is a representation and categories of classes can be switched. Check with your advisor.

Course	Title	Credits
Freshman	THE STATE	oreans
Fall		
CHEM 211	Principles of Chemistry I	4
CHEM 213	Principles of Chemistry I	1
	Laboratory	
MATH 202	Calculus and Analytic	4
	Geometry I	
First Year Seminar		3
General Ed		3
	Credits	15
Spring		
CHEM 207	Laboratory Safety	1
CHEM 212	Principles of Chemistry II	4
CHEM 214	Principles of Chemistry II	1
	Laboratory	
MATH 203	Calculus and Analytic Geometry II	4
General Ed	Geometry in	3
General Ed		3
	Credits	16
Sophomore	Cicuits	10
Fall		
CHEM 302	Organic Chemistry I	3
CHEM 304	Organic Chemistry	1
	Laboratory I	1
PHYSICS 201	Principles of Physics I	5
General Ed		3
Elective		3
	Credits	15
Spring		
CHEM 303	Organic Chemistry II	3
CHEM 305	Organic Chemistry	1
	Laboratory II	
CHEM 311	Analytical Chemistry	4
PHYSICS 202	Principles of Physics II	5
General Ed		3
	Credits	16
Junior		
Fall		
CHEM 320	Thermodynamics and Kinetics	3
CHEM 322	Thermodynamics and Kinetics Laboratory	1
General Ed		3
General Ed		3

Elective		3
Elective		3
	Credits	16
Spring		
CHEM 321	Structure of Matter	3
CHEM 323	Structure of Matter Laboratory	1
General Ed		3
General Ed		3
Elective		3
	Credits	13
Senior		
Fall		
CHEM 413	Instrumental Analysis	4
General Ed		3
Elective		3
Elective		3
Elective		3
	Credits	16
Spring		
Chemistry Upper Level Elective Lecture		3
Chemistry Upper Level Elective Lab		1
Elective		3
Elective		3

Total Credits

Credits

3

13

120

ACS Certified Major

Elective

An example: Four year plan for Chemistry - ACS Certified Major - Professional Major

120 credits necessary to graduate.

Plan is a representation and categories of classes can be switched. Some upper level courses are only taught once every other year. Check with your advisor for course periodicity.

Course	Title	Credits
Freshman		
Fall		
CHEM 211	Principles of Chemistry I	4
CHEM 213	Principles of Chemistry I Laboratory	1
MATH 202	Calculus and Analytic Geometry I	4
First Year Seminar		3
General Ed		3
	Credits	15
Spring		
CHEM 207	Laboratory Safety	1
CHEM 212	Principles of Chemistry II	4
CHEM 214	Principles of Chemistry II Laboratory	1
MATH 203	Calculus and Analytic Geometry II	4
General Ed		3
General Ed		3
	Credits	16
Sophomore		
Fall		
CHEM 302	Organic Chemistry I	3
CHEM 304	Organic Chemistry Laboratory I	1
MATH 209	Multivariate Calculus	4
PHYSICS 201	Principles of Physics I	5

General Ed	- W	:
	Credits	10
Spring	Orrenia Chemister II	,
CHEM 303 CHEM 305	Organic Chemistry II	:
CHEM 305	Organic Chemistry Laboratory II	
CHEM 311	Analytical Chemistry	4
PHYSICS 202	Principles of Physics II	ŧ
General Ed		:
	Credits	16
Junior		
Fall		
CHEM 320	Thermodynamics and Kinetics	1
CHEM 322	Thermodynamics and Kinetics Laboratory	
CHEM 330	Biochemistry	:
CHEM 331	Biochemistry Laboratory	
General Ed		:
General Ed		:
	Credits	14
Spring		
CHEM 321	Structure of Matter	:
CHEM 323	Structure of Matter Laboratory	
General Ed		:
General Ed		:
Elective		:
Elective		:
	Credits	10
Senior		
Fall	lastrumental Apolysia	
CHEM 413 CHEM 496	Instrumental Analysis Project/Research	1-6
	Assistantship	1-0
General Ed		(
Elective		:
Elective		:
	Credits	14-19
Spring		
CHEM 410	Inorganic Chemistry	:
CHEM 411	Inorganic Chemistry Laboratory	
Elective		:
Elective		:
Elective		:
		1:

ACS Certified Major in Environmental Chemistry

An example: Four year plan for **Chemistry – ACS Certified Major in Environmental Chemistry - Professional Major** 120 credits necessary to graduate.

Plan is a representation and categories of classes can be switched. Some upper level courses are only taught every other year. Check with your advisor for course periodicity.

Course	Title	Credits
Freshman		
Fall		
BIOLOGY 201	Principles of Biology:	3
	Cellular and Molecular	
	Processes	

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BIOLOGY 202	Principles of Biology Lab: Cellular and Molecular Processes	1
CHEM 211	Principles of Chemistry I	4
CHEM 213	Principles of Chemistry I Laboratory	1
GEOSCI 202	Physical Geology	4
MATH 202	Calculus and Analytic Geometry I	4
	Credits	17
Spring		
BIOLOGY 323	Principles of Microbiology	3
BIOLOGY 324	Principles of Microbiology Laboratory	1
CHEM 207	Laboratory Safety	1
CHEM 212	Principles of Chemistry II	4
CHEM 214	Principles of Chemistry II Laboratory	1
ENV SCI 102	Introduction to Environmental Sciences	3
MATH 203	Calculus and Analytic	4
	Geometry II Credits	17
Sophomore	ordula	
Fall		
CHEM 302	Organic Chemistry I	3
CHEM 304	Organic Chemistry Laboratory I	1
MATH 260	Introductory Statistics	4
PHYSICS 201	Principles of Physics I	5
General Ed		3
	Credits	16
Spring		0
CHEM 303 CHEM 305	Organic Chemistry II Organic Chemistry	3
	Laboratory II	
CHEM 311	Analytical Chemistry	4
PHYSICS 202	Principles of Physics II	5
General Ed		3
had a	Credits	16
Junior Fall		
CHEM 320	Thermodynamics and Kinetics	3
CHEM 322	Thermodynamics and Kinetics Laboratory	1
CHEM 330	Biochemistry	3
CHEM 331	Biochemistry Laboratory	1
General Ed		3
Elective		3
	Credits	14
Spring		
CHEM 321 CHEM 323	Structure of Matter Structure of Matter	3 1
	Laboratory	I
ENV SCI 305	Environmental Systems	4
Conorol Ed		3
General Ed		
General Ed		3
		3 3
General Ed Elective	Credits	3
General Ed	Credits	3 3

CHEM 413

	Total Credits	121-126
	Credits	10
General Ed		3
General Ed		3
	Laboratory	
CHEM 411	Inorganic Chemistry	1
CHEM 410	Inorganic Chemistry	3
Spring		
	Credits	14-19
General Ed		3
General Ed		3
General Ed		3
CHEM 496	Project/Research Assistantship	1-6