

# CHEMISTRY, BACHELOR OF ARTS AND BACHELOR OF SCIENCE

Code	Title	Hours
<b>General Education Courses</b>		
<i>I. Communication</i>		
English:		
Select two of the following:		6
ENGL U101	Composition I	
ENGL U102	Composition II	
Speech:		
SPCH U201	Foundations in Oral Communication	3
<i>II. Mathematics, Logic &amp; Natural Sciences</i> <sup>1,2</sup>		
Mathematics:		
MATH U141	Calculus I	4
MATH U142	Calculus II	4
Natural Science (w/ lab):		
CHEM U111 & U111L	General Chemistry and General Chemistry Lab	4
CHEM U112 & U112L	General Chemistry and Qualitative Analysis and General Chemistry and Qualitative Analysis Lab	4
<i>III. Information Technology</i>		
Information Technology:		
Select one of the following:		3
CSCI U138	Introduction to Computer Technology	
CSCI U150	Introduction to Computer Science	
INFO U101	Survey of Information Technology	
LIBR U201	Strategies for Information Discovery	
<i>IV. Fine Arts, Humanities &amp; History</i>		
Fine Arts:		
Select one of the following:		3
ARTH U101	Introduction to Art	
ARTH U105	History of Western Art: Prehistory - Middle Ages	
ARTH U106	History of Western Art: Renaissance - Modern	
MUSC U110	Introduction to Music	
MUSC U140	History of American Popular Music	
THEA U161	Introduction to Theatre Art	
THEA U170	Fundamentals in Acting	
History:		
Select one of the following:		3
HIST U101	Introduction to World History I	
HIST U102	Introduction to World History II	
HIST U105	History of the United States to 1877	
HIST U106	History of the United States from 1865	
<i>V. Foreign Language &amp; Culture</i>		
Foreign Language:		
Select one of the following: <sup>3</sup>		3
ASLG U101	American Sign Language I	
FREN U101	Introductory French I	

GERM U101	Introductory German I	
SPAN U101	Introductory Spanish I	
<i>VI. Social &amp; Behavioral Sciences</i>		
Social & Behavioral Science:		
Select two of the following with two disciplines represented:		6
AFAM U201	Introduction to African American Studies	
ANTH U102	Understanding Other Cultures	
ECON U221	Principles of Macroeconomics	
ECON U222	Principles of Microeconomics	
GEOG U103	Introduction to Geography	
POLI U101	American National Government	
PSYC U101	Introduction to Psychology	
SOCY U101	Introduction to Sociology	
SPCH U210	Interpersonal Communication	
WGST U101	Introduction to Women's & Gender Studies	
<i>VII. General Education Electives</i>		
General Education Electives:		0
<b>Major Requirements</b>		
Select one of the following:		74-79
B.A. (p. 1)		
B.S. (p. 2)		
B.S. for ACS Certified Concentration (p. 2)		
<i>Total Hours 120</i>		

<sup>1</sup> A minimum grade of C or better is required.

<sup>2</sup> For MATH U141 Calculus I, students must satisfy prerequisites by math placement exam or passing MATH U126 Precalculus I and MATH U127 Precalculus II with a grade of C or better.

<sup>3</sup> The minimum acceptable level of competency is completion of the 101 level of a language. Students who place into the 102 or higher level of a language satisfy the language requirement but will have additional hours in general education electives, if hours are required by their degree program.

## Major Requirements

### B.A.

Code	Title	Hours
<b>Major Requirements</b> <sup>1,2,3</sup>		
CHEM U321	Quantitative Analysis	3
CHEM U321L	Quantitative Analysis Laboratory	1
CHEM U331	Organic Chemistry I	3
CHEM U331L	Organic Chemistry Laboratory I	1
CHEM U332	Organic Chemistry II	3
CHEM U332L	Organic Chemistry Laboratory II	1
CHEM U541	Physical Chemistry I	3
CHEM U599	Senior Seminar	3
CHEM U511	Inorganic Chemistry	3
	or CHEM U581 Biochemistry I	
Select four credits of any 300-level or higher chemistry course not already taken		4
<b>Supporting Courses</b>		
CHEM U201	Science Career Catalyst	1

PHYS U201 & PHYS U202 or PHYS U211 & PHYS U212	General Physics I and General Physics II Essentials of Physics I and Essentials of Physics II	8
<b>Electives or Minor</b>		<b>19-43</b>
Select 19-43 elective credits		
Select 18-24 credits; 12 must be upper-division coursework		
<b>Total Hours</b>		<b>77</b>

<sup>1</sup> A minimum grade of C or better is required.

<sup>2</sup> To receive a chemistry degree from USC Upstate, students must complete at least 15 hours of major course credit at USC Upstate.

<sup>3</sup> Only one credit of CHEM U499 Undergraduate Research may be used to satisfy the upper level major requirements for the B.A. degree or non-ACS Certified B.S. degree; up to 2 credits of CHEM U499 Undergraduate Research may be used for major credits for the ACS Certified B.S. degree.

<sup>4</sup> Up to 6 hours (8 hours if lab courses) of General Education (<300 level) may be used to satisfy requirements of a minor.

## B.S.

Code	Title	Hours
<b>Major Requirements</b> <sup>1,2</sup>		
CHEM U321	Quantitative Analysis	3
CHEM U321L	Quantitative Analysis Laboratory	1
CHEM U331	Organic Chemistry I	3
CHEM U331L	Organic Chemistry Laboratory I	1
CHEM U332	Organic Chemistry II	3
CHEM U332L	Organic Chemistry Laboratory II	1
CHEM U511	Inorganic Chemistry	3
CHEM U541	Physical Chemistry I	3
CHEM U542	Physical Chemistry II	3
CHEM U541L	Physical Chemistry I Laboratory	1
CHEM U542L	Physical Chemistry II Laboratory	1
CHEM U581	Biochemistry I	3
CHEM U599	Senior Seminar	3
Select seven credits of the following:		7
CHEM U371	Environmental Chemistry	
CHEM U371L	Environmental Chemistry Lab	
CHEM U499	Undergraduate Research <sup>3</sup>	
CHEM U522	Instrumental Methods of Analysis	
CHEM U530	Spectrometric Identification of Organic Compounds	
CHEM U534	Polymer Chemistry	
CHEM U561	Medicinal Chemistry	
CHEM U582	Biochemistry II	
CHEM U583L	Biochemistry Laboratory	
<b>Supporting Courses</b>		
CHEM U201	Science Career Catalyst	1
PHYS U201 & PHYS U202 or PHYS U211 & PHYS U212	General Physics I and General Physics II Essentials of Physics I and Essentials of Physics II	8
<b>Electives or Minor</b>		<b>8-32</b>

Select 8-32 elective credits

*Minor (not required to earn a degree)*<sup>1,4</sup>

Select 18-24 credits; 12 must be upper-division coursework

**Total Hours** 77

<sup>1</sup> A minimum grade of C or better is required.

<sup>2</sup> To receive a chemistry degree from USC Upstate, students must complete at least 15 hours of major course credit at USC Upstate.

<sup>3</sup> Only one credit of CHEM U499 Undergraduate Research may be used to satisfy the upper level major requirements for the B.A. degree or non-ACS Certified B.S. degree; up to 2 credits of CHEM U499 Undergraduate Research may be used for major credits for the ACS Certified B.S. degree.

<sup>4</sup> Up to 6 hours (8 hours if lab courses) of General Education (<300 level) may be used to satisfy requirements of a minor.

## B.S. for ACS Certified Concentration

Code	Title	Hours
<b>Major Requirements</b> <sup>1,2</sup>		
CHEM U321	Quantitative Analysis	3
CHEM U321L	Quantitative Analysis Laboratory	1
CHEM U331	Organic Chemistry I	3
CHEM U331L	Organic Chemistry Laboratory I	1
CHEM U332	Organic Chemistry II	3
CHEM U332L	Organic Chemistry Laboratory II	1
CHEM U499	Undergraduate Research <sup>3</sup>	1
CHEM U511	Inorganic Chemistry	3
CHEM U522	Instrumental Methods of Analysis	4
CHEM U541	Physical Chemistry I	3
CHEM U541L	Physical Chemistry I Laboratory	1
CHEM U542	Physical Chemistry II	3
CHEM U542L	Physical Chemistry II Laboratory	1
CHEM U581	Biochemistry I	3
CHEM U583L	Biochemistry Laboratory	1
CHEM U599	Senior Seminar	3
Select one of the following:		3
CHEM U371	Environmental Chemistry	
CHEM U530	Spectrometric Identification of Organic Compounds	
CHEM U534	Polymer Chemistry	
CHEM U561	Medicinal Chemistry	
CHEM U582	Biochemistry II	
CHEM U371L	Environmental Chemistry Lab <sup>3</sup> or CHEM U499 Undergraduate Research	1
<b>Supporting Courses</b>		
CHEM U201	Science Career Catalyst	1
PHYS U201 & PHYS U202 or PHYS U211 & PHYS U212	General Physics I and General Physics II Essentials of Physics I and Essentials of Physics II	8
<b>Electives or Minor</b>		<b>5-29</b>
Select 5-29 elective credits		
<i>Minor (not required to earn a degree)</i> <sup>1,4</sup>		

Select 18-24 credits; 12 must be upper-division coursework

*Total Hours* 77

- <sup>1</sup> A minimum grade of C or better is required.
- <sup>2</sup> To receive a chemistry degree from USC Upstate, students must complete at least 15 hours of major course credit at USC Upstate.
- <sup>3</sup> Only one credit of CHEM U499 Undergraduate Research may be used to satisfy the upper level major requirements for the B.A. degree or non-ACS Certified B.S. degree; up to 2 credits of CHEM U499 Undergraduate Research may be used for major credits for the ACS Certified B.S. degree.
- <sup>4</sup> Up to 6 hours (8 hours if lab courses) of General Education (<300 level) may be used to satisfy requirements of a minor.