

# CHEMISTRY, ASSOCIATE IN SCIENCE FOR UC TRANSFER

This Associate in Science degree in Chemistry for UC Transfer degree is intended to facilitate transfer and increase academic preparation for students as they prepare to transfer into a Chemistry program at a UC campus. Along with the Transfer Agreement Guarantee (TAG), students completing this degree are guaranteed admission to the UC system, but not necessarily to a particular UC campus or major of their choice. Students should consult with a counselor for more information on university admission and transfer requirements, as this degree in Chemistry may not be the best option for students intending to transfer to a particular UC campus or to a college or university that is not part of the UC system.

To earn an Associate in Science in Chemistry for UC Transfer degree, students must:

1. Complete 53 semester units in Chemistry major preparation, as prescribed on the UCTP Template.
2. Complete IGETC\* courses in the following areas, as prescribed on the UCTP Template.
  - a. Area 1A Freshman Composition (3 units)
  - b. Area 1B Critical Thinking (3 units)
  - c. Area 3 Arts and Humanities (3 units)
  - d. Area 4 Social and Behavioral Science (3 units)
  - e. Area 5B Biological Science (4 units)
  - f. Area 6 Language other than English (0-4 units)
3. Meet the specified requirements as stated in the Transfer Agreement Guarantee (TAG) for the available school.
4. Obtain a cumulative minimum grade point average (GPA) of 3.5 in the major. Students that earn less than 3.5 GPA (UC transferable) still meet the associate degree graduation requirement but will not receive the guaranteed admission into a UC.
5. Obtain a grade of "C" or better or "P" in all courses required in the major. Even though a "pass-no-pass" is allowed (Title 5 § 55063), it is highly recommended that students complete their major courses with a letter grade due to unit limitations on "P/NP" courses by the UC system.
6. Complete requirements in residency. For students in the Ventura County Community College District, a minimum of 12 units must be completed in residence at the college granting the degree.

\*NOTE: This degree allows for the deferment of IGETC courses, including two courses in Area 3 (Arts and Humanities) and two courses in area 4 (Social Science). These deferred IGETC requirements are to be completed at the UC, after transfer.

Course ID	Title	Units/ Hours
<b>Required Core Courses:</b>		<b>53</b>
CHEM R120	General Chemistry I	5
CHEM R122	General Chemistry II	5
CHEM R130	Organic Chemistry I	5
CHEM R132	Organic Chemistry II	5
PHYS R131	Physics for Scientists and Engineers 1	5
PHYS R132	Physics for Scientists and Engineers 2	5

PHYS R133	Physics for Scientists and Engineers 3	5
MATH R120	Calculus with Analytic Geometry I	5
MATH R121	Calculus with Analytic Geometry II	5
MATH R122	Calculus with Analytic Geometry III	5
MATH R143	Differential Equations	3
<b>IGETC General Education Requirements</b>		<b>20</b>
<b>Area 1A Freshman Composition: Select one course</b>		
ENGL R101	College Composition	4
or ENGL R101H	Honors: College Composition	
<b>Area 1B Critical Thinking: Select one course</b>		
ENGL R102	Critical Thinking through Composition and Literature	4
or ENGL R102H	Honors: Critical Thinking through Composition and Literature	
ENGL R128	Composition and Critical Thinking through Non-Fiction	3
PHIL R111	Critical Thinking and Analytic Writing	3
<b>Area 3 Arts and Humanities: Select one course</b>		
ANTH R110	People of the World: The Cultures of Globalization and Change	3
ANTH R111	Magic, Witchcraft and Religion: Anthropology of Belief	3
or ANTH R111H	Honors: Magic, Witchcraft and Religion: Anthropology of Belief	
ANTH R113	Ancient Civilizations of the Americas	3
ANTH R116/ IDS R102	Science, Technology, and Human Values	3
ART R101	Introduction to Art and Visual Culture	3
ART R102	Western Art I: Prehistory through the Middle Ages	3
ART R103	Western Art II: Renaissance to Contemporary	3
ART R171	Modern Art	3
ART R172	Art of the Ancient Americas	3
ART R174	Latin American Art	3
ASL R103	American Sign Language 3	4
ASL R104	American Sign Language 4	4
ENGL R104	English Literature I	3
ENGL R105	English Literature II	3
ENGL R107	American Literature I	3
ENGL R108	American Literature II	3
ENGL R111	Shakespeare	3
ENGL R112	Literature by Women	3
ENGL R124	Introduction to LGBTIQ Literature	3
ENGL R125	Children's Literature	3
ENGL R126	Introduction to Chicana/o Literature	3
ESL R100	College Writing Preparation for Non-Native Speakers	4
FTVE R107	History of Film	3
HIST R108	African-American History	3
HIST R109	History of Mexico	3
HIST R110	History of the Middle East	3
HIST R150	World History I	3
or HIST R150H	Honors: World History I	

HIST R160	World History II	3	CHST/SOC R108	Sociology of the Chicano Community	3
or HIST R160H	Honors: World History II		COMM R102	Introduction to Communication Studies	3
MUS R101	Fundamentals of Music	3	COMM R111	Interpersonal Communication	3
MUS R103	Music Appreciation	3	COMM R113	Intercultural Communication	3
MUS R116	History of Rock Music	3	ECE R102	Child Growth and Development	3
MUS R109	Music of Latin America	3	ECON R100	Introduction to Economics and Contemporary Economics Issues	3
PHIL R101	Introduction to Philosophy	3	ECON R201	Introduction to the Principles of Microeconomics	3
or PHIL R101H	Honors: Introduction to Philosophy		or ECON R201H	Honors: Introduction to the Principles of Microeconomics	
PHIL R102	Introduction to Ethics	3	ECON R202	Introduction to the Principles of Macroeconomics	3
or PHIL R102H	Honors: Introduction to Ethics		or ECON R202H	Honors: Introduction to the Principles of Macroeconomics	
PHIL R103	Survey of World Religions: East	3	GEOG R102	World Regional Geography	3
PHIL R104	Survey of World Religions: West	3	GEOG R104	Geography of California	3
PHIL R105	History of Ancient and Medieval Philosophy	3	GEOG R105	Introduction to Human Geography	3
PHIL R106	History of Modern Philosophy	3	GLST R101	Introduction to Global Studies	3
PHIL R108	World Mythology	3	GLST R102	Global Issues and Problems	3
PHIL R110	Philosophy of Religion	3	HED R113	Introduction to Public Health	3
PHIL/SOC R114	Social Philosophy	3	HIST R104	History of California	3
PHIL R115	Comparative World Religions	3	HIST R108	African-American History	3
or PHIL R115H	Honors: Comparative World Religions		HIST R109	History of Mexico	3
PHIL R116	Contemporary Moral Issues	3	HIST R110	History of the Middle East	3
SPAN R210	Intermediate Spanish II	4	HIST R117	History of American Women	3
SPAN R220	Spanish for Heritage Speakers I	4	HIST R124	Sports in American History	3
or SPAN R220H	Honors: Spanish for Heritage Speakers I		HIST R125	U.S. Foreign Policy and Covert Action	3
SPAN R230	Spanish for Heritage Speakers II	4	or HIST R125H	Honors: U.S. Foreign Policy and Covert Action	
or SPAN R230H	Honors: Spanish for Heritage Speakers II		HIST R130	History of the United States I	3
SPAN R232	Latin American Literature	3	or HIST R130H	Honors: History of the United States I	
or SPAN R232H	Honors: Latin American Literature		HIST R140	History of the United States II	3
SPAN R234	Latin American and Spanish Film	3	or HIST R140H	Honors: History of the United States II	
SPAN R236	Cultures of Latin America	3	HIST R150	World History I	3
or SPAN R236H	Honors: Cultures of Latin America		or HIST R150H	Honors: World History I	
THTR R111	Introduction to Theatre	3	HIST R160	World History II	3
			or HIST R160H	Honors: World History II	
<b>Area 4 Social and Behavioral Science: Select one course</b>					
ADS/PSY R131	Abnormal Psychology	3	POLS R101	Government of the United States I: Institutions and Politics	3
ANTH R102	Introduction to Cultural Anthropology	3	POLS R102	Introduction to Law and Society	3
or ANTH R102H	Honors: Introduction to Cultural Anthropology		POLS R104	Introduction to International Relations	3
ANTH R103	Introduction to Archaeology	3	POLS R108	Comparative Politics	3
ANTH R105	Sex, Gender and Culture	3	POLS R120	Political Theory	3
ANTH/ETHS R107	The Anthropology of Native Americans	3	POLS R125	U.S. Foreign Policy and Covert Action	3
ANTH R110	People of the World: The Cultures of Globalization and Change	3	or POLS R125H	Honors: U.S. Foreign Policy and Covert Action	
ANTH R111	Magic, Witchcraft and Religion: Anthropology of Belief	3	PSY R101	General Psychology (or)	3
or ANTH R111H	Honors: Magic, Witchcraft and Religion: Anthropology of Belief		PSY R101H	Honors: General Psychology	3
ANTH R113	Ancient Civilizations of the Americas	3	PSY R104	Research Methods in Psychology	3
ANTH/ETHS R114	African American Culture and Experience	3	PSY R108	Developmental Psychology	3
ANTH R115	Introduction to Language and Culture	3	PSY R110	Human Sexuality	3
ANTH/ETHS R119/ BRS R101	Introduction to Border Studies	3	SJS/ETHS R110	Introduction to Social Justice Studies	3
ASL R110	Introduction to Deaf Studies	3	SJS R120	Introduction to Women's Studies	3
CHST R101	Introduction to Chicana/o Studies	3	SJS R130	Introduction to LGBTQ Studies	3
CHST R102	Chicana/o Cultural Identity	3			
CHST/HIST R107	History of Mexicans in the United States	3			

SOC R101	Introduction to Sociology	3
or SOC R101H	Honors: Introduction to Sociology	
SOC R102	Social Problems	3
SOC R103	Race and Ethnic Relations	3
SOC R106	Contemporary Family in American Society	3
SOC R111	Introduction to Social Research	3
SOC R116	Crime and Society	3
SOC R119	Introduction to Social Work and Human Services	3
URBS R101	Introduction to Urban Studies	3
<b>Area 5B Biological Science: Select one course</b>		
ANAT R101	General Human Anatomy	4
ANTH R101	Introduction to Biological Anthropology	3
or ANTH R101H	Honors: Introduction to Biological Anthropology	
BIOL R100	Marine Biology	3
BIOL R101	General Biology	3
or BIOL R101H	Honors: General Biology	
BIOL R120	Principles of Biology I	4
BIOL R122	Principles of Biology II	4
BIOL R155	Principles of Botany	3
ESRM R100	Introduction to Environmental Science	3
MICR R100	Principles of Microbiology	3
MST R100	Marine Biology	3
PHSO R101	Human Physiology	5
PSY R105	Introduction to Physiological Psychology	3
<b>Area 6 Language Other than English</b>		<b>0-4</b>
ASL R101	American Sign Language 1	4
ASL R102	American Sign Language 2	4
ASL R103	American Sign Language 3	4
ASL R104	American Sign Language 4	4
SPAN R200	Intermediate Spanish I	4
SPAN R210	Intermediate Spanish II	4
SPAN R220	Spanish for Heritage Speakers I	4
or SPAN R220H	Honors: Spanish for Heritage Speakers I	
SPAN R230	Spanish for Heritage Speakers II	4
or SPAN R230H	Honors: Spanish for Heritage Speakers II	
<b>Total Units for the Major:</b>		<b>53</b>
IGETC		20
IGETC Electives		0
<b>Total Units for Degree</b>		<b>73</b>

Upon successful completion of this program, students will be able to:

- Conduct experiments, analyze data, and interpret results, while observing responsible and ethical scientific conduct.
- Demonstrate an understanding of major concepts, theoretical principles and experimental findings in chemistry.
- Be prepared to transfer to a university or enter allied health programs.
- Demonstrate a foundational knowledge of general principles of chemistry and be able to apply this knowledge to the solution of problems and performance of experiments.
- Demonstrate proficiency in the use of appropriate instrumentation to collect and record data from chemical experiments.

- Use critical thinking and efficient problem-solving skills in the four basic areas of chemistry: analytical, inorganic, organic, and physical.
- Use modern instrumentation for chemical analysis.