



# California State University Channel Islands

## Bachelor of Science

# CHEMISTRY

### Advisement Form 2007-2008

Name \_\_\_\_\_ ID \_\_\_\_\_

The BS in Chemistry major consists of 70 units. 120 minimum units are required for graduation.

Chemistry Curriculum	Inst.	Course	Units	Grade	Term	Prerequisites, GE & comments
<b>Lower Division Requirements (28 units)</b>						
<b>Chemistry (12 units)</b>						
CHEM 121 General Chemistry I <i>(must receive a "C" or better)</i>	4					Prereq: CHEM 105 or 1 year high school chemistry; GE: B1
CHEM 122 General Chemistry II <i>(must receive a "C" or better)</i>	4					Prereq: CHEM 121; GE: B1
CHEM 250 Quantitative Analysis	2					Prereq: CHEM 122 Co-requisite: CHEM 251
CHEM 251 Quantitative Analysis Laboratory	2					Prereq: CHEM 122 Co-requisite CHEM 250
<b>Math (8 units)</b>						
MATH 150 Calculus I	4					Prereq: Passing scores on the Calculus Placement Exam or MATH 105; GE: B3
MATH 151 Calculus II	4					Prereq: MATH 150
<b>Physics (8 units)</b>						
PHYS 100 Introduction to Physics I <b>OR</b> PHYS 200 General Physics I	4					PHYS 200 Prereq: MATH 150; GE: B1
<b>AND</b>						
PHYS 101 Introduction to Physics II <b>OR</b> PHYS 201 General Physics II	4					PHYS 101 Prereq: PHYS 100; PHYS 201 Prereq: Prereq: PHYS 200; GE: B1
<b>Upper Division Requirements ( 42 units)</b>						
<b>Upper Division Chemistry Requirements ( 20 Units)</b>						
CHEM 305 Computer Applications in Chemistry	1					Prereq: CHEM 122; GE: B4
CHEM 311 Organic Chemistry I <i>(must receive a "C" or better)</i>	3					Prereq: CHEM 122
CHEM 312 Organic Chemistry I Lab <i>(must receive a "C" or better)</i>	1					Prereq: CHEM 311 or taken concurrently
CHEM 314 Organic Chemistry II <i>(must receive a "C" or better)</i>	3					Prereq: CHEM 311
CHEM 315 Organic Chemistry II Laboratory	1					Prereq: CHEM 311, 312 and 314 or taken concurrently
CHEM 371 Physical Chemistry I	3					Prereq: CHEM 122, MATH 150; PHYS 101 <b>or</b> PHYS 201
CHEM 372 Physical Chemistry Laboratory	1					Prereq: CHEM 371 or taken concurrently
CHEM 460 Biochemistry I	4					Prereq: CHEM 314
CHEM 492 Internship/Service Learning <b>OR</b> CHEM 494 Independent Research	2					Prereq: Consent of instructor
CHEM 499 Chemistry Capstone Colloquium	1					Prereq: CHEM 305, CHEM 371 and CHEM 492 <b>or</b> CHEM 494 or concurrent enrollment. Granted Credit/No Credit.

		Instit.	Course	Units	Grade	Term	Prerequisites, GE & comments
<b>Upper Division Elective Requirements (22 units)</b>							
A total of 22 units of electives excluding courses 330-349 and 430-449, and including a minimum of <i>three</i> laboratory courses. Two units of Chemistry Learning Community courses (CHEM 313 and 316) may be used as electives. *No more than a combined total of 4 units of CHEM 492, 494, and 497 may be applied as electives. <i>Select from the following:</i>							
CHEM 301 Environmental Chemistry	3						Prereq: CHEM 122
CHEM 313 Organic Chemistry I Learning Community	1						Co-requisite: CHEM 311
CHEM 316 Organic Chemistry II Learning Community	1						Co-requisite: CHEM 314
CHEM 373 Physical Chemistry II	3						Prereq: CHEM 122 and PHYS 101 or PHYS 201 and MATH 150
CHEM 410 Advanced Organic Synthesis	4						Prereq: CHEM 305 or concurrent enrollment, CHEM 314 and CHEM 315 or consent of instructor
CHEM 415 Molecular Structure Determination	4						Prereq: CHEM 305 or concurrent enrollment, CHEM 314 and CHEM 315 or consent of instructor
CHEM 450 Instrumental Analysis and Laboratory	4						Prereq: CHEM 250, CHEM 251, CHEM 305 or concurrent enrollment or consent of instructor and CHEM 315. All Prereq. with a grade of "C" or better
CHEM 461 Biochemistry II	4						Prereq: CHEM 305 or concurrent enrollment, CHEM 460. All prereqs. with a grade of "C" or better
CHEM 465 Bioinorganic Chemistry	4						Prereq: CHEM 305 or concurrent enrollment, CHEM 314. All prereqs. with a grade of "C" or better
CHEM 490 Special Topics in Chemistry	1-3						Prereq: Consent of instructor Repeatable by topic.
CHEM 492 Internship/Service Learning	1-3						Prereq: Consent of instructor Repeatable*
CHEM 494 Independent Research	1-3						Prereq: Consent of instructor Repeatable*
CHEM 497 Directed Studies	1-3						Prereq: Consent of instructor Repeatable*

### Additional University Graduation Requirements

#### 9 Units Upper Division Interdisciplinary GE at CSUCI (courses numbered 330-349 or 430-449)

Course 1 (in major) \_\_\_\_\_ Course 2 (in major) \_\_\_\_\_ Course 3 (outside of major) \_\_\_\_\_  
(Choose from GE A-E)

**American Institutions Requirements:** US History \_\_\_\_\_ State and Local Gov't \_\_\_\_\_ POLS 150 \_\_\_\_\_  
(Choose from HIST 270, 271, 272, 275 or 350)

*Students must receive a grade of "C" or better in the language and Multicultural Requirements*

**Language Requirement:** GE C3a \_\_\_\_\_  
(one semester of college level language)

**Multicultural Requirement:** GE C3b \_\_\_\_\_

*Minimum total units to graduate: 120 of which 40 must be upper division. Please see catalog for a complete list of graduation requirements.*

Advisor \_\_\_\_\_ Date Completed: \_\_\_\_\_

Advisor Comments: \_\_\_\_\_