



California State University Channel Islands

Bachelor of Science in Chemistry

Biochemistry Option

Advisement Form 2010-2011

Name _____ ID _____

Students must obtain a grade of C or better in these courses to apply them to the chemistry major

Chemistry Curriculum	Un.	Instit.	Course	Units	Grade	Term	Prerequisites, GE & Comments
Lower Division Requirements (36 units)							
Chemistry							
CHEM 121 General Chemistry I	4						Prereq: Passing score on CHEM placement exam or CHEM 105; GE: B1
CHEM 122 General Chemistry II	4						Prereq: CHEM 121 with a C or better; GE: B1
CHEM 250 Quantitative Analysis	3						Prereq: CHEM 122 with a C or better; Corequisite: CHEM 251
CHEM 251 Quantitative Analysis Laboratory	1						Prereq: CHEM 122 with a C or better; Corequisite: CHEM 250
Biology							
BIOL 200 Principles of Organismal and Population Biology	4						GE: B2
BIOL 201 Principles of Cell and Molecular Biology	4						Prereq: CHEM 105 or 121; GE: B2
Math							
MATH 150 Calculus I	4						Prereq: Passing score on the Calculus Placement Exam or MATH 105; GE: B3
MATH 151 Calculus II	4						Prereq: MATH 150
Physics							
PHYS 100 Introduction to Physics I or PHYS 200 General Physics I	4						GE: B1 Prereq: MATH 150; GE: B1
PHYS 101 Introduction to Physics II or PHYS 201 General Physics II	4						Prereq: PHYS 100; GE: B1 Prereq: PHYS 200; GE: B1
Total Upper Division Requirements (34 units)							
Chemistry Core Courses (23 units)							
CHEM 305 Computer Applications in Chemistry	1						Prereq: CHEM 122 with a C or better; GE: B4
CHEM 311 Organic Chemistry I	3						Prereq: CHEM 122 with a C or better
CHEM 312 Organic Chemistry I Lab	1						Prereq: CHEM 311 (or taken concurrently) with a C or better
CHEM 314 Organic Chemistry II	3						Prereq: CHEM 311 with a C or better
CHEM 315 Organic Chemistry II Lab	1						Prereq: CHEM 311, 312, & 314 (or taken concurrently) all with C's or better
CHEM 371 Physical Chemistry I	3						Prereq: CHEM 122 with a C or better, PHYS 101 or 201, & MATH 150
CHEM 372 Physical Chemistry Laboratory	1						Prereq: CHEM 371 or taken concurrently
CHEM 460 Biochemistry I	4						Prereq: CHEM 314 with a C or better
CHEM 461 Biochemistry II	4						Prereq: CHEM 305 (or concurrent enrollment) & CHEM 460 with a C or better or consent of instructor

Upper Division Requirements, cont.	Un.	Instit.	Course	Units	Grade	Term	Prerequisites, GE & Comments
CHEM 499 Chemistry Capstone	2						Prereq: CHEM 305 & 371
Biology (8 units)							
BIOL 300 Cell Biology	4						Prereq: BIOL 201 with a C or better & CHEM 122
BIOL 400 Molecular Biology	4						Prereq: BIOL 300 or 302 with a C or better
Upper Division Chemistry Electives (3 units)							
<i>A total of <u>three</u> units of electives from those listed below are needed. Lab courses are denoted^L.</i>							
CHEM 301 Environmental Chemistry – Atmosphere and Climate	3						Prereq: CHEM 122 with a C or better
CHEM 302 Environmental Chemistry – Soil and Water ^L	4						Prereq: CHEM 122 with a C or better
CHEM 313 Organic Chemistry I Problem Solving	1						Coreq: CHEM 311
CHEM 316 Organic Chemistry II Problem Solving	1						Coreq: CHEM 314
CHEM/HIST 330 The History of Science: Non-Western Origins and the Western Revolution ¹	3						GE: B1, UDIGE
CHEM 335 The Chemistry of the Kitchen ¹	3						GE: B1, UDIGE
CHEM/BUS/ECON 341 Drug Discovery and Development ¹	3						GE: B1, D, UDIGE
CHEM 343 Forensic Science ^{L,1}	3						GE: B1, UDIGE
CHEM/PHYS 344 Energy and Society ¹	3						GE: B1, UDIGE
CHEM 373 Physical Chemistry II	3						Prereq: CHEM 122 with a C or better, PHYS 101 or 201, & MATH 150
CHEM 410 Advanced Organic Synthesis ^L	4						Prereq: CHEM 305 (or concurrent enrollment), CHEM 314, & 315 or consent of instructor
CHEM 415 Molecular Structure Determination ^L	4						Prereq: CHEM 305 (or concurrent enrollment), CHEM 314, & 315 or consent of instructor
CHEM 420 Advanced Inorganic Chemistry	3						Prereq: CHEM 314 & 371
CHEM 450 Instrumental Analysis and Laboratory ^L	4						Prereq: CHEM 250, 251, 305 (or concurrent enrollment or consent of instructor), & 315 with a C or better
CHEM 465 Bioinorganic Chemistry ^L	4						Prereq: CHEM 305 (or concurrent enrollment) & CHEM 314 with a C or better or consent of instructor
CHEM 490 Special Topics in Chemistry	1-3						Prereq: Consent of instructor; Repeatable by topic.
CHEM 491 Special Laboratory Topics in Chemistry ^L	1-3						Prereq: Consent of instructor; Repeatable by topic.
CHEM 492 Internship/Service Learning ^{L,R}	1-3						Prereq: Consent of instructor; Repeatable
CHEM 494 Independent Research ^{L,R}	1-3						Prereq: Consent of instructor; Repeatable
CHEM 497 Directed Studies ^R	1-3						Prereq: Consent of instructor; Repeatable
¹ Upper division interdisciplinary GE credit (CHEM 330-349 or CHEM 440-449) may be applied as chemistry electives towards the degree. For students pursuing an advanced degree, it is not recommended to choose interdisciplinary courses as chemistry electives. ^R No more than a combined total of <u>six</u> units of CHEM 492, 494, and 497 may be applied as electives. No more than <u>one</u> CHEM 492 or 494 may be (by petition) considered a laboratory elective.							

Additional University Graduation Requirements

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

Upper division standing or instructor consent required for these courses

Course 1 _____ Course 2 _____ Course 3 _____
(may choose 330, 335, 341, 343 or 344) (outside major)

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

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: _____
