



California State University Channel Islands

Bachelor of Science

BIOLOGY: Medical Imaging Emphasis

Advisement Form 2007-2008

Name _____ ID _____

B.S. in Biology with Medical Imaging Emphasis is 81 units. 120 minimum units are required for graduation.

Lower Division Major Requirements (16 units)		Instit.	Course	Units	Grade	Term	Prerequisites, GE & comments
BIOL 200 Principles of Organismal and Population Biology	4						GE: B2
BIOL 201 Principles of Cell and Molecular Biology <i>Must receive grade of C or better</i>	4						Prereq: CHEM 105 or 121; GE: B2
BIOL 210 Human Anatomy and Physiology I	4						
BIOL 211 Human Anatomy and Physiology II	4						Prereq: BIOL 210
Required Supporting Courses (27 units)							
Chemistry (15 units) <i>An Organic Chemistry I equivalent course with laboratory taken at a community college may be accepted in lieu of CHEM 311 and 312.</i>							
CHEM 121 General Chemistry I <i>Must receive grade of C or better</i>	4						Prereq: 1 year high school chemistry or CHEM 105; GE: B1
CHEM 122 General Chemistry II <i>Must receive grade of C or better</i>	4						Prereq: CHEM 121; GE: B1
CHEM 311 Organic Chemistry I <i>Must receive grade of C or better</i>	3						Prereq: CHEM 122
CHEM 312 Organic Chemistry I Lab <i>Must receive grade of C or better</i>	1						Prereq: CHEM 311 (or taken concurrently)
CHEM 318 Biological Chemistry	3						Prereq: CHEM 311 with a grade of C or better
Mathematics (4 units)							
MATH 150 Calculus I	4						Prereq: A passing score on the Calculus Placement Exam or MATH 105; GE: B3
Physics (8 units)							
Select either							
PHYS 100 Introduction to Physics I	4						GE: B1
PHYS 101 Introduction to Physics II	4						Prereq: PHYS 100; GE: B1
Or							
PHYS 200 General Physics I	4						Prereq: MATH 150; GE: B1
PHYS 201 General Physics II	4						Prereq: PHYS 200; GE: B1
Upper Division Major Requirements (38 units)							
Biology (30 Units)							
BIOL 300 Cell Biology <i>Must receive grade of C or better</i>	4						Prereq: BIOL 201 with a grade of C or better & CHEM 122
BIOL 301 Microbiology	4						Prereq: BIOL 201 with a grade of C or better & CHEM 122
BIOL 302 Genetics <i>Must receive grade of C or better</i>	4						Prereq: BIOL 201 with a grade of C or better & CHEM 122
BIOL 400 Molecular Biology	4						Prereq: BIOL 300 or 302 with a grade of C or better
BIOL/PHYS 416 Radiobiology and Radionuclides	3						Prereq: PHYS 201 and BIOL 300
BIOL/PHYS/HLTH 434 Introduction to Biomedical Imaging	4						Prereq: BIOL 210 or PHYS 200; GE: B1, E & INTD
BIOL/PHYS 464 Medical Instrumentation	4						Prereq: PHYS/BIOL/HLTH 434
BIOL 499 Senior Capstone in Biology	3						Prereq: Consent of instructor

		Instit.	Course	Units	Grade	Term	Prerequisites, GE & comments
Biology and Physics Electives (8 units)							
BIOL/PHYS 315 Introduction to Biophysics	4						Prereq: PHYS 200; Coreq: BIOL 300
BIOL 401 Biotechnology & Recombinant DNA Techniques	5						Prereq: BIOL 400 with a grade of C or better
BIOL 420 Cellular & Molecular Immunology	4						Prereq: BIOL 300 with a grade of C or better and CHEM 122
BIOL 421 Virology	3						Prereq: BIOL 301 with a grade of C or better and CHEM 122
BIOL 423 Cellular & Molecular Neurobiology	3						Prereq: BIOL 300 with a grade of C or better and CHEM 122
BIOL 424 Human Physiology	3						Prereq: BIOL 300 with a grade of C or better & CHEM 122
BIOL 425 Human Genetics	3						Prereq: BIOL 300 and BIOL 302 with grades of C or better & CHEM 122
BIOL 427 Developmental Biology	4						Prereq: BIOL 300 with a grade of C or better & CHEM 122
BIOL 428 Biology of Cancer	3						Prereq: BIOL 300 with a grade of C or better & CHEM 122
BIOL 431 Bioinformatics	4						Prereq: BIOL 302 with a grade of C or better; GE: B2, B4 & INTD
BIOL 432 Principles of Epidemiology & Environmental Health	3						Prereq: BIOL 201 with a grade of C or better & CHEM 122; GE: B2, D, INTD
BIOL 433 Ecology & the Environment	4						Prereq: BIOL 200; GE: B2, INTD
PHYS/COMP/MATH 445 Image Analysis and Pattern Recognition	3						Prereq: PHYS/COMP/MATH 345 or consent of the instructor; GE: B1, B4, INTD
<i>No more than 3 units taken from the following will count towards Biology electives:</i>							
PHYS 492 Physics Internship	3						Prereq: Upper division standing and consent of instructor
BIOL <i>or</i> PHYS 494 Independent Research	1-3						Prereq: Senior standing, consent of instructor, and program approval
BIOL <i>or</i> PHYS 497 Directed Study	1-3						Prereq: Senior standing, consent of the instructor and program approval

Additional University Graduation Requirements

9 Units Upper Division Interdisciplinary GE at CSUCI (courses numbered 330-349 or 430-449)	
Course 1 (in major) <u>BIOL 434</u>	Course 2 (in major) _____ (may choose BIOL 431, 432, 433 or PHYS 445)
Course 3 (outside of major) _____	(Choose from GE A-E)
American Institutions Requirements: US History _____ State and Local Gov't <u>POLS 150</u> (Choose from HIST 270, 271, 272, 275 or 350)	
<i>Students must receive a grade of C or better in the language and Multicultural Requirements</i>	
Language Requirement: GE C3a _____ (one semester of college level language)	
Multicultural Requirement: GE C3b _____	
<i>Minimum total units to graduate: 120 of which 40 must be upper division. Please see catalog for a complete list of graduation requirements.</i>	
Advisor _____	Date Completed: _____
Advisor Comments: _____ _____	