



Bachelor of Science BIOLOGY: Medical Imaging Emphasis

Advisement Form 2010-2011

Name _____ ID _____

Lower Division Major Requirements (16 units)	Un.	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	4						Prereq: CHEM 105 or 121; GE: B2
BIOL 210 Human Anatomy & Physiology I	4						
BIOL 211 Human Anatomy & Physiology II	4						Prereq: BIOL 210
Required Supporting Courses							
Chemistry (15 units)							
<i>An Organic Chemistry I equivalent course with lab taken at a community college may be accepted in lieu of CHEM 311 and 312.</i>							
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 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 318 Biological Chemistry	3						Prereq: CHEM 311 with a C or better
Mathematics (4 units)							
MATH 150 Calculus I	4						Prereq: Passing score on the Calculus Placement Exam or MATH 105; GE: B3
Physics (8 units)							
<i>Select <u>one</u> of the following series:</i>							
PHYS 100 Introduction to Physics I <i>and</i> PHYS 101 Introduction to Physics II	4 4						GE: B1 Prereq: PHYS 100; GE: B1
PHYS 200 General Physics I <i>and</i> PHYS 201 General Physics II	4 4						Prereq: MATH 150; GE: B1 Prereq: PHYS 200; GE: B1
Upper Division Major Requirements (38 units)							
Biology (30 Units)							
BIOL 300 Cell Biology	4						Prereq: BIOL 201 with a C or better & CHEM 122
BIOL 301 Microbiology	4						Prereq: BIOL 201 with a C or better & CHEM 122
BIOL 302 Genetics	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
BIOL/PHYS 416 Radiobiology and Radionuclides	3						Prereq: PHYS 201, BIOL 300, & BIOL/PHYS/HLTH 434
BIOL/PHYS/HLTH 434 Introduction to Biomedical Imaging	4						Prereq: BIOL 210 or PHYS 200; GE: B1, E, UDIGE
BIOL/PHYS 464 Medical Instrumentation	4						Prereq: PHYS/BIOL/HLTH 434
BIOL 499 Senior Capstone in Biology	3						Prereq: Consent of instructor

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

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 (in major) BIOL 434 Course 2 (in major) _____
(may choose BIOL 431, 432, 433 or PHYS 445) Course 3 _____
(outside major)

American Institutions Requirements: US History _____ State and Local Gov't _____
(choose from 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 Comments: _____