



California State University Channel Islands

**Bachelor of Arts
TMC – BIOLOGY**

Students intending to graduate within the unit restrictions outlined in the TMC program cannot complete more than 60 units at CI.

Advisement Form 2015-2016 (For students completing the Biology AS-T degree; BIOL BS at CI not available for TMC)

NOTE: Choosing courses with prerequisites, not already required in the major, may cause the major to exceed the 60 unit at CI.

Name _____ ID _____

Lower Division Major Requirements (8 units)	Un.	Course	Units	Grade	Term	Prerequisites, GE and Comments
BIOL 200 Principles of Organismal and Population Biology	4					GE: B2
BIOL 201 Principles of Cell and Molecular Biology (C-ID BIOL 190)	4	AS-T				Prereq: CHEM 105 or 121; GE: B2 (AS-T requirement)
Required Supporting Courses (11-12 units)						
Chemistry (8 units)						
CHEM 121 General Chemistry I (C-ID CHEM 120S)	4	AS-T				Prereq: Passing grade on the Chemistry Placement Exam or CHEM 105 with a grade of C or better. Students who have taken CHEM 105 at a campus other than CSUCI must also pass the Chemistry Placement Exam. GE: B1 (AS-T requirement)
CHEM 122 General Chemistry II (C-ID CHEM 120S)	4	AS-T				Prereq: CHEM 121 with a C or better; GE: B1 (AS-T requirement)
Mathematics and Statistics (3-4 units) Select <u>one</u> of the following:						
BIOL 203 Quantitative Methods for Biology	3					Prereq: A passing score on ELM or MATH 105 or equivalent; GE: B3 or B4
MATH 105 Pre-Calculus	4					Prereq: A passing score on the ELM; GE: B3
MATH 150 Calculus I (C-ID MATH 210 or 211)	4	AS-T				Prereq: A passing score on the Calculus Placement Exam or MATH 105; GE: B3 (AS-T requirement)
Upper Division Requirements in the Major (36 units)						
Required Biology Courses (14 Units)						
BIOL 300 Cell Biology	4					Prereq: BIOL 201 with a C or better and CHEM 122
BIOL 302 Genetics	4					Prereq: BIOL 201 with a C or better and CHEM 122
BIOL 303 Evolutionary Biology	3					Prereq: BIOL 200 & 201
BIOL 499 Senior Capstone in Biology	3					Prereq: Consent of Instructor
Electives in Biology (22 units) Select approved biology courses from 300 and 400 levels, two of which must be lab courses. (No more than 2 units of BIOL 492, 494, or 497 can be counted as electives.)						
BIOL 301 Microbiology	4					Prereq: BIOL 201 with a grade of C or better and CHEM 122
BIOL 304 Comparative Animal Physiology	3					Prereq: BIOL 200 and BIOL 201
BIOL 310 - Vertebrate Biology	4					Prereq: BIOL 200
BIOL 311 - Plant Biology	4					Prereq: BIOL 200 or Consent of Instructor
BIOL 312 Marine Biology	4					Prereq: BIOL 200
BIOL/ESRM 313 Conservation Biology	4					Prereq: BIOL 200
BIOL/PHYS 315 Introduction to Biophysics	4					Prereq: PHYS 200 Corequisite: BIOL 300
BIOL 316 Invertebrate Zoology	4					Prereq: BIOL 200
BIOL 317 Parasitology	4					Prereq: BIOL 200
BIOL 318 Medical Mycology	4					Prereq: BIOL 200
BIOL 319 Plant Systematics and Identification	4					Prereq: BIOL 200

Electives, cont.	Un.	Course	Units	Grade	Term	Prerequisites, GE and Comments
BIOL 320 Deep-Sea Biology and Ecology	3					Prereq: BIOL 200
BIOL 335 The Biosphere	3					Prereq: Junior standing or consent of instructor; GE: B2, UDIGE
BIOL/POLS 345 Science and Public Policy						Prereq: Junior standing or consent of instructor; GE: D, UDIGE
BIOL/ART 389 The Science of Art and the Art of Science	3					Prereq: ART 108 or BIOL 200 or consent of instructor
BIOL 400 Molecular Biology	4					Prereq: BIOL 300 or BIOL 302 with a grade of C or better
BIOL 401 - Biotechnology and Recombinant DNA Techniques	5					Prereq: BIOL 400 with a grade of C or better
BIOL 406 - Evolutionary Biogeography	3					Prereq: BIOL 303
BIOL 407 - Behavioral Ecology						Prereq: BIOL 200
BIOL/PHYS 416 Radiobiology and Radionuclides	3					Prereq: BIOL 300, 434, PHYS 201
BIOL 420 Cellular and Molecular Immunology	4					Prereq: BIOL 300 with a grade of C or better and CHEM 122
BIOL 421 Virology						Prereq: BIOL 300 with a grade of C or better and CHEM 122
BIOL 422 Plant Physiology	4					Prereq: BIOL 300 with a grade of C or better
BIOL 423 Cellular and 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 better and CHEM 122
BIOL 425 Human Genetics	3					Prereq: BIOL 300 and BIOL 302 with grades of C or better and CHEM 122
BIOL 426 Hematology	4					Prereq: BIOL 300
BIOL 427 Developmental Biology	4					Prereq: BIOL 300 with a grade of C or better and CHEM 122
BIOL 428 Biology of Cancer	3					Prereq: BIOL 300 with a grade of C or better and CHEM 122
BIOL 431 Bioinformatics	4					Prereq: BIOL 302 with a grade of C or better; GE: B2, B4, UDIGE
BIOL 432 Principles of Epidemiology and Environmental Health	3					Prereq: BIOL 201 with a grade of C or better and CHEM 122 ; GE: B2, UDIGE
BIOL 433 Ecology and the Environment	4					Prereq.: BIOL 200; GE: B2, UDIGE
BIOL/HLTH/PHYS 434 Introduction to Biomedical Imaging	4					Prereq: BIOL 210 or PHYS 200; GE: B1, E, UDIGE
BIOL 435 Ethnobotany	3					Prereq: BIOL 200, Junior standing or consent of instructor; GE: B2, UDIGE
BIOL 450 Ichthyology: The Biology of Fishes	4					Prereq: BIOL 200
BIOL 451 Ornithology	4					Prereq: BIOL 200, BIOL 201
BIOL 452 Entomology	4					Prereq: BIOL 200
BIOL 453 Methods in Population and Community Ecology	4					Prereq: BIOL 200, 203 and MATH 150
BIOL/PHYS 464 Medical Instrumentation	4					Prereq: BIOL 434
BIOL 470 Plant Pathology	4					Prereq: BIOL 300
BIOL 471 Soil Science	4					Prereq: BIOL 201 and CHEM 122
BIOL 473 Sustainable Agriculture	4					Prereq: BIOL 200
BIOL 490 Special Topics	1-3					Prereq: Consent of instructor; <i>Repeatable by topic up to 6 units</i>

Electives, cont.	Un.	Course	Units	Grade	Term	Prerequisites, GE and Comments
<i>Students may count 3-4 units from the following courses towards the 22 units of electives. UNIV courses require Biology program approval.</i>						
CHEM 318 Biological Chemistry	3					Prereq: CHEM 311 with a grade of C or better
GEOL 121 Physical Geology	4					GE: B1
BIOL 122 Historical Geology	3					GE: B1
PHYS 100 Intro to Physics I	4					GE: B1
UNIV 391 United States Travel Study Experience	1-3					Repeatable up to 9 units
UNIV 392 International Experience	1-3					GE: C3b; Repeatable up to 6 units
UNIV 398 Advanced Research Investigations	3					GE: A3; Repeatable up to 6 units
UNIV 498 Faculty-Student Collaborative Research	3					Prereq: Consent of instructor; repeatable up to 9 units
<i>No more than 2 units taken from the following can be counted towards the 22 units of electives.</i>						
BIOL 492 Internship	2					Prereq: Consent of the instructor and program approval; Repeatable up to 6 units
BIOL 494 Independent Research	2					Prereq: Consent of the instructor and program approval; Repeatable up to 6 units
BIOL 497 Directed Study	2					Prereq: Consent of the instructor and program approval; Repeatable up to 6 units

Additional University Graduation Requirements (13 units) –sample assumes double counting for UDIGE (inside major) and multicultural requirement.

9 Units Upper Division Interdisciplinary GE (UDIGE) at CI (courses numbered 330-349 or 430-449)
C or better grade requirement. Upper division standing or instructor consent required for these courses

Course 1 _____ Course 2 _____ Course 3 (3 unit course) _____
 (may choose BIOL 335, 345, 431, 432, 433, 434 or 435) (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 (4 unit course) _____
 (one semester of college level language)

Multicultural Requirement: GE C3b _____

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

Free Electives (7 Units) Depending on the student's AA-T degree choices, additional free electives may be required to reach 120 units. Ensure enough free elective units are completed to meet the 40 unit upper division University requirement. For this example, one elective unit must be upper division and six units have been reserved for two IGETC GE courses if not completed at the CC.

Course	Units	Grade	Institution	Term	Comments