



SACRAMENTO
STATE

Course Change Proposal Form A



Academic Group (College): Natural Science & Mathematics	Academic Organization (Department): Biological Sciences	Date: March 15, 2008
Type of Course Proposal: New <input checked="" type="checkbox"/> Change <input type="checkbox"/> Deletion <input type="checkbox"/>	Department Chair: Nicholas Ewing	Submitted by: Adam Rechs
Does this course fulfill a requirement for single-subject or multiple subject credential students? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	For Catalog Copy: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> CCE (Extension): Yes <input type="checkbox"/> No <input type="checkbox"/>	Semester Effective: Fall <input checked="" type="checkbox"/> Spring <input type="checkbox"/> , 2008

This course replaces experimental course Subject Area (prefix) and Catalog Nbr (course number):

Change from:

Subject Area (prefix) & Catalog Nbr (course no.):	Title:	Units:
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Change to:

Subject Area (prefix) & Catalog Nbr (course no.): BIO 15L	Title: Laboratory Investigations in Biology	Units: 1.0
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JUSTIFICATION:

BIO 10 (designed as a lecture and laboratory course for majors and non-majors) is being revised to be a lecture-only general education (GE) course to serve only non-majors, with an increase in the breadth of the subject matter. In concert with this change is the proposed creation of BIO 15L, which is to serve as a stand-alone lower-division biology GE laboratory experience. By decoupling the laboratory from the introductory GE lecture, students gain added flexibility in both scheduling and their options for satisfying the Area B-2 and B-3 GE requirements. Additionally, BIO 15L will serve as a common laboratory experience for students who have completed (or are enrolled in) any of the three lower-division biology GE lecture courses (BIO 9, 10, or 20), further increasing the flexibility and options for students.

NEW COURSE DESCRIPTION: (Not to exceed 80 words, and language should conform to catalog copy. See <http://www.csus.edu/acaf/univmanual/crspsl.htm> - Guidelines for Catalog Course Description)

Introductory laboratory investigation of the major principles of biology, including properties of all living things, the unity and diversity of organisms, structure and function of cells, energy and metabolism, genetics, ecology, evolution, and the scientific methods of investigation employed by biologists. Laboratory three hours. **Prerequisite:** BIO 9, 10 or 20 or **Corequisite:** Bio 9, 10 or 20. One unit.

Note: Not open to Biological Sciences majors or students who have received credit for BIO 001 or 002.

Prerequisite: BIO 9, 10, or 20

Enforced at Registration: Yes No

Corequisite: BIO 9, 10 or 20

Enforced at Registration: Yes No

CAN (California Articulation Number):

Graded: Letter Credit/No Credit

Instructor Approval Required? Yes No

Course Classification (e.g., lecture, lab, seminar, discussion):

Laboratory, C-16

Title for CMS (not more than 30 characters)

Lab Investigations in Biology

Cross Listed?

Yes No

If yes, do they meet together and fulfill the same requirement, and what is the other course.

How Many Times Can This Course be Taken for Credit? once

Can the course be taken for Credit more than once during the same term? Yes No

FOR NEW COURSE PROPOSALS OR SUBSTANTIVE CHANGES ONLY:

Description of the Expected Learning Outcomes: Describe outcomes using the following format: "Students will be able to: 1), 2), etc." See the example at <http://www.csus.edu/acaf/example.htm>

Students should be able to:

1. Understand the relationship between structure and function at different levels of organization: molecular, cellular, organismal, population, community and ecosystem
2. Understand how populations grow and interact in a community (predation, competition, mutualism, etc.) and how matter cycles and energy flows within ecosystems
3. Appreciate how biochemical unity, the environment, and genetics influence biological diversity
4. Understand how similarities and differences among organisms form the basis for systematics and serve as a means of categorizing and naming organisms
5. Appreciate the impact of human activities on the biosphere
6. Understanding the cell as the basic unit of life, which require processes of energy transformation, growth and reproduction, and interactions in the environment
7. Understanding the nature and function of the gene, including the flow of genetic information within the cell
8. Understand the concept of evolution by natural selection and appreciate the importance of sexual reproduction in evolution
9. Understand the scientific method as well as current scientific tools and methodology (field and lab) the employed by biologists
10. Think critically about biology and appreciate how it applies to current social topics.
11. Gain skills in collaboration with colleagues and in communication (reading and writing) of biology.

**Attach a list of the required/recommended course readings and activities [Note: it is understood that these are updated and modified as needed by the instructor(s).] This attachment should be forwarded only to your Dean's office, not Academic Affairs.

Assessment Strategies: A description of the assessment strategies (e.g., portfolios, examinations, performances, pre-and post-tests, conferences with students, student papers) which will be used by the instructor to determine the extent to which students have achieved the learning outcomes noted above:

Student grades will be based on points earned from quizzes (45%), worksheets (30%), writing assignments (17%), and participation (8%).

For whom is this course being developed?

Majors in the Dept ___ Majors of other Depts ___ Minors in the Dept ___ General Education Other ___

Is this course required in a degree program (major, minor, graduate degree, certificate)? Yes ___ No ___

If yes, identify program(s):

Does the proposed change or addition cause a significant increase in the use of College or University resources (lab room, computer facilities, faculty, etc.)? Yes ___ No

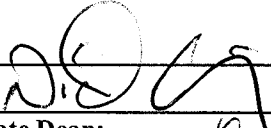
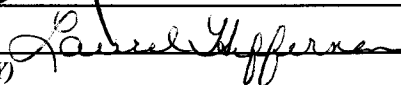
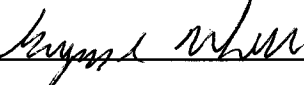
If yes, attach a description of resources needed and verify that resources are available.

Indicate which department or programs will be affected by the proposed course (if any). _____

The Department Chair's signature below indicates that affected programs have been sent a copy of this proposal form.

Approvals: If proposed change, new course or deletion is approved, sign and date below. If not approved, forward without signing to the next reviewing authority, and attach an explanatory memorandum to the original copy.

Signatures:

	Date
Department Chair: 	3/26/08
College Dean or Associate Dean: 	4/2/08
CPSP (for school personnel courses ONLY)	
Associate Vice President and Dean for Academic Programs: 	4-8-08

CONDITIONAL

APPROVAL

Distribution: Academic Affairs (original), Department Chair and College Dean. Dean's office to send original after approval to Academic Affairs, at mail zip 6016. An electronic copy must also be sent.