California Sate University Channel Islands

NEW COURSE PROPOSAL

Courses must be submitted by November 3, 2008, for priority catalog review.

DATE (*Change if modified and redate file with current date)*) 10-9-08 REV 11.17.08
PROGRAM AREA(S) BIOLOGY

1. Course Information. *[Follow accepted catalog format.]*

Prefix(es) (Add additional prefixes if cross-listed) **and Course No. BIOL513**
Title: CELL CULTURE FACILITY MANAGEMENT Units: 3
☒ Prerequisites BIOL510
☐ Corequisites
☒ Consent of Instructor Required for Enrollment
Catalog Description (Do not use any symbols): **Processes and procedures of managing a cell culture facility. Topics include biosafety standards, record keeping, database organization, personnel management, inventory administration, storage of laboratory reagents and supplies, cell line banking and maintenance, equipment selection and maintenance, and essential concepts for troubleshooting common cell culture problems.**

Grading Scheme:
☒ A-F Grades
☐ Credit/No Credit
☐ Optional (Student Choice)

Repeatability:
☐ Repeatable for a maximum of units
Total Completions Allowed
☐ Multiple Enrollment in Same Semester

Course Level Information:
☐ Undergraduate
☐ Post-Baccalaureate/Credential
☒ Graduate

Mode of Instruction/Components (*Hours per Unit are defaulted*).

	Units	Hours per Unit	Benchmark Enrollment	Graded Component	CS & HEGIS # (Filled in by the Dean)
Lecture	3	1	15	☒	
Seminar				☐	
Laboratory				☐	
Activity				☐	
Field Studies				☐	
Indep Study				☐	
Other Blank				☐	

Leave the following hours per week areas blank. The hours per week will be filled out for you.
3 hours lecture per week
hours blank per week

2. Course Attributes:

☐ **General Education Categories**: All courses with GE category notations (including deletions) must be submitted to the GE website: http://summit.csuci.edu/geapproval. Upon completion, the GE Committee will forward your documents to the Curriculum Committee for further processing.

A (English Language, Communication, Critical Thinking)
☐ A-1 Oral Communication
☐ A-2 English Writing
☐ A-3 Critical Thinking

B (Mathematics, Sciences & Technology)
☐ B-1 Physical Sciences
☐ B-2 Life Sciences – Biology
☐ B-3 Mathematics – Mathematics and Applications
☐ B-4 Computers and Information Technology

C (Fine Arts, Literature, Languages & Cultures)
☐ C-1 Art
☐ C-2 Literature Courses

☐ C-3a Language
☐ C-3b Multicultural
☐ **D (Social Perspectives)**
☐ **E (Human Psychological and Physiological Perspectives)**
☐ **UDIGE/INTD Interdisciplinary**
☐ **Meets University Writing Requirement**
☐ **Meets University Language Requirement**

☐ American Institutions, Title V Section 40404: ☐ Government ☐ US Constitution ☐ US History
Refer to website, Exec Order 405, for more information: http://senate.csuci.edu/comm/curriculum/resources.htm
☐ Service Learning Course (Approval from the Center for Community Engagement must be received before you can request this course attribute).

3. Justification and Requirements for the Course. (Make a brief statement to justify the need for the course)

A. Justification: This course is a required course for the MS in Biotechnology and Bioinformatics degree program with an emphasis in Stem Cell Technology and Laboratory Management. It is going to be offered through Extended Education as part of a self-supported program. The curriculum is designed to prepare students to meet the needs for scientific professionals trained in both stem cell technology and the management of stem cell laboratory facilities, which require a high level of expertise.

B. Degree Requirement: ☒ Requirement for the Major/Minor ☐ Elective for the Major/Minor **Note: Submit Program Modification if this course changes your program**.

4. Learning Objectives. (*List in numerical order*)

Upon completion of the course, the student will be able to:

1. Demonstrate an understanding of the basic principles in stem cell culture
2. Perform standard and specific stem cell-related laboratory procedures employed in academic, industry, and government laboratories
3. Develop comprehensive laboratory management strategies
4. Demonstrate skills in critical thinking, problem solving, project management, and team building
5. Devise methodologies for the successful establishment of a cell-culture facility.

5. Course Content in Outline Form. *[Be as brief as possible, but use as much space as necessary]*

1.Overview of tissue culture principles
2. Tissue culture facility (Design and layout of lab, Organization of equipment, Maintenance of equipment)
3. Cell culture (Cell culture techniques and maintenance of cell lines, Preparation of growth media, Ways to prevent contamination, SOPs and GLPs, QC of reagents, Storage and sterilization)
4. Lab supplies (Ordering of lab supplies, Contacting suppliers, Contact persons for contamination detection, Hood certification)
5. Biosafety (Setting rules for a tissue culture lab and providing written documentation, Waste disposal, Problem solving and troubleshooting)
6. Recordkeeping (Cataloguing, Tracking orders)
7. Personnel and leadership skills

Does this course content overlap with a course offered in your academic program? YES ☐ NO ☒
If YES, what course(s) and provide a justification of the overlap.

Does this course content overlap a course offered in another academic area? YES ☐ NO ☒
If YES, what course(s) and provide a justification of the overlap.

Overlapping courses require Chairs' signatures.

6. Cross-listed Courses (*Please note each prefix in item No. 1)*

A. List Cross-listed Courses (Signature of Academic Chair(s) of the other academic area(s) is required).
List each cross-listed prefix for the course:

B. Program responsible for staffing: Biology

7. References. *[Provide 3 - 5 references]*

1. Laboratory Management: Principles and Processes (Paperback);
by Denise Harmening; Prentice Hall; ISBN-10: 013019459X ; ISBN-13: 978-0130194596
2. Sigma Cell Culture Manual, 3rd Edition

8. Tenure Track Faculty Qualified to Teach This Course.

Biology faculty members

9. Requested Effective Date:
First semester offered: Fall 2009

10. New Resources Requested. YES ☐ NO ☒
If YES, list the resources needed.

A. Computer Needs (data processing, audio visual, broadcasting, other equipment, etc.)

B. Library Needs (streaming media, video hosting, databases, exhibit space, etc.)

C. Facility/Space/Transportation Needs

D. Lab Fee Requested (please refer to Dean's Office for additional processing) ☐ Yes ☐ No

E. Other

11. Will this new course alter any degree, credential, certificate, or minor in your program? YES ☒ NO ☐
If, YES attach a program update or program modification form for all programs affected.
Priority deadline for New Minors and Programs: October 6, 2008 of preceding year.
Priority deadline for Course Proposals and Modifications: November 3, 2008, of preceding year.
Last day to submit forms to be considered during the current academic year: April 15th.

Nitika Parmar 10/7/2008

Proposer of Course (Type in name. Signatures will be collected after Curriculum approval) Date

Approval Sheet

Program/Course:
If your course has a General Education Component or involves Center affiliation, the Center will also sign off during the approval process.

Multiple Chair fields are available for cross-listed courses.

Program Chair		
	Signature	Date
Program Chair		
	Signature	Date
Program Chair		
	Signature	Date
General Education Chair		
	Signature	Date
Center for International Affairs Director		
	Signature	Date
Center for Integrative Studies Director		
	Signature	Date
Center for Multicultural Engagement Director		
	Signature	Date
Center for Civic Engagement Director		
	Signature	Date
Curriculum Chair		
	Signature	Date
Dean of Faculty		
	Signature	Date