California State University Channel Islands

NEW COURSE PROPOSAL

Courses must be submitted by November 2, 2009, for priority catalog review.

DATE (Change if modified and redate file with current date) 10-1-09; REV 12.7.09
PROGRAM AREA(S) BIOLOGY

1. Course Information. [Follow accepted catalog format.]
Prefix(es) (Add additional prefixes if cross-listed) and Course No. BIOL 604
Title: Biotechnology Across National Boundaries Units: 2

x Consent of Instructor Required for Enrollment

Catalog Description (Do not use any symbols): Addresses international efforts in biotechnological innovation, education, global commercialization and impact of biotechnology. Explores collaborations among science, education, industry and government in the age of globalization, ethical standards, international law and regulation in biotechnology and inter- and cross-cultural issues in business operations. An optional element of this course is a field trip to international businesses and education systems.

Grading Scheme: Repeatability: Course Level Information:

- A-F Grades Repeatable for a maximum of units Undergraduate
- Credit/No Credit Total Completions Allowed Post-Baccalaureate/Credential
- Optional (Student Choice) Multiple Enrollment in Same Semester Graduate

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

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<tr>
<th></th>
<th>Hours per Unit</th>
<th>Benchmark Enrollment</th>
<th>Graded Component</th>
<th>CS &amp; HEGIS #</th>
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<tbody>
<tr>
<td>Lecture</td>
<td>2</td>
<td>1</td>
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<td>x</td>
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<tr>
<td>Seminar</td>
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<tr>
<td>Laboratory</td>
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<tr>
<td>Activity</td>
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<td>Field Studies</td>
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<td>Indep Study</td>
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<td>Other Blank</td>
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Leave the following hours per week areas blank. The hours per week will be filled out for you. 2 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
3. Justification and Requirements for the Course. (Make a brief statement to justify the need for the course)

A. Justification: BIOL 604 is a required course for the program. As witnessed by all, the world is changing and changing fast. Today, every educated person needs to be literate in world affairs. To emphasize the importance of internationalism in the program and to make our students globally competitive when they graduate from the program, intentional efforts are made to include international contents and experiences in the curriculum. BIOL 604, Biotechnology across National Boundaries, addresses this important need in the curriculum of our MS Biotechnology program. The course also offers an optional field trip for students to international businesses and education systems. The reason that this is an option is due to affordability of travel costs. The Program will offer scholarships to help students with financial challenge to defray the costs of the trip.

B. Degree Requirement: x Requirement for the Major/Minor

Note: Submit Program Modification if this course changes your program.

4. Learning Objectives. (List in numerical order. You may wish to use the following resource in utilizing measurable verbs: http://senate.csuci.edu/comm/curriculum/resources.htm)

Upon completion of the course, the student will be able to:
- Describe the international efforts in biotechnological innovation
- Summarize the impact of biotechnological innovations on medicine, agriculture and the environment
- Demonstrate their understanding of progress of biotechnological innovations in the world
- Explain and apply bioethical standards, international law and regulation in biotechnology
- Identify and analyze inter- and cross-cultural issues in business operations
- Engage in collaborations with colleagues in biotechnological effort in a global environment

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

- International efforts in biotechnological innovation
- Impact of biotechnological innovation on medicine
- Impact of biotechnological innovation on agriculture
- Impact of biotechnological innovation on the environment
- Biotechnology and Africa
- Biotechnology and Asia
- Biotechnology in North America and Europe
- Biotechnology in other parts of the world
- Biotechnology education in the world
- Global commercialization and impact of biotechnology
- Collaborations among science, education, industry and government in the age of globalization
- Bioethical standards, international law and regulation in biotechnology
- Inter- and cross-cultural issues in business operations.
- A field trip to international biotechnology businesses and education systems is an optional element of this course.
Does this course content overlap with a course offered in your academic program? Yes □ No x
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 x
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)*


8. **Tenure Track Faculty Qualified to Teach This Course.**

Biology faculty

9. **Requested Effective Date:**
First semester offered: Spring 2012

10. **New Resources Requested.** Yes □ No x
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 5, 2009 of preceding year.

Priority deadline for Course Proposals and Modifications: November 2, 2009, of preceding year.

Last day to submit forms to be considered during the current academic year: April 15th.

Ching-Hua Wang 10-6-09

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.

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<th>Chair Type</th>
<th>Signature</th>
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<td>General Education Chair</td>
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<td>Center for International Affairs Director</td>
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<td>Center for Civic Engagement Director</td>
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<td>Curriculum Chair</td>
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<td>Dean of Faculty</td>
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