

ACADEMIC POLICIES COMMITTEE

UNDERGRADUATE CURRICULAR PROPOSAL(S) PROCEDURES TO CHANGE 2012-2013 CATALOG (Approved by APC September 1, 2011)

NAME OF SCHOOL OR DEPARTMENT:
Biology

ACTION ITEMS/SUBSTANTIVE CHANGES INCLUDE: addition/deletion of courses, additions/deletions of a major, changes in degree requirements and changes in general education requirements.

I. List proposal(s) with a one line abstract (examples):

- Proposal I: To drop xx course from the xx major (concentration, minor), etc.
- Proposal II: To add xx course as a requirement to xx major (concentration, minor, etc.)
- Proposal III: To add or drop a major, minor, concentration, etc.
- Proposal IV: To add xx course to the General Education cluster.....

Proposal I: To drop BIO212, Organismal Biology, from the Environmental Biology minor.

Proposal II: To change the required lower division units from 18-19 units to 15-16 units and the upper division units from 7 units to 9 units in the Environmental Biology minor.

Proposal III: To add BIO211, Evolutionary and Ecological Systems, to the General Education cluster.

Proposal IV:

II. Rationale: Each proposal needs thorough explanations as to why the change is being suggested. Please answer the following questions in your rationale and include other appropriate reasons in this section.

1. How has assessment data informed the proposed change and how recently has your

department or school completed a program review? For example, have alumni, outside reviewers, etc., suggested improvements?

The Biology Dept. completed a program review in 2009, however the proposed changes are being driven by other factors:

Proposals I-II: There are not enough upper-division units in the Environmental Biology minor.

Proposal III: First, the Environmental Biology track of the Computational Science minor requires an appropriate GE Biology course. Second, since one of our freshman Biology courses (BIO210) is already listed as a GE course, it is appropriate for our other freshman course (BIO211) to also be listed as a GE course.

2. What are comparable universities and colleges doing?

Proposal I-II: Not applicable.

Proposal III: The rationale for the Computational Science minor is discussed in that APC proposal.

3. Is the change related to stipulations imposed by outside accrediting agencies (addressing standards, etc.)?

Proposal I-II: No.

Proposal III: No.

4. How does the proposed change relate to the mission of the university?

Proposal I-II: Not applicable.

Proposal III: BIO211 comprises a thorough introduction to Evolution, Ecology and Sustainability, the latter being a major concern in our stewardship of God's creation. We considered what we would like students to know for their future lives, and we decided that a thorough knowledge of evolutionary theory and of creation-care are the most essential issues, and also the ones we focus on for our other General Education courses. Thus, it is entirely appropriate that BIO211 would be able to fulfill a GE requirement.

5. How does the change accommodate the department or school's learning outcomes for the major, minor, concentration, etc.? For instance, does the change help balance out the curriculum, or does it fill in a missing gap that would help strengthen the program? Does it add breadth or depth, etc.?

Proposal I-II: The learning outcomes are met via other courses, and BIO212 is not a pre-requisite for any of the upper-division electives.

Proposal III: The learning outcomes for the Computational Science minor are discussed in that APC proposal.

6. What impact will it have on the size of the major, minor, etc.?

Proposal I-II: BIO212 was originally listed as an upper-division course in the minor, but we then changed it to a lower-division course in order to accept transfer credit from the community colleges. This change increased the lower-division units in the minor and decreased the upper-division units below the required 12. Since this situation is clearly unacceptable, and keeping BIO212 in the minor would cause it to be too large, we propose to remove BIO212 from the required courses. This will change the minor back to the way it was before. (Note that Spring, 2012, will actually be the first time that BIO212 is even taught.)

Proposal III: The main reason we propose that BIO211 be considered a GE course is so that students who are Computational Science minors with an Environmental Biology focus will be able to receive GE credit for taking BIO211, which is a pre-requisite for BIO360, Ecology. Instituting this change will keep the size of this minor at a reasonable number of units for these students. Additionally, at least half of the material in BIO211 overlaps with BIO102 or BIO105, so it wouldn't make sense to require students in this minor to take one of those GE courses in addition to BIO211.

Finally, if students leave the Biology, Biology-Chemistry, or Environmental Science major after one semester, then it is also appropriate that BIO211 should count as their GE requirement for a Life Science with a lab. The same is already true of BIO210, which is the other option that students take for their first semester in the major.

7. Will the change(s) be sustainable with human and financial resources?

Proposal I-II: No impact on human or financial resources.

Proposal III: We expect only a small increase in the number of students taking BIO211 as Computational Science minors, and thus the change should be sustainable.

We do not predict that the general population will choose this course to meet one of their GE requirements because 1) it is more difficult than the 100 level GE courses, and 2) the title of the course contains the word "Evolution" in it, which is an uncomfortable word for many students that are just looking for a course to fulfill a GE requirement. Although our other GE courses have significant amounts of evolutionary theory in them, this is not immediately apparent to the students by the title of the course. However, if a student from the general population wants to take the course (perhaps because they would like a better grasp of evolutionary theory), then we would welcome them into it!

8. State other rationale that you deem appropriate.

Proposal III: This change was discussed with the MICS and Chemistry Departments and they heartily approve.

III. Tentative Syllabus/Course Learning Outcomes: If you are proposing new courses, please include a tentative syllabus with course learning outcomes. This should not include textbooks, calendar, etc., but merely an idea of what the course content will include as well as what you

hope the student will accomplish by the end of the course. **State four course learning outcomes at the most.**

<p>Syllabus:</p> <p>Outcomes:</p>
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IV. Catalog Copy: What will these changes look like in the catalog?

1. If proposing to substitute new courses for old ones, **list old and new course descriptions side by side.**
2. State with precision what a new major, concentration, minor will look like.
 - Keep in mind academic policies with regard to number of units for major, minors, etc. See resource section at the end of this template.

Catalog Copy (Present)	Catalog Copy (New)
REQUIRED	REQUIRED
BIO 102 Environment and People* 4	BIO 102 Environment and People* 4
BIO 211 Ecological and Evolutionary Systems 4	BIO 211 Ecological and Evolutionary Systems 4
BIO 212 Organismal Biology 3	
BIO 360 Ecology 3	BIO 360 Ecology 3
CHE 101 Chemistry and Society* 4	CHE 101 Chemistry and Society* 4
OR	OR
CHE 151 General Chemistry Tutorial* (1)	CHE 151 General Chemistry Tutorial* (1)
AND	AND
CHE 152 General Chemistry I* 4	CHE 152 General Chemistry I* 4
TOTAL 18-19	TOTAL 15-16
UPPER-DIVISION ELECTIVES	UPPER-DIVISION ELECTIVES
Approved electives** 3	Approved electives** 5
One approved off-campus field-immersion course 4	One approved off-campus field-immersion course 4
TOTAL 7	TOTAL 9
<i>**Approved electives include the following:</i>	<i>**Approved electives include the following:</i>

<i>Biology 310, Biology 320, Biology 325, Biology 330, Biology 340, Biology 370, Biology 410, and Biology 430</i>	<i>Biology 310, Biology 320, Biology 325, Biology 330, Biology 340, Biology 370, Biology 410, and Biology 430</i>
TOTAL FOR MINOR 25-26	TOTAL FOR MINOR 24-25

Old Descriptions	New Descriptions
BIO 211 (4) ECOLOGICAL AND EVOLUTIONARY SYSTEMS	BIO 211 (4) ECOLOGICAL AND EVOLUTIONARY SYSTEMS - GE
An introduction to the principles of ecology, evolutionary biology and sustainability. Lecture and lab. Offered every semester.	An introduction to the principles of ecology, evolutionary biology and sustainability. Lecture and lab. Offered every semester.

V. Recorded Department/School Vote:

Please state the number and percentage of department school faculty who voted for the proposal. If other departments are affected, please inform the committee how those departments voted.

All Biology faculty, except Darrel Falk, were present and voted unanimously to approve both proposals.

VI. Library Impact:

What new library acquisitions, if any, will be needed to support the proposed changes? (If none, please state that.)

No library impact.

VII. Technological Impact:

What new software, hardware or additional lab space will be needed to support the proposed changes? (If none, please state that.)

No technology impact.

VIII. Final Summary: Review course and staffing impact with your College Dean.

Total course additions: 0

Total course deletions: 0

Total unit additions: 0

Total unit deletions: 0

Rotation of courses or deletion of sections to accommodate additions: Not applicable.

Staffing impact/increase or decrease: No staffing impact.

IX. Academic Policies Information to facilitate your work:

Majors:

1. Maximum number of units for a B.A. major: **49 units beyond G.E.**
2. Maximum number of units for a B.S. major: **59 units beyond G.E.**
3. Minimum number of upper division units in any major: **24 units**, half of which must be completed in residency.

Minors:

1. Minimum number of units for a minor: **16 units**
2. Minimum number of upper division units: **12 units**
3. Minimum number of units completed in residency: **9 units**

NON ACTION OR PROCEDURAL CHANGES: These changes will not go to the faculty floor for a vote. These are changes that include: revision of course descriptions including title, number or prerequisites, alternate year listing in the Catalog and the cross listing of courses.

I. List proposals with a one line abstract.

Examples:

Proposal I: To change xx description to read.....

Proposal II: To change pre-requisites for xx course....etc.

Proposal I: To change the pre-requisites for BIO310, Botany, to a correct description in the catalog.

Proposal II:

II. List current descriptions and new descriptions side by side.

Current Descriptions	New Descriptions
<p>Principles of plant structure, function and diversity. Lecture and lab. Offered every year.</p> <p><i>Prerequisite: Biology 210 (Biology and Chemistry majors) or Biology 105 (Environmental Biology minors), or consent of instructor. Mathematics 203 or Mathematics 362 recommended.</i></p>	<p>Principles of plant structure, function and diversity. Lecture and lab. Offered every year.</p> <p><i>Prerequisite: Biology 210 or Biology 105 or consent of instructor. Mathematics 203 or Mathematics 362 recommended.</i></p>

III. Rationale.

Include such things as:

1. To make descriptions more efficient;
2. To align content with what is actually being taught;
3. To meet standards for.....

Rationale:

BIO105 is not a course that is taken by Environmental Biology minors so we are deleting that phrase and simplifying the description of the pre-requisites.

Final Check-off List:

- _Y_ The College Dean has been consulted.
- _Y_ All affected departments have been contacted and the results are indicated in the proposal.
- _Y_ The proposal has been voted on by the department.
- _NA_ Appropriate contacts have been made with the library and media services.
- _Y_ Staffing impact has been addressed.