

CAS GE to LE Core Application

Preparer(s)

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Section I. CAS GE to LE Core Application Cover Sheet

Department/Program: Biology

Effective year and term for implementation of action: [2014]Fall

Current Course Information

Prefix:	Number:	Credits:
BIOL	180	3
Catalog Title: Conservation of the Environment		

Section II. Application for Inclusion in the Liberal Education Core

A. This course addresses the following Liberal Education Core Learning Outcome(s) (check all that apply):

Knowledge	<input type="checkbox"/> K1	<input type="checkbox"/> K2	<input type="checkbox"/> K3	<input type="checkbox"/> K4
Skills	<input type="checkbox"/> S1	<input type="checkbox"/> S2	<input type="checkbox"/> S3	
Responsibility	<input type="checkbox"/> R1	<input type="checkbox"/> R2	<input checked="" type="checkbox"/> R3	
Integration	<input checked="" type="checkbox"/> I1			

B. Provide the requested information for each identified learning outcome.

Responsibility 3 (R3): Use critical and creative thinking to address civic, social, and environmental challenges.

1. Describe the content of the experience and especially the relationship between the content and the identified learning outcome. If it is appropriate, estimate the percentage of time spent in the experience on the identified outcome.

Biology 180 (3 cr) is a course that meets each week for two lectures and one discussion period. We learn about environmental issues, conservation, and management of natural resources. Decisions and actions related to conservation have significant consequences for the well-being of life on earth. By necessity, these decisions are made in the face of uncertainty and with imperfect information about the consequences of action.

In this course, students are introduced to the knowledge that exists on a variety of environmental issues and then learn to critically evaluate the threats and/or opportunities to formulate educated responses and actions geared toward sustainability (rubric element A--identifies/contextualizes challenge and rubric element B--applies critical/creative thinking to address challenge). It is a reading- and writing-intensive course. The course is 100% integrative by nature with knowledge, skills, and responsibility gained from numerous disciplines used to address environmental challenges. The course also meets the WI Environmental Education DPI requirements for Early Adolescence-Adolescence (EA-A) licensure.

Learning outcomes for students include:

- development of a basic understanding of biological processes and principles as they relate to environmental conservation.
- an awareness and understanding of the integrated nature of the various causes, types and extent of our environmental problems
- knowledge of the different viewpoints and values that may lead to conflicts in conservation and awareness of the new approaches and tools used for environmental management and conservation
- an understanding of the role of governments, the private sector and non-governmental organizations
- knowledge of and ability to evaluate environmental policy and media
- development of a sense of personal stewardship, ethics and interest in environmental advocacy/ engagement and the ability to integrate knowledge and skills from other disciplines in seeking solutions
- improvement of critical thinking and skills in reading comprehension, written and verbal communication
- an opportunity for learning and applying team building and leadership skills for group situations

2. Describe the opportunities that the experience will offer students to meet the identified outcome. Your description can include pedagogy used, example assignments, broad discussion of the learning environment for the experience, etc.

Students attend lecture that by nature is interactive and engaging. For assignments students complete written Think Pieces (TPs) on weekly readings on environmental topics that coincide with lecture. They bring the TPs to the discussion section class for a 50-minute discussion period. Once a semester each student works as a team member to prepare for and facilitate one discussion period. Each student also completes a personal ecological footprint exercise and an environmental ethics exercise. Both follow-up with reflection questions. They also take three "content" exams. These activities connect to rubric element C--addresses challenges that involve civic, social and/or environmental dimensions. Please see attachments.

3. Identify and provide a rationale for the presence of all prerequisites.

There are no course prerequisites.

4. Describe the student work for the identified outcome that will be collected, assessed and results submitted to the University Assessment Committee for purposes of assessment of our Liberal Education Core. Examples of student work include student papers, in-class writing, exams, field experiences, oral presentations, etc.

Be sure to refer to the outcome rubric elements in relation to the student work that will be assessed. If there are aspects of your course that align with a selected learning outcome but are not well-reflected in its rubric, provide relevant commentary.

I will use a mid-to-late semester Think-Piece reading and reflection exercise. Reading titles change each semester to keep current with environment issues. I

will use the Bean, M. 1999 article as an example for this application. This assignment will address the R3 LE Core Rubrics in the following ways:

Element A: Student identifies and contextualizes challenge(s)--

Students identify key points of the article and reflect on the strengths and weaknesses of the article as it relates to the class. They propose a question based on their reading. For example, with Bean 1999, "What are the pros and cons of the Endangered Species Act?" "How does it work?" What are the challenges of the ESA for species and the humans that manage them?

Element B: Student applies critical and creative thinking to address challenge(s)--

Students are put into scenario of solving an environmental problem. For example, how do we keep an endangered species from going extinct? How effective is the ESA in doing so? Students evaluate their own situation and how to solve or address the problem(s) proposed in the article. For example, what if you lost cows to the Gray wolf? What do you think if you believe all animals have the right to exist? What are your rights under the law? How does this article connect back to your reading of Aldo Leopold's chapter, "Thinking like a Mountain?"

Element C: Student addresses challenge(s) that entail civic, social, and/or environmental dimensions--

How do we solve this issue or issues affecting the environment? Is it solvable? Preventable? Students propose answers within their TP and discuss answers in groups in class. What are the human dimensions and roots of the problem? Ecological? Social? Economic? Political?

All TP's are assessed to a rubric and receive a 0,1,2 or 3 rating that correlates with a point value. Exceptional TP's earn a 3+.

(Note: Element D: Student reflects on implementation of civic action to address challenge(s) will not be address as the course does not include a service-learning component.)

5. Provide additional information on the learning experience such as:

- **Sample readings**
- **Topical outline and timetable**
- **Learning outcomes**
- **A brief description of the experience (300 words maximum)**

Attachments include the syllabus which includes a course description, outcomes, timetable and sample reading list. The others are the artifact samples for R3 and I1 and one article sample.

Note: Catalog title will be changed to Environmental Biology and Conservation effective fall 2014.

6. Considering existing department/program resources, please provide answers to the following:

How many sections of the experience will be offered in the fall semester? 4 discussion sections, 1 lecture (N = 56)

How many sections of the experience will be offered in the spring semester? 2 discussion sections, 1 lecture (N = 28)

What will be the average size for each section of the experience? 14 per discussion section

Integration (I1): Apply knowledge, skills or responsibilities gained in one academic or experiential context to other contexts.

1. Describe the content of the experience and especially the relationship between the content and the identified learning outcome. If it is appropriate, estimate the percentage of time spent in the experience on the identified outcome.

See course overview and learning goals provided for the R3 outcome above.

Students will apply knowledge about themselves- their view of nature (ethics exercise) and their measurable physical impact (ecological footprint) to their historical understanding of the conservation movement, ecosystem function, current conservation/environmental institutions and policies (rubric element A-developing sense of self as learner). These are all focused on the most pressing and intertwined issues affecting the environment of our times: human overpopulation/poverty, loss of biodiversity, habitat loss, invasive species, air/water/soil pollution, waste management, agriculture and forestry/scarcity, climate change and energy/fossil fuels/alternative energy (rubric element B--makes connections across disciplines).

2. Describe the opportunities that the experience will offer students to meet the identified outcome. Your description can include pedagogy used, example assignments, broad discussion of the learning environment for the experience, etc.

Students attend lecture that is interactive and engaging with small group work and reflective writing. For assignments used for discussion sections, students complete writing intensive 'Think Pieces' (TPs) on weekly assigned readings (n=7) on environmental topics that coincide with lecture. Once a semester they also "team" facilitate one discussion period, do a personal ecological footprint, a personal environmental ethics exercise and take three exams. Weekly readings and TP assignments have them reflect on their own lives as well as their academic disciplines to gain a better understanding of how issues that affect the environment and cause problems are a result of social, political and economic problems caused by humans. These activities connect with rubric element C--applying skills, knowledge, or methodologies gained in one academic or experiential context to a different academic or experiential context. Please see syllabus and attached assignments.

3. Identify and provide a rationale for the presence of all prerequisites.

N/A

4. Describe the student work for the identified outcome that will be collected, assessed and results submitted to the University Assessment Committee for purposes of assessment of our Liberal Education Core. Examples of student work include student papers, in-class writing, exams, field experiences, oral presentations, etc.

Be sure to refer to the outcome rubric elements in relation to the student work that will be assessed. If there are aspects of your course that align with a selected learning outcome but are not well-reflected in its rubric, provide relevant commentary.

The artifact used will be the View of Nature Exercise and address the I1 LE Core Rubrics in the following ways:

Element A: Student demonstrates a developing sense of self as a learner by connecting academic knowledge to own experiences--

Students view 20 photos, identify contents and interpret each human-nature connection depending on own beliefs, morals and experiences.

Element B: Student makes connections across disciplines--

Students share results with other students and compares results given each of their majors, interests, socioeconomic, geographic region, gender, race, etc. They write a summary response of the outcome of their discussion.

Element C: Student applies skills, knowledge, or methodologies gained in one academic experiential context to a different academic or experiential context--

Students answers questions about exercise and how it applies to the class, other classes, their life and the bigger picture. They propose how they will apply what they have learned in class to subsequent discussions in the class as well as to apply what they have learned to other disciplines and life choices. For example, they learn that not all of us think alike, can disagree and yet maintain respectful dialogue and find common ground to solve problems.

5. Provide additional information on the learning experience such as:

- **Sample readings**
- **Topical outline and timetable**
- **Learning outcomes**
- **A brief description of the experience (300 words maximum)**

Attachments include the syllabus which includes a course description, outcomes, timetable and sample reading list. The others are the artifact samples for R3 and I1 and one article sample.

6. Considering existing department/program resources, please provide answers to the following:

How many sections of the experience will be offered in the fall semester? 2-4 discussions, 1 lecture (N = 28-56)

How many sections of the experience will be offered in the spring semester? 2 discussions, 1 lecture (N = 28)

What will be the average size for each section of the experience? 14-16 in each discussion

Attachments

Bio180_Think piece instructions.artifact.R3.pdf	10/9/2013 9:35 PM	Biology
Biol 180_View of Nature Exercise. artifact.I1.pdf	10/9/2013 9:35 PM	Biology
ESpAct.Bean Review1999.pdf	10/9/2013 9:45 PM	Biology
Syllabus _Sp2013 copy for LEdocx.docx	2/10/2014 12:26 PM	Biology

General Notes and Comments:

Date of Department/Program Approval (Include all department/program names and approval dates as appropriate):

February 11, 2014

College Curriculum Committee or Equivalent Action:

2/20/2014 Approved Denied

University Liberal Education Committee Action:

Approved Denied

Signatures