Boise State University
Foundational Studies Program Course Application Form
Due to the Foundational Studies Program by August 19, 2011

After the Foundational Studies Program has approved a course, departments will continue through the regular department and college procedures. The approved course should be submitted to the University Curriculum Committee by October 1, 2011.

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Instructions:

1. Complete one form per course.
2. Attach this Foundational Studies Course Application Form to the back of the University Curriculum Committee “Request for Curriculum Action” form. Both forms should be submitted to the Foundational Studies Program Office by August 19, 2011.

Part I. Course Information

Course Number and Title: ENVSTD 121: Introduction to Environmental Studies

Type of Foundational Studies Course – (Choose One):
[ ] DLS (Disciplinary Lens – Social Science)
[ ] DLL (Disciplinary Lens – Literature and Humanities)
[ ] DLV (Disciplinary Lens – Visual and Performing Arts)
[ ] DLM (Disciplinary Lens – Mathematics)
[x] DLN (Disciplinary Lens – Natural, Physical, and Applied Sciences)
   Includes Lab: [ ] Yes [x] No
[ ] CID (Communication in the Discipline)
[ ] FF (Finishing Foundations)

Delivery Format(s) – (Check all that apply):
[x] Face to Face
[ ] Fully Online
[ ] Hybrid
[ ] Concurrent Enrollment
[ ] Other (briefly describe):
Part II. Syllabus Statement

Boise State's Foundational Studies Program provides undergraduates with a broad-based education that spans the entire university experience. ENVSTD 121 satisfies 3 credits of the Foundational Studies Program's Disciplinary Lens – Natural, Physical and Applied Science requirements. It supports the following University Learning Outcomes, along with a variety of other course-specific goals.

ULO 8. Apply knowledge and methods characteristic of scientific inquiry to think critically about and solve theoretical and practical problems about physical structures and processes.

ENVSTD 121: Introduction to Environmental Studies is designed to provide an introduction to the concepts and issues of environmental studies, as well as the scientific process. It integrates scientific, socio-political, and humanistic approaches to the understanding of nature and how humans interact with the rest of nature. It explores interdisciplinary topics linking science and technology with humans and the environment. The course examines real-world environmental issues and demonstrates how the scientific method and an integrative, interdisciplinary approach are used to formulate questions and test evidence and observations. Students gain experience communicating about scientific findings, with an emphasis on the role the interaction of science with other approaches to understanding plays in community engagement and environmental decisions. This course helps to achieve the goals of the Foundational Studies Program by focusing on the following course learning outcomes.

After successful completion of this course, you will be able to:

• Use knowledge and methods based on the scientific process to evaluate and analyze information and propose solutions to issues about the physical environment and environmental process;
• Develop research questions to examine environmental issues;
• Identify the variety of natural resources used by humans;
• Evaluate the role human activities have on environmental pollution, biodiversity, and global change;
• Apply analytical skills and environmental concepts to organize and interpret data, predict outcomes, justify decisions or actions;
• Use environmental information when communicating to different audiences or communities;
• Use science based reasoning to make informed decisions in order to evaluate environmental topics and link these to community engagement;
• Apply an interdisciplinary perspective to make economic, ethical-value, public policy choices and decisions in the context of environmental topics.
Part III. Design for Accessibility

In the space below, briefly describe plans for providing access to course materials and activities (or equivalent alternatives) to all students in adherence with the Americans with Disabilities Act. Although these plans may vary from instructor to instructor, the descriptions provided below should be representative of intended departmental and instructor practices. (See example statements appended to this form.)

*ENVSTD 121: Introduction to Environmental Studies:* Extra time on tests, oral examinations, or other accommodations will be provided to students as needed per the policies of the Disability Resource Center. All posted PDF reading assignments will be checked for readability by a screen reader (Academic Technologies will be asked to assist with a review of these electronic materials). When available, videos chosen for use in the course will be those that have been close-captioned by the content producer, or links to internet transcripts will be provided. PowerPoints used in class lectures, insofar as they contain graphs or other visual representations of content, will be verbally described to students on an as-needed basis.

Part IV. Evidence of Quality Course Design

Please use the table below (column headings for this table should not be changed) to provide evidence that the course has been carefully designed and is clearly aligned with Foundational Studies Program desired ULOs. All sections of the course should share similar student learning outcomes. Teaching and Learning Activities and Assessment Methods may vary from instructor to instructor. Please use the table to report representative strategies that may be used. Assessment activities used for reporting to the Foundational Studies Program should be consistent across different sections of the course.

Please see below.
## Boise State University
### Foundational Studies Course
#### Spring 2014

Course Number and Title: ENVSTD 121: Introduction to Environmental Studies

### Course Design Table

<table>
<thead>
<tr>
<th>Foundation ULO 8 Criteria</th>
<th>Foundation ULO 8 Notions of Exemplary Work</th>
<th>Course Learning Outcomes: By the end of this course, each student should be able to…</th>
<th>Assessment Method: Evidence of Student Learning</th>
<th>Planned Teaching &amp; Learning Activities / Pedagogy</th>
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</thead>
<tbody>
<tr>
<td>ULO 8.1: Process of Inquiry and Analysis in Response to Evidence or Observation</td>
<td>Skillfully and thoroughly formulates a research question or testable hypothesis</td>
<td>Use knowledge and methods based on the scientific process to evaluate and analyze information, and propose solutions to issues about the physical environment and environmental process.</td>
<td>In-class participation and out-of-class activities applying concepts to examine real world environmental topics. On-line quizzes on specific topics (modules, chapters). On-line exams. Blackboard reports with rubrics (criteria and standards).</td>
<td>In-class practice/interaction using hypothetical and real-life case studies (connected systems, deforestation, extinction, land-use, pollution, climate change); In-class pair/share on problem so living: form research questions and develop research project; Out-of-class projects, with Blackboard reports; Introduced and augmented by PowerPoint talks/demonstrations, online videos, use of internet resources.</td>
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<td>Constructs a model to test evidence and observations</td>
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<td>Skillfully uses model to either confirm existing explanations or formulate new hypotheses</td>
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<td>ULO 8.2: Understanding of Knowledge and Inquiry</td>
<td>Clearly understands the difference between evidence (data) and explanation (theory)</td>
<td>Develop research questions to examine environmental issues; Apply analytical skills and environmental concepts to organize and interpret data, predict outcomes, justify decisions or actions.</td>
<td>Blackboard report that summarizes evidence, interprets scientific data presented as chart or diagram, and discusses implications (time series, scatter plots, line graphs, bar graphs, pie charts, climate diagrams, age structure diagrams--&quot;graph and explain this activity&quot;); On-line quizzes and exams; Use of data collected from (as examples): campus or community farming; campus wildlife survey; Boise River watershed studies; water, energy, C02, transportation, solid waste audits.</td>
<td>Projects providing experience in organizing data, creating and interpreting charts and graphs; In-class &quot;think/do-pair/compare&quot; or &quot;read/report/rate;&quot; Extinction chances/at risk and carrying capacity (resource vs. population) projects; Changes through time learning activity; Boise water and air quality data interpretation project; Remote Sensing/Google Earth activity on environments (Boise River floodplain; location of dams; ecosystem boundaries, land-use, hazards); Introduced and augmented by PowerPoint talks/demonstrations, online videos, use of internet resources.</td>
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<td>ULO 8.3: Communication of Scientific and/or Technological Understandings</td>
<td>Produces clear, accurate, well-organized written and oral communications about scientific and technological understandings * Use of scientific language, representational tools, and notation covered in the course is skillful.</td>
<td>Use environmental information when communicating to different audiences/communities.</td>
<td>Short written/oral reports where environmental data or diagrams are interpreted; Homework activities providing practice in translating the results of environmental science into a form accessible to the general public (with evaluation criteria and standards); Blackboard reports (with criteria and standards).</td>
<td>Pair/share reporting activity; In-class information on using resources and different ways of communicating based on intended audiences; Mock congressional/legislative hearings using teams/collaboration groups; Introduced and augmented by PowerPoint talks/demonstrations, online videos, use of internet resources.</td>
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<td>ULO 8.4: Understanding of interactions of science and technology with humans and environment</td>
<td>Identify the variety of natural resources used by humans; Evaluate the role human activities have on environmental pollution, health, biodiversity, and global change; Use science based reasoning to make informed decisions to evaluate environmental topics and link these to community engagement; Apply an interdisciplinary perspective to make economic, ethical-value, public policy choices and decisions in the context of environmental topics.</td>
<td>Quizzes and Exams Short written/oral reports where environmental data or diagrams are interpreted Homework activities providing practice in translating the results of environmental science into a form accessible to the general public. Relate scientific finding to impact on society Short reports: where does your &quot;x&quot; come from and where does it go (x ..air, water, energy, jobs);life-cycle analysis (procurement, manufacture, use, disposal, impact) Reflective short essay on possible small and big decisions and actions (individual, local, national, global)</td>
<td>In-class jigsaw as practice; In-class discussion and reflection; Introduced and augmented by PowerPoint talks/demonstrations, online videos, use of internet resources; Community engagement activities linked to short reflect oral/written communication. Examples: Campus or community farming; campus/greenbelt wildlife-habitat survey; Boise River watershed studies; water, energy, carbon, transportation, solid waste audits/footprint calculations, sustainable lawn/campus vegetation/golf courses and cemeteries; CamptJs smart growth project design; Idaho energy debate [advantages/disadvantages of various technologies]; Blackboard lists of community environmental organizations followed by short reports and pair/share.</td>
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<td>Foundational Studies Program Director Signature</td>
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