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: GEOS 498 Geosciences Senior Seminar

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)
[ ] DLN (Disciplinary Lens – Natural, Physical, and Applied Sciences)
  Includes Lab: [ ] Yes [ ] No
[ ] CID (Communication in the Discipline)
[x] 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:

In the space below, include the syllabus statement for this course which will appear on the first page of the syllabus for each section of this course. (Template and examples are appended to this application form.)

Boise State's Foundational Studies Program provides undergraduates with a broad-based education that spans the entire university experience. GEOS 498 Geosciences Senior Seminar satisfies 1 credit of the Foundational Studies Program Finishing Foundations (FF) requirement. It supports the following University Learning Outcomes, along with a variety of other course-specific goals.

- ULO 2: Oral Communication
- ULO 3: Critical Inquiry
- ULO 4: Innovation and Teamwork

GEOS 498 Senior Seminar is designed to provide a culminating capstone experience for senior geosciences, geophysics, and Earth science education majors that will help prepare you for your professional life in the geosciences. Students will practice evaluating and synthesizing information in the scientific literature through individual and group assignments, and will reflect on their professional preparation through the creation of a portfolio of work completed as part of their BS degree. 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:

1. Evaluate information in the scientific literature
2. Synthesize competing alternate ideas from the scientific literature
3. Effectively communicate alternate ideas from the scientific literature
4. Propose relevant testable hypotheses
5. Describe and demonstrate how you have met the learning goals for your degree program

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.)

GEOS 498 Geosciences Senior Seminar: There are no exams given in this course, therefore testing accommodations are not necessary. All course handouts will be posted on the course Blackboard site. All posted pdf reading assignments will be checked for readability by a screen reader. (The department will ask Academic Technologies to help with a review of these electronic materials). Whenever available, videos chosen for use in the course will have been close-captioned by the content producer to provide access to students with hearing impairment. PowerPoint presentations used in class that 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.

Part V. Additional Justification (Optional):

If the brief justification provided to the University Curriculum Committee in the proposal to accompany the “Request for Curriculum Action” is not sufficient to make the case for including the course in the Foundational Studies Program, additional (optional) narrative can be added here.

None necessary.

<table>
<thead>
<tr>
<th>Foundational Studies Program Director Signature</th>
<th>Date</th>
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</table>
Boise State University
Foundational Studies Course

Course Number and Title: GEOS 498 Geosciences Senior Seminar

Course Design Table

<table>
<thead>
<tr>
<th>Foundation ULO Criteria</th>
<th>Foundation ULO 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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<tbody>
<tr>
<td>ULO 3: Critical Inquiry</td>
<td>• Connect and organize evidence/data/reasoning • Evaluate reasoning • Demonstrable use of reasoning</td>
<td>• Evaluate information in the scientific literature.</td>
<td>• Each student presents ideas from one peer-reviewed journal article. 1-2 page written summary should identify the hypotheses tested, the methods used, important assumptions made, results, conclusions, and implications. Student should also comment on the perceived value of the work. Were the authors’ arguments convincing?</td>
<td>• Class discussion on how to find legitimate scientific sources of information and how to evaluate them. Students each choose a paper to read and evaluate. Evaluation is reviewed by the course instructor and is peer-reviewed based on class-generated rubric. This skill will be practiced and evaluated in later assignments, as well.</td>
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<tr>
<td>ULO 3: Critical Inquiry ULO 4a: Innovation</td>
<td>• 3 - Articulate the problem/question/issue • 3 - Connect and organize evidence, data, reasoning • 4a - Connects, synthesizes, transforms • 4a - Divergent and convergent thinking demonstrate</td>
<td>• Synthesize competing or alternate ideas from the scientific literature.</td>
<td>• Students work in a group to synthesize and present ideas from several papers discussing the same problem/topic. • Groups of 3-4 students choose a topic to explore. Each student reads 3-4 papers and the group works to synthesize the ideas and present them orally to the class.</td>
<td>• Students write summaries of each paper they read. These summaries are peer-evaluated based on class-generated rubric. The group then writes an overall summary of the problem/topic that the instructor evaluates.</td>
</tr>
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| **ULO 2: Communication** | • Articulate the problem/question/issue  
• Connect and organize evidence/data/reasoning  
• Demonstrable use of reasoning  
• Speak effectively  
• Offer supporting material | • Effectively communicate alternate ideas from the scientific literature. | | • Class discussion of what makes a good oral presentation. Instructor gives a talk how to give an effective oral presentation. Students watch and evaluate several “TED” presentations using a class-generated rubric. Student group presentations are evaluated using the same rubric. |
| **ULO 3: Critical Inquiry**  
**ULO 4a: Innovation** | • 3 - Articulate the problem/question/issue  
• 3 - Connect and organize evidence/data/reasoning  
• 4a - Makes a contribution to solving a problem  
• 4a - Connects, synthesizes, transforms | • Propose relevant testable hypotheses. | • Students work in a group to write a proposal related to the topic of their literature synthesis. | | • Class discussion of proposal elements and effective writing strategies. Readings on proposal preparation. Proposals will be instructor reviewed. |
| **ULO 3: Critical Inquiry**  
**ULO 4a: Innovation** | • 3 - Connect and organize evidence/data/reasoning  
• 4a - Connects, synthesizes, transforms  
• 4a - Takes risks, explores ideas | • Describe how they have met the learning goals for their degree program. | • Students create a portfolio of work that demonstrates their knowledge and skills. Includes CV, examples of student work and reflective essays. | | • Class discussion of degree learning goals and examples of how students have met those goals. Students write reflective essays describing how they have met each learning goal. Class instruction on how to write a CV or resume. |