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

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 1. Course Information

<table>
<thead>
<tr>
<th>Course Number and Title:</th>
<th>CHEM 101/CHEM 101L Essentials of Chemistry I</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Foundational Studies Course - (choose one):</td>
<td></td>
</tr>
<tr>
<td>[ ] DLS (Disciplinary Lens – Social Science)</td>
<td>[ ] DLL (Disciplinary Lens – Literature and Humanities)</td>
</tr>
<tr>
<td>[ ] DLM (Disciplinary Lens – Mathematics)</td>
<td>[ ] DLN (Disciplinary Lens – Natural, Physical and Applied Sciences) Includes Lab</td>
</tr>
<tr>
<td>[ ] FF (Finishing Foundations)</td>
<td></td>
</tr>
</tbody>
</table>

Delivery Format(s) - (check all that apply):

[ ] 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.) Attach additional pages if needed.

Boise State's Foundational Studies Program provides undergraduates with a broad-based education that spans the entire university experience. CHEM 101/101L: Essentials of Chemistry I and Lab satisfies 3 units of the Foundational Studies Program's Disciplinary Lens - Natural, Physical, and Applied Sciences (DLN) requirement. It supports the following University Learning Outcomes, along with a variety of other course-specific goals.

8. Apply knowledge and the methods characteristic of scientific inquiry to think critically about and solve theoretical and practical problems about physical structures and processes.
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.) Attach additional pages if needed.

CHEM 101/101L: Essentials of Chemistry I and Lab: 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 be those that have been close-captioned by the content producer to provide access to students with hearing impairment. PowerPoint presentations 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. We will add textual descriptions accessible by screen readers to images used on the course web site. Extra time on tests, oral examinations, or other accommodations will be provided to students as needed per the policies of the Disability Resource Center.

Part IV. Evidence of Quality Course Design

Attach a separate document including a table like the one below. (A link to the Word template that allows rows to be adjusted as needed may be found at: Course Design Table. Column headings for this table should not be changed.) The purpose of the table is 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.

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.

This is a course that is required by certain health professional programs. This course is also a large enrollment course.

Electronically signed by Vicki Speh, Director, Foundational Studies Program

Boise State University

CERTIFIED FOR APPROVAL 8-30-2011.

Foundation Studies Program, Director Date

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<table>
<thead>
<tr>
<th>Foundational Studies ULO Criteria and Notions of Exemplary Work</th>
<th>Course Learning Outcomes</th>
<th>Assessment Method: Evidence of Student Learning</th>
<th>Planned Teaching and Learning Activities/ Pedagogy</th>
</tr>
</thead>
</table>
| Process of Inquiry and Analysis in Response to Evidence or Observations | analyze data or models for trends and relationships - use data or models to make meaning, draw conclusions, or draft hypotheses and make predictions | Exams and Homework  
The performance on select problems from the homework and exams will be reported. | Problem sets, homework, class discussion |
| Understanding of Knowledge and Inquiry | articulate an understanding of the particulate nature of matter ("thinking" on the level of atoms and molecules)  
Relate the basic structure of atoms and molecules to their chemical properties and behavior  
Solve basic chemical problems related to the behavior and properties of atoms and molecules by drawing upon your conceptual understanding of chemistry and your knowledge of quantitative relationships. | Exams and Homework  
The performance on select problems from the homework and exams will be reported. | Problem sets, homework, class discussion |
| Communication of Scientific and/or Technological Understandings | Identify, use, and articulate an understanding of information derived from both written and spoken sources | Exams and Homework  
The performance on select problems from the homework and exams will be reported. | Problem sets, homework, class discussion |
| Understanding of Interactions of Science and Technology with Humans and Environment | | | |
Course Information

Course Number and Title: CHEM 101/CHEM 101L Essentials of Chemistry I

Number of Credits: 3

Type of Foundational Studies Course (choose one)

☐ DLS (Disciplinary Lens – Social Science)
☐ DLL (Disciplinary Lens – Literature and Humanities)
☐ DLM (Disciplinary Lens – Math)
X DLN (Disciplinary Lens – Natural, Physical and Applied Science)
☐ DLV (Disciplinary Lens – Visual and Performing Arts)
☐ FF (Finishing Foundations)

Review Committee Checklist

_Y__ Syllabus Statement - statement introduces the student to the purpose and role of the course in the Foundational Studies Program curriculum.

_Y__ An appropriate number of Course Learning Outcomes are specified for the course and are clearly designed to support the Foundational Studies Program ULOs.

_Y/N__ Course Learning Outcomes are appropriately designed for level of the course and address both content mastery and skill-based outcomes.

_Y__ The types and numbers of assessments planned for the course are appropriate for measuring the content or skills being assessed

_Y__ Course learning activities are likely to promote the achievement of the stated outcomes

_Y__ Course design and materials have considered best practices for accessibility to course materials and ideas by all students (e.g., alternatives to auditory and visual content)

Feedback from Review Committee:
The Understanding of Interactions section is not addressed in the table, but this may not be part of the course plan. Does it need to be in the final design to meet DLN status?

Feedback from Foundational Studies Program Director

Regarding not addressing “understanding of interactions” criteria on the DLN rubric... Although we would like to work with departments and faculty to build in articulation between courses and learning outcome criteria, we know that for some this process may be a continuous one. I am told that during the DL workshops the essential message was not to "force" a fit if it just was not there. So, if one criterion is not well articulated to course learning outcomes, assessment, and teaching strategies, it is not a "deal breaker" but rather a starting point for our future development. On behalf of the program, I hope that we can work together to provide the kinds of support the faculty need to articulate this important criterion for the DLN area.

In the meantime, I would encourage the CHEM 101 faculty to discuss what it means to “understand interactions between technology and humans” and think about where that might take place during CHEM 101. I cannot help but wonder what types of equipment (= technology) plays into a chemist’s work and how that builds understanding in this discipline?