B.S. Geography SLOA Plan 2016, Part I

UNIVERSITY OF ALASKA FAIRBANKS
Student Learning Outcomes Assessment Plan, 2016
B.S. Geography
School of Natural Science & Mathematics

MISSION STATEMENT: The UAF Geography Program aspires to provide quality education through close student-faculty relationships, development of critical-thinking and decision-making skills, student participation in research and other scholarly activities, and recognition of students’ individual interests and needs.

GOAL STATEMENT: Geography majors will become professionals with expertise and skills in physical and human geography, geospatial sciences, and related fields. They will learn to investigate, describe, explain, and interpret the physical and human characteristics of the earth, with particular focus on measuring climate-driven change in Alaska and the Circumpolar North. This will prepare them to make professional contributions in the areas of geographic research, education, civil service, foreign service, resource management, tourism, and many other academic and applied fields.

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<th>Intended Outcomes</th>
<th>Criteria &amp; Procedures</th>
<th>Implementation (what, when, who)</th>
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<td>Upon completion of introductory courses (GEOG 101x and 111x), students will demonstrate understanding of basic geography concepts, including: a) human response to environmental change, b) drivers of landscape evolution, c) impacts of climate change on arctic landscapes and human systems.</td>
<td>Students will take a Geoscience Concept Inventory (GCI) before and after GEOG 101x and again after GEOG 111x to assess learning gains or losses during the introductory sequence. Students will repeat the GCI again at the end of an upper-division course. Modification to instruction will target concepts that &gt;30% students failed to grasp on the post-test and questions that reveal negative learning gains across the introductory sequence or across the curriculum.</td>
<td>The GCI will be administered during the first GEOG 101x class and GEOG 111x lab and repeated during the final GEOG 101x exam and the final GEOG 111x lab. Transfer students who have already complete the introductory sequence will take the GCI at the time they declare a major. All students will repeat the GCI in an upper-division course (GEOG 460, GEOG 483, or GEOG 490) in order to assess long-term retention. TAs will score the results by question. Instructors will meet annually to discuss how to adjust instruction to address common misconceptions.</td>
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<td>Graduates will demonstrate skills in written and oral communication consistent with professional standards.</td>
<td>For each geography major, rubrics for evaluating research, critical-thinking, and communication skills in the following courses will be filed for assessment comparisons: GEOG 312, GEOG 483w/o, GEOG 490w/o. A final evaluation of these skills is done in two capstone courses: GEOG 490 (Senior Seminar) and GEOG 483 (Research Design, Writing, and Presentation Methods), which are both required for all BS majors.</td>
<td>Assessments of written and oral presentations will be compiled and reviewed annually by faculty teaching oral- or writing-intensive courses.</td>
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<td>Students will develop the necessary skills for employment and graduate school. Students seeking employment or continued education in geography or related fields will be employed or admitted to graduate programs within two years of graduation.</td>
<td>Students will enroll in an internship or undergraduate research course to develop applicable skills and employer networks. Graduates will complete an on-line exit survey. Additional input from students will be gathered during an annual student feedback seminar. Students will be tracked after their graduation to determine job placement and location.</td>
<td>Internships (GEOG 300) and Undergraduate Research projects (GEOS 488) will be reviewed annually and partners will be met with to assess student outcomes and program improvements in the future. This will ensure students are prepared to enter the workforce upon graduation. Survey results will be reviewed and discussed annually. One Friday seminar slot will be reserved for students to compile feedback, without faculty present. Faculty will discuss and respond to feedback annually.</td>
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INTRODUCTION
In 2014 the Geography Program merged with the Geoscience Department. Since then the program has gone through extensive curriculum changes and is now working diligently to carry out Student Learning Outcome Assessments. We regret our inability to submit SLOA reports in the past and have made extensive efforts to ensure they are effectively carried out and submitted annually in the future. One of the benefits of the merger is that we will be utilizing the SLOA framework established and successfully implemented by the Geoscience Department. This will provide the Geography Program with a framework in which to carry out our SLOAs and the needed administrative support to aid in the process. We look forward to actively assessing our students in the future and improving our programs and course offerings based on the outcomes. Below we present the framework of our plan with some initial results from our assessments.

SLOA committee: Cary de Wit, Chris Maio, Danial Mann, and Kevin Hillmer-Pegram.

The SLOA Plan and suggested curricular changes will be voted on by all faculty at the first faculty meeting of the fall semester.

BS IN GEOGRAPHY
We have devised five tools to collect and compare data regarding student learning and skill acquisition throughout the BS program. These tools are described briefly below.

Geography Concept Inventory: Students taking GEOG 101x (Expedition Earth: Introduction to Geography) and GEOG 111x (Elements of Physical Geography), our introductory sequence for Geography majors, will take a pre-test and post-test at the beginning and end of each course, respectively, to assess misconceptions and measure learning gains or losses. The tests are based on the Geoscience Concept Inventory (GCI), a community instrument designed and tested by science educators (http://geoscienceconceptinventory.wikispaces.com/home). Beginning next year, students will be able to take the pre- and post-tests online, and data regarding common misconceptions and learning gains or losses across the two-semester sequence will be automatically compiled.

O and W Rubrics: O and W courses are offered as required or elective courses within the program. Final poster and oral presentations and papers will be assessed with O and W rubrics. Two examples of O and W rubrics currently being used appear at the end of this document. Additionally, a poster presentation rubric is also provided. This will facilitate comparison of skills between courses and allow us to determine which courses are most effective in terms of developing oral and written communication skills. We currently do not have any data based on these rubrics as they have only recently been employed.

Workforce Development: As of 2016 students enrolled in the Geography BS degree are required to enroll in either GEOG 300 Internship in Geography or GEOS 488 Undergraduate Research. This provides opportunities for the development of genuine workforce development skills and networking with postgraduate employers. The success of these internships will be judged based on specially designed Intern or Research Rubrics. The faculty have agreed to develop these rubrics during the 2016-2017 academic year and have them in place during the 2017-2018 academic year. Results from this are shown in the attached 2016 SLOA Report.
**Undergraduate Exit Survey:** All graduating seniors will complete an online exit survey (attached) that includes questions about their experience at UAF and their plans following graduation. This will be carried out in conjunction with the Geoscience Department’s exit survey and thus streamline administrative work and better integrate student outcomes.

**Tracking Graduates and Alumni:** We will use e-mail, the CNSM Facebook page, and internet searches to track our graduates’ career paths. We will also keep track of non-UAF students who completed our capstone field course. Results of this work are shown below.