Weber State University
Biennial Report on Assessment of Student Learning

Cover Page

Department/Program: Department of Geography
Academic Year of Report: 2018/19 (covering Summer 2017 through Spring 2019)
Date Submitted: November 15th, 2019
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A. **Brief Introductory Statement:**
Please review the Introductory Statement and contact information for your department or academic program displayed on the assessment site: **http://www.weber.edu/portfolio/departments.html** - if this information is current, please place an 'X' below. No further information is needed.

_X__ Information is current; no changes required.

Update if not current:

B. Mission Statement
Please review the Mission Statement for your department or academic program displayed on the assessment site: **http://www.weber.edu/portfolio/departments.html** - if the mission statement is current, please place an 'X' below.; If the information is not current, please provide an update:

___ Information is current; no changes required.

Update if not current:

The mission of the Geography Department is to prepare students to engage in the processes that create more sustainable environments and communities throughout the world.

We offer students the highest quality geographic education through innovative teaching, interactive field experiences, and integrative research.
We provide students with foundational geographical knowledge and skills that focus on the interconnection and interdependency of Earth's complex natural systems and diverse human societies.

C. Student Learning Outcomes
Please review the Student Learning Outcomes for your academic program displayed on the assessment site: **http://www.weber.edu/portfolio/departments.html**. In particular, review in light of recent strategic reporting and indicate any needed updates. If the outcomes are current, mark below.

_X__ Information is current; no changes required.

Update if not current:

D-1. Curriculum
"A collection of courses is not a program. A curriculum has coherence, depth, and synthesis."
(Linda Suskie; presentation at NWCCU Assessment Fellowship, June 19, 2019)

Please review the Curriculum Grid for your department or academic program displayed on the assessment site: **http://www.weber.edu/portfolio/departments.html**.

Indicate in the curriculum grid where graduating student performance is assessed for each program outcome. In the 'additional information' section, please provide information about these assessments (e.g., portfolios, presentations, projects, etc.) This information will be summarized at the college and institutional level for inclusion in our NWCCU reporting on student achievement.

Curriculum Map Format Measured Against the 5 Geography Department Learning Outcomes

Courses in Department/Program	Learning Outcome 1	Learning Outcome 2	Learning Outcome 3	Learning Outcome 4	Learning Outcome 5
1000	E	I	I	NA	I
1002	I	I	E	NA	P
1005	E	I	I	NA	P
1300	I	E	I	NA	E
1500	E	I	I	NA	I
1520	I	I	I	NA	E
1890	P	P	E	I	NA
2400/4400	P	P	E	I	NA
2840/4840	P	P	E	I	NA
2850/4850	P	P	E	I	NA
2920	NA	NA	NA	NA	NA
2950	NA	NA	NA	NA	NA
3050	M	P	P	NA	P

Courses in Department/Program	Learning Outcome 1	Learning Outcome 2	Learning Outcome 3	Learning Outcome 4	Learning Outcome 5
3060	M	P	P	P	E
3070	M	P	P	NA	P
3080	M	P	P	NA	P
3090	M	P	P	NA	P
3210	P	M	P	NA	E
3300	E	M	P	NA	E
3360	E	M	P	NA	E
3500	E/M	E/M	P	NA	E/M
3540	E/M	E/M	P	NA	E/M
3590	E/M	E/M	P	NA	E/M
3600	E/M	E/M	P	NA	E/M
3640	E/M	E/M	P	NA	E/M
3740	E/M	E/M	P	NA	E/M
3780	E/M	E/M	P	NA	E/M
4410	M	E/M	E	M	E
4420	M	E/M	E	M	E
4800	E/M	E/M	E/M	NA	E/M
4890	E/P	E/P	M/P	M/P	E/P
4920	NA	NA	NA	NA	NA
4950	E/M	E/M	E/M	P	E/M
4990	M	M	M	NA	M

Note[a]: Define words, letters or symbols used and their interpretation; i.e. 1= introduced, 2 = emphasized, 3 = mastered or I = Introduced, E = Emphasized, U = Utilized, A = Assessed comprehensively; these are examples, departmental choice of letters/numbers may differ

Note[b]: Rows and columns should be transposed as required to meet the needs of each individual department

***Note[C]*: These courses reflect recent catalog additions and soon-to-be deletions (November 2019).**
***Note[D]*: Geography uses I, E, M = Mastered, P = Peripherally Addressed, and NA = Not Applicable**

Additional Information (details about graduating student assessment):

Geography still employs these assessment techniques shown below, but is also now utilizing **Signature Assignments, Big Questions, and even more High Impact Learning Experiences**:

Exam or Quiz questions that assess general education and departmental learning outcomes (either exclusively or in conjunction with assessing course content). These will be agreed upon by faculty, delivered each semester, and tracked through Chi-tester.

Homework assignments, Research papers, Journals or Reflection papers, Field work, Surveys, Data collection, Statistical and/or Spatial Analysis, Map Design and Creation, Presentations, Portfolios, Service Learning, and Graduate Exit Interviews.

D-2. High Impact Educational Experiences in the Curriculum

In response to the recent USHE requirement that all students have at least 1 HIEE in the first 30 credit hours and 1 HIEE in the major or minor we are asking programs to map HIEEs to curriculum using a traditional curriculum grid. This helps demonstrate how and where these goals are accomplished.

		Department/Program use of High Impact Educational Experiences							
Courses	HIEE 1	HIEE 2	HIEE 3	HIEE 4	Etc…				
1002	Field Work								
1005		Data Collection							
2400/4400							Hands-on learning		
2840/4840					Internships				
2850/4850						Project-based learning		Capstone	
2920			Supplemental Instruction	CEL					
2950	Field Work								
3600						Project-based learning			
4410				CEL			Pre-profession Career		

Courses			**Department/Program use of High Impact Educational Experiences**						
	HIEE 1	HIEE 2	HIEE 3	HIEE 4	Etc…				
4420				CEL		Project-based learning	Pre-profession Career		
4800									Undergraduate Research
4890					Internships				
4950	Field Work								
4990								Capstone	Undergraduate Research

HIEEs include capstone courses or experiences, community-engaged learning, evidence-based teaching practices, internships, project-based learning, study abroad/away, supplemental instruction, team-based learning, undergraduate research, pre-professional/career development experiences.

Additional information (HIEE planning, assessment, or other information):

Geography engages in a great number of very successful High Impact Teaching and Learning Practices. Yearly, the department offers **Study Abroad Service Trips**. Most recently we sent students to Peru, Mozambique, Rwanda, Thailand, Turkey, and others. Similarly, we guide students on regional **Field Trips**. Travel and exploration have included Death Valley NP, City of Rocks NR, Goblin Valley SP, Antelope Island SP, Dead Horse Point SP, Goosenecks of the San Juan SP, Canyonlands NP, Arches NP, Grand Teton NP, as well as local trips to Great Salt Lake, Salt Lake City, and the streets of Ogden.

Geography students benefit from **Faculty Research** and successful **Grant Winning** (NSF, iUtah, ESRI, Office of Undergraduate Research, etc.). The department deems these projects, where students and faculty work closely together, as **Directed Research/Study Projects.** These projects have allowed students to engage in field and laboratory work, administer surveys, gather data, acquire software and gear, take online classes and tutorials, write papers, make maps and posters, attend conferences, and present their findings. Additionally, our students benefit greatly from **Internship Opportunities**. Over the years, we've had dozens of students gain invaluable experience, earn college credit, and often get paid in a great variety of internships. A specific and fuller list appears on our department website, but in short, our students have filled internships in city, county, state, and federal governmental agencies, private business, non-profit organizations, local school districts, and with other institutions of higher education. Titled **Cooperative Work Experience** by the department, these internships often blossom into employment after graduation.

Service Learning opportunities abound for students in the Geography Department. Examples include: Global Community Engaged Learning (GCEL) program; Green Mapping project; Global Education Opportunity (GEO) program; and Community Engaged Learning (CEL) curriculum. Although in need of an update, a comprehensive list of partners and projects can be found on our departmental website: https://www.weber.edu/geography/internships.html

That all said, **these HIEE practices are very difficult to assess**. We rely on student evaluations, faculty experiences, demand for similar courses, feedback from our community partners, and meeting our department objectives. It should be noted that our N**ew Geography Core Requirements** (expectations for every major, minor, and BIS student) will include 1-3 hours of Field Experience, at least one class with a CEL designation, at least one class with a SUS designation, a techniques class, a research methods class, and a capstone. All of those are high impact and will now total more than half of what every geography student takes!

E. Assessment Plan

Please update the Assessment Plan for your department displayed on the assessment site: http://www.weber.edu/portfolio/departments.html. Keep in mind that reporting will be done biennially instead of annually; that should be reflected in your assessment plan. Please ensure that Gen Ed courses are assessed/reported at least twice during a standard program review cycle.

A complete plan will include a list of courses from which data will be gathered and the schedule, as well as an overview of the assessment strategy the department is using (for example, portfolios, or a combination of Chi assessment data and student survey information, or industry certification exams, etc.), and plans for continuous improvement.

Assessment plan:

When core courses (including General Education courses with prefix) will be assessed:

Core required courses for majors (and Gen. Ed. Courses)	Completed 2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
GEOG 1000 PS Natural Environments of the Earth	X		X		X		X	
GEOG 1300 SS/DV Places and Peoples of the World		X		X		X		X
GEOG 1500 (was 1400) PS Science of Global Warming…			X		X		X	
GEOG 1520 SS/DV Geography of US & Canada		X		X		X		X
GEOG 3600 (soon to be 3890) Quantitative (Research) Methods	X		X		X		X	
GEOG 4990 (Senior) Research Seminar		X		X		X		X

How core courses will be assessed:

Core Geography courses offered (including Gen. Ed. courses)	Current number of sections offered/year	Number of sections to be assessed	Assessment approaches to be used*	Common assessment tool or will it vary from section to section?

		Fall	Spring		
PS1000 Natural Environments	16	4	4	Exam Questions	Standard set of questions from Learning Outcomes
SS1300 Places & Peoples	12	3	3	Exam Questions	Standard set of questions from Learning Outcomes
PS1400 (now 1500) Science of Global Warming	1		1	Exam Questions	Standard set of questions from Learning Outcomes
SS1520 Geography of US & Canada	8	2	2	Exam Questions	Standard set of questions from Learning Outcomes
GEOG 3600 (3890) Quantitative Methods	1		1	Exams and assignments	Only one section offered
GEOG 4990 Research Seminar	1	1		Assignments, senior thesis research papers	Only one section offered

***Assessment approaches:**

Possible approaches include (but are not limited to):

- A standard set of Exam Questions that assess general education and departmental learning outcomes. They will be based on the essential core content developed by faculty. These are to be delivered each semester, and tracked through Chi-tester.
- Homework assignments, Research papers, Journals or Reflection papers, Field work, Surveys, Data collection, Statistical and/or Spatial Analysis, Map Design and Creation, Presentations, Portfolios, Service Learning, and Graduate Exit Interviews.

Plan Overview:

As part of outcomes assessments for General Education courses in geography (GEOG 1000, GEOG 1300, GEOG 1500, and GEOG 1520), full time faculty have collectively crafted a standardized set of topics and skills that we expect all instructors (full-time and adjunct) to deliver whenever those courses are offered. For example, in GEOG 1000, students should always be exposed to Plate Tectonics, Biogeographic Processes, Weather and Atmospheric Dynamics, Geomorphology, the Hydrologic Cycle, Human-Induced Climate Change, Soils, Concepts of Sustainability, the Scientific Method, etc. This will insure that any student who takes a general education class in our department (whether on campus, off campus, at night, online, or in person), will have been exposed to what the geographic community widely considers the standards of the discipline. What we expect students to know will be consistent with the **General Education Course learning outcomes** and objectives as well as our **Departmental Learning Objectives**. A set of standard exam questions only will form the basis of our assessment, and will be tied to outcomes. Assessment methods will vary from course to course as noted in the Assessment Plan matrix above only for non-general education classes. The assessment of introductory level General Education Courses will be based solely on analysis of individual test item results. We chose a minimum of 70% on scores for test

items as the bottom threshold for demonstrating mastery since the lowest grade accepted for the geography major is a C-, or 70% (soon to be raised to a minimum of a C). Exam copies with assessment results will be kept by the department chair and/or with the instructor who taught the course along with other evidence of learning "artifacts" as part of program review documentation. Once fully deployed, we can gather the question results through Chi-Tester in every section and in every semester.

The two required **core upper division geography courses** (also soon to change and grow) will be assessed as part of an ongoing process using more diverse methods (exams, research papers and projects, and homework assignments) by individual faculty who typically teach these courses (see Assessment Plan matrix above). Upper-division geography elective courses will also be assessed periodically, although the department's focus at this time is on general education classes and our common core geography courses.

F. Report of assessment results for the most previous academic year:

There are varieties of ways in which departments can choose to show evidence of learning. This is one example. The critical pieces to include are 1) learning outcome being assessed, 2) method(s) of measurement used, 3) threshold for 'acceptable – that is, the target performance, 4) actual results of the assessment, 5) interpretation/reflection on findings 6) the course of action to be taken based upon the interpretation, and 7) how that action will be evaluated.

A. Evidence of Learning: Courses within the Major
(**this is a sample page for purpose of illustration only**; a blank template can be found on the next page)

Sample only - Evidence of Learning: Courses within the Major – **Sample only**						
Measurable Learning Outcome: Students will…	Method of Measurement*	Target Performance	Actual Performance	Interpretation of Findings	Action Plan/Use of Results	"Closing the Loop"
Learning Outcome 1:	Measure 1: A set of 10 multiple choice questions from Exam 1 Measure 2: Student presentations	Measure 1: 85% of students will score 80% or better on 10 questions Measure 2: Using a rubric to assess the presentation, 90% of students will achieve a score of 75% or above.	Measure 1: 93% of students scored 80% or better on 10 questions Measure 2: the threshold was met, but students performed poorly (avg. = 1.8) on one criterion.	Measure 1: Students successfully demonstrated interpretation skills Measure 2: unclear where the issue is	Measure 1: No curricular or pedagogical changes needed at this time Measure 2: provide better explanation of the expectations for this criterion and re-assess.	Analyze the performance on the lower-scoring criterion and determine if clarity of instruction improved student performance.
Learning Outcome 2:	Measure 1: Results of standardized test Measure 2: Students are surveyed about their perceived competence of the outcome	Measure 1: 85% of students will score at or above the national average. Measure 2: On a 5 point Likert scale, 90% of students will indicate 4 or 5	Measure 1: 90% of students scored above national average Measure 2: Less than half of students felt competence with this outcome.	Measure 1: Students successfully demonstrated competence; lowest average score was in transfer of knowledge, where only 69% of questions were answered correctly. Measure 2: Students tested well, but their perceived competence was lower than expected.	Measure 1: Faculty agree to include review of transfer in all related courses; this outcome will be reassessed during next review Measure 2: Students will be given more opportunity to practice this skill with immediate feedback.	

*Can be a mix of direct and indirect measures, but at least one measure must be direct

Evidence of Learning Worksheet: **Courses within the Major – Copy as needed (see appendix for alternative format)**

Course: Course [GEOG 3600] Quantitative Research Semester taught: Spring 2018, 2019 Sections included: 2

Course: **GEOG 3600**

<table>
<tr><td>Program Outcome 1</td><td colspan="3">Required Core Course for all Geography Majors.</td></tr>
<tr><td>Aligned Course Outcome(s):</td><td colspan="3">• Demonstrate a broad conceptual understanding of research methods used in geography
• Demonstrate critical thinking skills – especially in experimental design and analysis
• Demonstrate knowledge of ethical concerns in research
• Write a research proposal in your area of interest in the field geography
• Integrate knowledge of statistics into research design</td></tr>
<tr><td>Method(s) of measurement:</td><td colspan="3"><table>
<tr><td>Assignments</td><td>14 total</td><td>55%</td></tr>
<tr><td>Attendance and Participation</td><td>Attendance will be taken</td><td>10%</td></tr>
<tr><td>Final Full Written Proposal</td><td>OUR proposal submittal</td><td>20%</td></tr>
<tr><td>Proposal Presentation</td><td>Oral presentation in class</td><td>15%</td></tr>
<tr><td>Total:</td><td></td><td>100%</td></tr>
</table></td></tr>
<tr><td>Target Performance:</td><td colspan="3">Development and finalization of a research proposal during the semester.</td></tr>
<tr><td>Actual Performance:</td><td colspan="3">Developed and finalized a research proposal during the semester.</td></tr>
<tr><td>Interpretation/Reflection on findings:</td><td colspan="3">Student Proposals with respect to significance, appropriateness, time invested, and overall quality, varied widely.</td></tr>
<tr><td>Action Plan/Use of Results:</td><td colspan="3">This is to be expected in a class of 15-20 majors with differing abilities and ambitions.</td></tr>
<tr><td>Intended evaluation of plan (closing the loop):</td><td colspan="3">The department of geography is overhauling this course to make it a full range of research methods and not just quantitative methods. This overhaul is making its way</td></tr>
</table>

	through the Curriculog process. It will result in a new course number (GEOG 3890), and the old number 3600 will be retired.

Course: Course [GEOG 4990] Senior Seminar Semester taught: Fall 2018, 2019 Sections included: 2

Course: **GEOG 4990**

Program Outcome 1	Required Core Course for all Geography Majors.
Aligned Course Outcome(s):	• Further develop your critical thinking skills through course participation and assignments. • Refine oral and written communication skills through regular class discussions and assignments. • Explore what opportunities exist following graduation. • Understand what professional documents that will be needed following graduation (e.g., resume, cover letters, curriculum vitae).
Method(s) of measurement:	Complete and Present Senior Thesis Project
Target Performance:	• Generate clear and thoughtful analytical commentary in the form of dialogue and writing. • Conduct in-depth analysis of and explore possible solutions to geographic problems while demonstrating effective written and oral communication skills – this will be accomplished through the "Senior Thesis" project. • Develop a plan for the next step following graduation. • Craft a solid resume that will be utilized after graduation, plus learn the art of writing effective cover letters and curriculum vitae.
Actual Performance:	A Completed and Presented Senior Thesis Project

Interpretation/Reflection on findings:	Student Projects with respect to significance, appropriateness, time invested, and overall quality, varied widely.
Action Plan/Use of Results:	This is to be expected in a class of 15-20 majors with differing abilities and ambitions.
Intended evaluation of plan (closing the loop):	The department of geography continually monitors our Senior Seminar as it prepares students for careers, graduate school, or whatever future they may choose.

*Direct and indirect: at least one measure per objective must be a direct measure.

Additional narrative (optional – use as much space as needed):

c. Evidence of Learning: General Education Courses

(Area-specific EOL grids can be found at http://weber.edu/oie/Complete_Rubrics.html; they can replace this page.)

General Education Social Science Core Course: GEOG 1300, Places and People of the World.

(see explanation and methodology outlined after the table).

Outcome	**Measurable Learning Outcome** Students will demonstrate	**Method of Measurement** Direct and Indirect Measures*	**Threshold**	**Findings Linked to Learning Outcomes**	**Interpretation of Findings**	**Action Plan/Use of Results**

	their mastery of the skill by:					
Gen ED SS Outcome 1: "Interactions between individuals and society" Students will describe how individuals and groups influence and are influenced by social contexts, institutions, physical environments and/or global process.	Students will strongly understand the connections between societal institutions, their natural environments, and their actions as individuals and members of larger groups.	Measured through responses to exam questions in Chi Tester.	Students need to score better than 70% on average on the sample questions over the three semesters surveyed.	74.9% of the students chose the correct multiple choice answer from a possible 5 responses. These data represent 7 sections over three semesters (194 of 259 students answered correctly).	Students successfully demonstrated understanding of the connection between humans and their environment objective.	No curricular or pedagogical changes needed at this time.
Gen ED SS Outcome 2: "Application of concepts, theories, and methods". Students will apply basic social science concepts, theories, and/or	Faculty will expose students to the most common Social Science concepts and methods through case studies or examples.	Measured through responses to exam questions in Chi Tester.	Students need to score better than 70% on average on the sample questions over the three semesters surveyed.	76.4% of the students chose the correct multiple choice answer from a possible 4 responses. These data	Students successfully demonstrated understanding of the theory and methods objective.	No curricular or pedagogical changes needed at this time.

methods to a particular issue and identify factors that influence change.				represent 7 sections over three semesters (198 of 259 students answered correctly).		
Gen ED SS Outcome 3: "Diverse Perspectives" Students will identify an argument about a social phenomenon and understand alternative explanations.	Students will experience "diverse perspectives" though immigration, politics, cultural variety, and change.	Measured through responses to exam questions in Chi Tester.	Students need to score better than 70% on average on the sample questions over the three semesters surveyed.	77.6% of the students chose the correct multiple choice answer from a possible 5 responses. These data represent 7 sections over three semesters (201 of 259 students answered correctly).	Students somewhat successfully demonstrated understanding of the diversity objective.	No curricular or pedagogical changes needed at this time.

*At least one measure per objective must be a direct measure; indirect measures may be used to supplement direct measure(s).
It is proposed that these assessment results will be reviewed by the General Education Improvement & Assessment Committee, who will provide feedback on evidence of continuous improvement.

Additional narrative (optional – use as much space as needed):

The above assessment of GEOG 1300 looked at 7 sections over 3 semesters, and surveyed progress for 259 students. As noted several places in this document, for a variety of reasons, geography has not been able to effectively assess every section of 1300 taught. To that end, the department is busy revising its core essential content for each gen. ed. class, crafting new questions to assess that content (couched in terms of the general education physical and social science learning outcomes), and preparing to deploy both in every single section we offer.
The assessment detailed below covers 3 sections of 1520 over 3 semesters, and surveyed progress for 104 students. We've been better at assessing more sections of this class, but there is work to be done as noted above.

General Education Social Science Core Course: GEOG 1520, Geography of the United States and Canada.

(see explanation and methodology outlined above).

Outcome	**Measurable Learning Outcome** Students will demonstrate their mastery of the skill by:	**Method of Measurement** Direct and Indirect Measures*	**Threshold**	**Findings Linked to Learning Outcomes**	**Interpretation of Findings**	**Action Plan/Use of Results**
Gen ED SS Outcome 1: "Interactions between individuals and society" Students will describe how individuals and groups influence and are influenced by social contexts, institutions, physical environments	Students will strongly understand the connections between societal institutions, their natural environments, and their actions as individuals and members of larger groups.	Measured through responses to exam questions in Chi Tester.	Students need to score better than 70% on average on the sample questions over the three semesters surveyed.	81.7% of the students chose the correct multiple choice answer from a possible 3 responses over three semesters (85 of 104 answered responded correctly)	Students successfully demonstrated understanding of the connection between humans and their environment objective.	No curricular or pedagogical changes needed at this time.

and/or global process.						
Gen ED SS Outcome 2: "Application of concepts, theories, and methods". Students will apply basic social science concepts, theories, and/or methods to a particular issue and identify factors that influence change.	Faculty will expose students to the most common Social Science concepts and methods through case studies or examples.	Measured through responses to exam questions in Chi Tester.	Students need to score better than 70% on average on the sample questions over the three semesters surveyed.	84.6% of the students chose the correct multiple choice answer from a possible 4 responses over three semesters. (88 of 104 answered responded correctly)	Students somewhat successfully demonstrated understanding of the theory and methods objective.	No curricular or pedagogical changes needed at this time.
Gen ED SS Outcome 3: "Diverse Perspectives" Students will identify an argument about a social	Students will experience "diverse perspectives" though immigration, politics, cultural	Measured through responses to exam questions in Chi Tester.	Students need to score better than 70% on average on the sample questions	78.8% of the students chose the correct multiple choice answer from a	Students somewhat successfully demonstrated understanding of the diversity objective.	No curricular or pedagogical changes needed at this time.

phenomenon and understand alternative explanations.	variety, and change.		over the three semesters surveyed.	possible 3 responses over three semesters. (82 of 104 answered responded correctly)		

General Education Physical Science Core Course: GEOG 1000 PS Natural Environments of the Earth.

(see explanation and methodology outlined after the table).

Physical Science Gen Ed Learning Goal Students will demonstrate understanding of:	**Measurable Learning Outcome & Threshold** Students will demonstrate their understanding by:	**Method of Measurement** Direct and Indirect Measures	**Findings Linked to Learning Outcomes**	**Interpretation of Findings**	**Action Plan/Use of Results**
PS1: Organization of Systems	The universe is scientifically understandable in terms of interconnected systems. The systems evolve over time according to basic physical laws. Integrated at a minimum 70% mastery level.	A set of 5 multiple choice questions from Exam 1	79-87% of students scored 70% or better on 5 questions (Average from 5 sections)	Students successfully demonstrated understanding of the nature of science objective	No curricular or pedagogical changes needed at this time

GE Learning Goal	**Meas. Learn. Outcome & Threshold**	**Method of Measure**	**Findings**	**Interpretation**	**Action Plan**
PS2: Matter	Matter comprises an important component of the universe,	A set of 3 multiple choice questions from Exams 1, 2 or 3	68-77% of students scored 70% or better on 3 questions	Students successfully demonstrated understanding of the	No curricular or pedagogical changes

	and has physical properties that can be described over a range of scales. Integrated at a minimum 70% mastery level.		(Average from 5 sections)	integration of science objective	needed at this time

GE Learning Goal	**Meas. Learn. Outcome & Threshold**	**Method of Measure**	**Findings**	**Interpretation**	**Action Plan**
PS3: Energy	Interactions within the universe can be described in terms of energy exchange and conservation. Integrated at a minimum 70% mastery level.	A set of 5 multiple choice questions from Exam 2 or 3	59-79% of students scored 70% or better on 5 questions (Average from 5 sections)	Students successfully demonstrated understanding of the science and society objective	No curricular or pedagogical changes needed at this time

PS4: Forces	Equilibrium and change are determined by forces acting at all organizational levels. Integrated a minimum 70% mastery level.	A set of 3 multiple choice questions from Exams 2 or 3	57-79% of students scored 70% or better on 3 questions (Average from 5 sections)	Students successfully demonstrated understanding of the problem solving & data analysis objective	No curricular or pedagogical changes needed at this time, however, students are encouraged to take a statistics course (required for geography majors)

Gen Ed Learning Goal Students will demonstrate understanding of:	**Measurable Learning Outcome & Threshold** Students will demonstrate their understanding by:	**Method of Measurement** Direct and Indirect Measures	**Findings Linked to Learning Outcomes**	**Interpretation of Findings**	**Action Plan/Use of Results**
Nature of Science. Scientific knowledge is based on evidence	Students will be able to identify explanations that are	A set of 3 multiple choice questions from Exam 1	87-91% of students scored 70% or	Students successfully demonstrated understanding of the nature of	No curricular or pedagogical changes

Gen Ed Learning Goal Students will demonstrate understanding of:	**Measurable Learning Outcome & Threshold** Students will demonstrate their understanding by:	**Method of Measurement** Direct and Indirect Measures	**Findings Linked to Learning Outcomes**	**Interpretation of Findings**	**Action Plan/Use of Results**
that is repeatedly examined, and can change with new information.	scientific and differentiate from those that are not scientific at a minimum 70% mastery level.		better on 5 questions	science objective	needed at this time

GE Learning Goal	**Meas. Learn. Outcome & Threshold**	**Method of Measure**	**Findings**	**Interpretation**	**Action Plan**
Integration of Science All natural phenomena are interrelated and share basic organizational principles. Scientific explanations obtained from different disciplines should be cohesive & integrated.	Students will be able to identify how scientific explanations are cohesive & integrated at a minimum 70% mastery level.	A set of 3 multiple choice questions from Exams 1, 2 or 3	77-89% of students scored 70% or better on 3 questions (Average from 5 sections)	Students successfully demonstrated understanding of the integration of science objective	No curricular or pedagogical changes needed at this time

Science and Society The study of science provides explanations that have significant impact on society, including technological advancements, improvement of human life, and better understanding of human and other influences on the earth's environment.	Students will be able to identify how scientific explanations have an impact on society at a minimum 70% mastery level.	A set of 3 multiple choice questions from Exam 2 or 3	69-70% of students scored 70% or better on 5 questions	Students successfully demonstrated understanding of the science and society objective	No curricular or pedagogical changes needed at this time

Problem Solving & Data Analysis Science relies on empirical data, and such data must be analyzed, interpreted, and generalized in a rigorous manner.	Students will be able to analyze, and interpret data in order to identify generalizations at a minimum 70% mastery level.	A set of 3 multiple choice questions from Exams 2 or 3	66-67% of students scored 70% or better on 3 questions	Students successfully demonstrated understanding of the problem solving & data analysis objective	No curricular or pedagogical changes needed at this time, however, students are encouraged to take a statistics course (required for geography majors)

Additional narrative (optional – use as much space as needed):

Much like the other Gen. Ed. assessments, this above assessment of GEOG 1000 looked at multiple sections over 3 semesters, and surveyed progress for students. The report is slightly different as the percents reflect a range covering three exams administered over 3 semesters. In all cases, the average of the range exceeded our 70% threshold.
As noted several places in this document, for a variety of reasons, geography has not been able to effectively assess every section of 1000 taught. To that end, the department is busy revising its core essential content for each gen. ed. class, crafting new questions to assess that content (couched in terms of the general education physical and social science learning outcomes), and preparing to deploy both in every single section we offer.
The assessment detailed below covers 3 sections of 1500 (was 1400) over 3 semesters, and surveyed progress for students. We've been better at assessing more sections of this class, but there is work to be done as noted above.

General Education Physical Science Core Course: GEOG 1500 (1400) PS The Science of Global Warming.
(see explanation and methodology outlined above).

Physical Science Gen Ed Learning Goal Students will demonstrate understanding of:	**Measurable Learning Outcome & Threshold** Students will demonstrate their understanding by:	**Method of Measurement** Direct and Indirect Measures	**Findings Linked to Learning Outcomes**	**Interpretation of Findings**		**Action Plan/Use of Results**
PS1: Organization of Systems	The universe is scientifically understandable in terms of interconnected systems. The systems evolve over time according to basic physical laws. Integrated at a minimum 70% mastery level.	A set of 5 multiple choice questions from Exam 1	80-89% of students scored 70% or better on 5 questions (Average from 5 sections)	Students successfully demonstrated understanding of the nature of science objective		No curricular or pedagogical changes needed at this time

GE Learning Goal	**Meas. Learn. Outcome & Threshold**	**Method of Measure**	**Findings**	**Interpretation**	**Action Plan**
PS2: Matter	Matter comprises an important component of the universe,	A set of 3 multiple choice questions	72-88% of students scored 70% or better on 3 questions	Students successfully demonstrated understanding of the	No curricular or pedagogical changes needed at this time

	and has physical properties that can be described over a range of scales. Integrated at a minimum 70% mastery level.	from Exams 1, 2 or 3	(Average from 5 sections)	integration of science objective	

GE Learning Goal	**Meas. Learn. Outcome & Threshold**	**Method of Measure**	**Findings**	**Interpretation**	**Action Plan**
PS3: Energy	Interactions within the universe can be described in terms of energy exchange and conservation. Integrated at a minimum 70% mastery level.	A set of 5 multiple choice questions from Exam 2 or 3	86-92% of students scored 70% or better on 5 questions (Average from 5 sections)	Students successfully demonstrated understanding of the science and society objective	No curricular or pedagogical changes needed at this time

PS4: Forces	Equilibrium and change are determined by forces acting at all organizational levels. Integrated a minimum 70% mastery level.	A set of 3 multiple choice questions from Exams 2 or 3	74-85% of students scored 70% or better on 3 questions (Average from 5 sections)	Students successfully demonstrated understanding of the problem solving & data analysis objective	No curricular or pedagogical changes needed at this time, however, students are encouraged to take a statistics course (required for geography majors)
Gen Ed Learning Goal Students will demonstrate understanding of:	**Measurable Learning Outcome & Threshold** Students will demonstrate their understanding by:	**Method of Measurement** Direct and Indirect Measures	**Findings Linked to Learning Outcomes**	**Interpretation of Findings**	**Action Plan/Use of Results**
Nature of Science. Scientific knowledge is based on evidence that is repeatedly examined, and can change with new information.	Students will be able to identify explanations that are scientific and differentiate from those that are not scientific at a minimum 70% mastery level.	A set of 3 multiple choice questions from Exam 1	64-77% of students scored 70% or better on 5 questions	Students successfully demonstrated understanding of the nature of science objective	No curricular or pedagogical changes needed at this time

GE Learning Goal	Meas. Learn. Outcome & Threshold	Method of Measure	Findings	Interpretation	Action Plan
Integration of Science All natural phenomena are interrelated and share basic organizational principles. Scientific explanations obtained from different disciplines should be cohesive & integrated.	Students will be able to identify how scientific explanations are cohesive & integrated at a minimum 70% mastery level.	A set of 3 multiple choice questions from Exams 1, 2 or 3	76-92% of students scored 70% or better on 3 questions (Average from 5 sections)	Students successfully demonstrated understanding of the integration of science objective	No curricular or pedagogical changes needed at this time

Science and Society The study of science provides explanations that have significant impact on society, including technological advancements, improvement of human life, and better understanding of	Students will be able to identify how scientific explanations have an impact on society at a minimum 70% mastery level.	A set of 3 multiple choice questions from Exam 2 or 3	77-79% of students scored 70% or better on 5 questions	Students successfully demonstrated understanding of the science and society objective	No curricular or pedagogical changes needed at this time

human and other influences on the earth's environment.					

Problem Solving & Data Analysis Science relies on empirical data, and such data must be analyzed, interpreted, and generalized in a rigorous manner.	Students will be able to analyze, and interpret data in order to identify generalizations at a minimum 70% mastery level.	A set of 3 multiple choice questions from Exams 2 or 3	74-88% of students scored 70% or better on 3 questions	Students successfully demonstrated understanding of the problem solving & data analysis objective	No curricular or pedagogical changes needed at this time, however, students are encouraged to take a statistics course (required for geography majors)

Appendix A

Most departments or programs receive a number of recommendations from their Five/Seven-Year Program Review processes. This page provides a means of updating progress towards the recommendations the department/program is acting upon.

Date of Program Review: 2016-17	Recommendation	Progress Description
Recommendation 1	Text of recommendation	#### +1 progress
Better Advising	Carefully consider practices around advising, with special attention to the needs of students who are close to graduation.	#### +2 progress
		#### +3 progress
		#### +4 progress
Recommendation 2	Text of recommendation	#### +1 progress
Better Scheduling	Assure that courses are available for students to graduate in a timely manner.	#### +2 progress
		#### +3 progress
		#### +4 progress
Recommendation 3	Text of recommendation	#### +1 progress
Better Planning	Attempt to develop a course rotation schedule that will aid students in planning their long-term schedules.	#### +2 progress
		#### +3 progress
Recommendation 4	Text of recommendation	#### +4 progress
Better Assessment	Include elective courses in your assessment processes.	

Additional narrative:

The Geography Department completed its 5-year Review in 2016-17, and the Program Review by the Office of Institutional Effectiveness was delivered September 29, 2017. Thus, we are in second year of implementing these recommendations. **For Recommendation 1**, we've committed department-wide to interacting with students especially during the registration period. We've also executed Starfish practices to better track student progress, and strongly encourage our majors to meet with the department Chair at least once per year.

For **Recommendation 2**, we've done a much better job of scheduling our classes with the goal of reducing conflicts and easing a student's journey through the curriculum. For example, we balance our Gen. Ed. offering between day, night, hybrid, and online classes, and between the main Ogden campus, Davis, and our satellite campuses. We also try to balance between fall, spring, and summer classes. And we make sure that none of our upper division courses are offered at the same time nor conflict with related classes in the Geosciences, a department where many of our students take coursework. This, it should be noted, has been a tremendous scheduling trial.
These efforts flow naturally into **Recommendation 3**, better planning. To that end, we hope to develop a very clear and effective grad. map. **Recommendation 4** has been our largest challenge. With three faculty half-time in the department and one now the full-time Dean, we've had to rely heavily on Adjunct Instructors. They, understandably, are much less invested in assessment. Happily, we've recently hired two new full-time Instructors. They are both great assets to the department, but again, are not as committed to the long-term health of the geography department and its students. Thus, assessment of electives and even some gen. ed. classes taught by adjuncts have not always been completed. To that end, the department is busy revising its core essential content for each gen. ed. class, crafting new questions to assess that content (couched in terms of the general education physical and social science learning outcomes), and preparing to deploy both in every single section we offer.

Appendix B

Please provide the following information about the full-time and adjunct faculty contracted by your department during the last academic year (summer through spring). Gathering this information each year will help with the headcount reporting that must be done for the final Five Year Program Review document that is shared with the State Board of Regents.

Faculty Headcount	2017-18	2018-19
With Doctoral Degrees (Including MFA and other terminal degrees, as specified by the institution)	6	7
Full-time Tenured	5	6
Full-time Non-Tenured (includes tenure-track)	2	1
Part-time and adjunct	0	0
With Master's Degrees	6	6
Full-time Tenured		
Full-time Non-Tenured		
Part-time and adjunct	6	6
With Bachelor's Degrees	0	0
Full-time Tenured		

Full-time Non-tenured		
Part-time and adjunct	0	0
Other		
Full-time Tenured		
Full-time Non-tenured		
Part-time	0	0
Total Headcount Faculty	13	13
Full-time Tenured	5	6
Full-time Non-tenured	2	1
Part-time	6	6

Appendix C – alternative format for Evidence of Learning Reporting

Course:

Program Outcome 1	
Aligned Course Outcome(s):	
Method(s) of measurement:	
Target Performance:	
Actual Performance:	
Interpretation/Reflection on findings:	
Action Plan/Use of Results:	
Intended evaluation of plan (closing the loop):	

Please respond to the following questions.

1) First year student success is critical to WSU's retention and graduation efforts. We are interested in finding out how departments support their first-year students. Do you have mechanisms and processes in place to identify, meet with, and support first-year students? Please provide a brief narrative focusing on your program's support of new students:
    a. Any first-year students taking courses in your program(s).

       The vast majority of first-year students that come through the geography department, do so as General Education students in our four Social and Physical Science Gen. Ed. classes (1000, 1300, 1500, 1520). The department spends a good deal of time helping students succeed in those classes, as well as encouraging them to take other geography classes and consider the discipline for a major or minor. We actively invite those students to presentations, film screenings, field opportunities, and especially to Geography club events.

    b. Students declared in your program(s), whether or not they are taking courses in your program(s)

       New students to our program (majors, minors, BIS, and certificate seeking students) benefit from the full range of our attention as a department. Regular advisement, tutoring, field and travel opportunities, scholarship help, support for internships, career preparation, technical skills, and graduate school are widely encouraged. We often bring back successful alumni to interact with students, invite them to participate in undergraduate research, and strongly support their quest for financial assistance, conference presentation, and meaning field experiences. And, while we struggle at this, we actively try to follow our alumni after graduation.

2) A key component of sound assessment practice is the process of 'closing the loop' – that is, following up on changes implemented as a response to your assessment findings, to determine the impact of those changes/innovations. It is also an aspect of assessment on which we need to improve, as suggested in our NWCCU mid-cycle report. Please describe the processes your program has in place to 'close the loop'.

Much of this, really, is detailed above. In response to our formal outside department review, yearly assessment, interviews with alumni, graduate exit surveys, interaction with other geography chairs nationwide, and our own faculty discussions, the department is continuously looking for ways to "close the loop."

For example, we are (again) revising the core concepts for our Gen. Ed. classes and crafting better questions to measure those outcomes. After an exhaustive research and deliberation, we've changed our department name to **Geography, Environment and Sustainability**, and are completely revising our curriculum: emphases or tracks, course titles and descriptions, electives, and content. We've just begun a thorough look at "KSAs" or the **Knowledge, Skills, and Aptitudes** essential for any student to be a successful and meaningful geographer after they graduate. It is, to understate the obvious, a work in progress.

Glossary

Student Learning Outcomes/Measurable Learning Outcomes

The terms 'learning outcome', 'learning objective', 'learning competency', and 'learning goal' are often used interchangeably. Broadly, these terms reference what we want students to be able to do AFTER they pass a course or graduate from a program. For this document, we will use the word 'outcomes'. Good learning outcomes are specific (but not too specific), are observable, and are clear. Good learning outcomes focus on skills: knowledge and understanding; transferrable skills; habits of mind; career skills; attitudes and values.

- Should be developed using action words (if you can see it, you can assess it).
- Use compound statements judiciously.
- Use complex statements judiciously.

Curriculum Grid

A chart identifying the key learning outcomes addressed in each of the curriculum's key elements or learning experiences (Suskie, 2019). A good curriculum:

- Gives students ample, diverse opportunities to achieve core learning outcomes.
- Has appropriate, progressive rigor.
- Concludes with an integrative, synthesizing capstone experience.
- Is focused and simple.
- Uses research-informed strategies to help students learn and succeed.
- Is consistent across venues and modalities.
- Is greater than the sum of its parts.

Target Performance (previously referred to as 'Threshold')

The level of performance at which students are doing well enough to succeed in later studies (e.g., next course in sequence or next level of course) or career.

Actual Performance

How students performed on the specific assessment. An average score is less meaningful than a distribution of scores (for example, 72% of students met or exceeded the target performance, 5% of students failed the assessment).

Closing the Loop

The process of following up on changes made to curriculum, pedagogy, materials, etc., to determine if the changes had the desired impact.

Continuous Improvement
An idea with roots in manufacturing, that promotes the ongoing effort to improve. Continuous improvement uses data and evidence to improve student learning and drive student success.

Direct evidence
Evidence based upon actual student work; performance on a test, a presentation, or a research paper, for example. Direct evidence is tangible, visible, and measurable.

Indirect evidence
Evidence that serves as a proxy for student learning. May include student opinion/perception of learning, course grades, measures of satisfaction, participation. Works well as a complement to direct evidence.

HIEE – High Impact Educational Experiences
Promote student learning through curricular and co-curricular activities that are intentionally designed to foster active and integrative student engagement by utilizing multiple impact strategies.