

Department of Geography
Bachelor of Science in Geography
Plan for Assessment of Student Learning Outcomes
The University of New Mexico

A. College, Department and Date

1. College: *College of Arts & Sciences*
2. Department: *Department of Geography and Environmental Studies*
3. Date: *19 December 2013*

B. Academic Program of Study

B.S. Geography

C. Contact Person for the Assessment Plan

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D. Broad Program Goals & Measurable Student Learning Outcomes

1. Broad Program Learning Goals for this Degree Program

- A. Students will develop an ability to see meaning in the arrangement of things in space.
- B. Students will become geographical problem-solvers capable of using qualitative, quantitative and/or spatial methods of research appropriate to their level of training.
- C. Students will develop an ability to see meaningful relationships between people, places, and the environment.
- D. Students will become clear and effective communicators.
- E. Students will gain preparedness for professional careers in geography and allied fields.

2. List of Student Learning Outcomes (SLOs) for this Degree Program

- A.1. Students will be able to interpret geographic patterns using core geographic concepts.
- A.2. Students will be able to locate major physical and human geographic features on a world map.
- B.1. Students will be able to identify the geographic contexts relevant to an inquiry.
- B.2. Students will be able to acquire and manipulate data relevant to a geographic inquiry.
- B.3. Students will be able to assess the results of a data-driven geographical inquiry.
- C.1. Students will be able to identify, collect, and process digital spatial data using industry-standard tools.
- C.2. Students will be able to employ appropriate geospatial analysis methods and interpret the results.
- D.1. Students will be able to communicate clearly and effectively in an oral format.
- D.2. Students will be able to communicate clearly and effectively in a written format.
- D.3. Students will be able to communicate clearly and effectively with geovisualization methods, including map composition.
- E.1. Students will be able to prepare an acceptable, entry-level professional résumé.

E. Assessment of Student Learning Three-Year Plan

1. Priority Student Learning Outcomes

Over the next three years (AY 2014-2015 through AY 2016-2017), the Department of Geography and Environmental Studies will assess all of the learning outcomes listed above. These program outcomes are responsive to UNM’s broad student learning goals, as shown in the following table.

University of New Mexico Student Learning Goals				
Program SLOs	Knowledge	Skills	Responsibility	Program SLO is conceptually different from university goals.
A.1. Students will be able to interpret geographic patterns using core geographic concepts.	X	X		
A.2. Students will be able to locate major physical and human geographic features on a world map.	X	X		
B.1. Students will be able to identify the geographic contexts relevant to an inquiry.	X	X	X	
B.2. Students will be able to acquire and manipulate data relevant to a geographic inquiry.	X	X	X	
B.3. Students will be able to assess the results of a data-driven geographical inquiry.		X	X	
C.1. Students will be able to identify, collect and process digital spatial data using industry-standard tools.	X	X		
C.2. Students will be able to employ appropriate geospatial analysis methods and interpret the results.		X	X	
D.1. Students will be able to communicate clearly and effectively in an oral format.		X	X	
D.2. Students will be able to communicate clearly and effectively in a written format.		X	X	
D.3. Students will be able to communicate clearly and effectively in a cartographic format.		X	X	
E.1. Students will be able to prepare an acceptable, entry-level professional résumé.		X	X	

2. How will learning outcomes be assessed?

Learning outcomes under goals A, B, C, D, and E will be assessed using course assignments from specific, required courses as evidence of learning. Although there are two Bachelor's programs (B.S. and B.A.) within the department, most assessment measures will not differentiate students in the two programs.

Note: Program Assessment for the B.S. in Geography will include evidence from all students who graduate from the program during each three-year assessment cycle.

MEASUREMENT PROCESS #1

Outcomes:

- A.1. Students will be able to interpret geographic patterns using core geographic concepts.
- A.2. Students will be able to locate major physical and human geographic features on a world map.

Measurement Process:

- i. Assessment of these outcomes will use a multiple-choice pre-test administered at the beginning of Geog 471, the senior capstone that is required of all undergraduate majors at the beginning of the senior academic year. This pre-test will be embedded in the regular grade structure of Geog 471 to provide a standard performance incentive.
- ii. Responses for each assessment question will be evaluated independently, because each question pertains to specific disciplinary topics. Both B.S. and B.A. students will be evaluated using this measurement process, and assessment results will not differentiate B.S. and B.A. students.
- iii. This is a direct measurement.
- iv. The program performance target for these outcomes is defined as correct answers given by 75% of students for each test question, which will be evaluated independently.

MEASUREMENT PROCESS #2

Outcomes:

- B.1. Students will be able to identify the geographic contexts relevant to an inquiry.
- B.2. Students will be able to acquire and manipulate data relevant to a geographic inquiry.
- B.3. Students will be able to assess the results of a data-driven geographical inquiry.

Measurement Process:

- i. The capstone course is typically organized around student development and completion of a senior research project, which is presented in both oral and written formats at the end of the course. The project will be considered as evidence of learning in the assessment of all three of these outcomes. Each semester, the Geog 471 instructor will assign an applied research project that will be oriented toward a geographic inquiry that can be answered via core methods in geographic analysis. This research assignment will be embedded in the regular grade structure of Geog 471 to provide a standard performance incentive.
- ii. Both B.S. and B.A. students will be evaluated using this measurement process, and assessment results will not differentiate B.S. and B.A. students.
- iii. This is a direct measurement.
- iv. The program performance target for these outcomes is defined as "acceptable" or better performance by 75% of students in Geog 471. The standards for "acceptable" are outlined in the attached rubric #1, which will be given to students in advance.

MEASUREMENT PROCESS #3

Outcomes:

- C.1. Students will be able to identify, collect and process digital spatial data using industry-standard tools.
- C.2. Students will be able to employ appropriate geospatial analysis methods and interpret the results.

Measurement Process:

- i. Assessment of this outcome will use student's final projects in GEOG 381L. This course is focused on the hands-on use of spatial-analytical techniques as applied to a topic of the student's choice. As part of this course, students need to identify, collect, process, analyze, and present digital spatial data relevant to a topic of the student's choice. Results of this project are presented in a designed map. This research assignment will be embedded in the regular grade structure of Geog 381L to provide a standard performance incentive.
- ii. Only B.S. students will be evaluated using this measurement process.
- iii. This is a direct measurement.
- iv. The program performance target for this outcome is defined as "acceptable" or better performance by 75% of graduating students. The standard for "acceptable" is defined in the attached rubric #2.

MEASUREMENT PROCESS #4

Outcome:

- D.1. Students will be able to communicate clearly and effectively in an oral format.

Measurement Process:

- i. Assessment of this outcome will use each student's oral presentation of the applied research project in Geog 471 as evidence of student learning. This oral presentation will be embedded in the regular grade structure of Geog 471 to provide a standard performance incentive.
- ii. Both B.S. and B.A. students will be evaluated using this measurement process, and assessment results will not differentiate B.S. and B.A. students.
- iii. This is a direct measurement.
- iv. The program performance target for this outcome is defined as "acceptable" or better performance by 75% of graduating students. The standard for "acceptable" is defined in the attached rubric #1, which will be given to students in advance.

MEASUREMENT PROCESS #5

Outcome:

- D.2. Students will be able to communicate clearly and effectively in a written format.

Measurement Process:

- i. Assessment of this outcome will use each student's written response to an assigned question in Geog 471 as evidence of student learning. Each student will be given one week to write a response to an assigned question shared by all students. This written response will be embedded in the regular grade structure of Geog 471 to provide a standard performance incentive.
- ii. Both B.S. and B.A. students will be evaluated using this measurement process, and assessment results will not differentiate B.S. and B.A. students.
- iii. This is a direct measurement.
- iv. The program performance target for this outcome is defined as "acceptable" or better performance by 75% of students in Geog 471. The standard for "acceptable" is defined in the attached rubric #3, which will be given to students in advance.

MEASUREMENT PROCESS #6

Outcome:

- D.3. Students will be able to communicate clearly and effectively with geovisualization methods, including map composition.

Measurement Process:

- i. Assessment of this outcome will use each student's response to an assigned problem in Geog 471 as evidence of student learning. Each student will be given one week to produce a geovisualization in

response to an assigned problem shared by all students. This response will be embedded in the regular grade structure of Geog 471 to provide a standard performance incentive.

- ii. Both B.S. and B.A. students will be evaluated using this measurement process, and assessment results will not differentiate B.S. and B.A. students.
- iii. This is a direct measurement.
- iv. The program performance target for this outcome is defined as “acceptable” or better performance by 75% of students in Geog 471. The standard for “acceptable” is defined in the attached rubric #1, which will be given to students in advance.

MEASUREMENT PROCESS #7

Outcome:

- E.1. Students will be able to prepare an acceptable, entry-level professional résumé.

Measurement Process:

- i. Assessment of this outcome will be conducted in Geog 471. Each student in this course will be required to locate an announcement entry-level professional position for which the student is qualified. The student will be required to prepare a professional résumé for this position, and submit the résumé and the announcement. The instructor of Geog 471 and one other departmental faculty member (by default, the Assessment Coordinator) will evaluate the résumé for its acceptability relative to the job announcement. This assignment will be embedded in the regular grade structure of Geog 471 to provide a standard performance incentive.
- ii. Both B.S. and B.A. students will be evaluated using this measurement process, and assessment results will not differentiate B.S. and B.A. students. Students will not be required to apply for the jobs they have identified through this assignment.
- ii. This is a direct measurement.
- iii. The program performance target for this outcome is defined as “acceptable” or better performance by 75% of students in Geog 471 as evaluated by both faculty readers. The standard for “acceptable” is defined in the attached rubric #4, which will be given to students in advance.

3. When will learning outcomes be assessed? When and in what forum will the results of the assessment be discussed?

Assessment of student learning in the B.S. program will be conducted every semester that the senior capstone course (Geog 471) is offered, typically once per year in the fall semester, as well as every semester that Geog 481L is offered, typically once per year in the spring semester. All outcomes will be assessed each time Geog 471 and Geog 381L are offered.

Course instructors for Geog 471 and Geog 381L will be responsible for completing assessment rubrics for each student, and supplying completed rubrics to the outcomes Assessment Coordinator. The instructor of Geog 471 and the Assessment Coordinator will be responsible for evaluating student résumés. If the Assessment Coordinator is unavailable or simultaneously the instructor of Geog 471, the Assessment Coordinator will be responsible for identifying other faculty members who will evaluate student résumés.

Completed rubrics will be placed in an assessment file to be administered by the departmental Assessment Coordinator. The Assessment Coordinator will produce an annual report on the number of students assessed and the scores recorded for each SLO.

The annual report for the prior academic year will be discussed in a faculty meeting during the fall semester. Prior to this meeting, the departmental Assessment Coordinator will identify important results of SLO assessment, and propose possible modifications to the assessment instruments

and/or methods. The faculty will discuss the results and proposed modifications; the annual report and any modifications shall be approved by consensus of the faculty.

At the beginning of the third fall semester in the assessment period, the Assessment Coordinator will synthesize the annual reports for the three prior academic years. The report for the three-year assessment period will be discussed in a faculty meeting prior to the deadline for submitting the report to the CARC. The content of the three-year report and proposed modifications will be discussed, as well as possible changes in program curriculum/pedagogy. The discussion of curriculum/pedagogy was conducted in fall 2013, and will occur again in fall 2016.

The final, approved version of the three-year report will be distributed directly to part-time instructors, and made available to students by posting an announcement in a public location in the department, at the same location where SLOs are also posted. (Results based on the Geog 471 pre-test will be generalized to prevent students from accessing correct answers to the assessment questions.) The annual report for AY 2012-2013 will be distributed and posted during fall 2013.

TIMELINE

- **Spring 2013**
 - Appoint new Assessment Coordinator

- **Fall 2013**
 - Discuss of annual report for AY 2012-2013
 - Discuss of modifications to assessment plan and procedures
 - Discuss of curriculum/pedagogy for the B.S. program
 - Distribute report for AY 2012-2013 to part-time instructors and the department Advisory Board, and post announcement of report availability for student review

- **AY 2013-2014 through AY 2015-2016**
 - Rolling assessment of SLOs (as described above)

- **Fall semesters 2014 and 2015**
 - Annual report compiled and distributed to faculty
 - Faculty discussion of report contents and possible modifications to assessment procedures

- **Fall 2016**
 - Three-year report compiled and distributed to faculty
 - Discuss three-year report contents and possible modifications to assessment procedures and plan
 - Submit final report to CARC
 - Distribute three-year report to part-time instructors and the department Advisory Board, and post announcement of report availability for student review

- **Spring 2017**
 - Appoint new Assessment Coordinator

4. What is the unit's process to analyze/interpret assessment data and use results to improve student learning?

All members of the departmental faculty will participate in the assessment process at various levels:

- a) The Assessment Coordinator will have primary responsibility for collecting or compiling, and analyzing all assessment data.
- b) The Assessment Coordinator and the instructor of Geog 471 will collect data relative to SLO E.1. Other faculty may participate in this measurement process, as described above.
- c) The instructor of Geog 481L will collect data relative to SLOs C.1 and C.2, and will transfer the required assessment data to the Assessment Coordinator.
- d) Annual reports and the three-year report will be prepared by the Assessment Coordinator, who will also be responsible for distributing reports as described above. The Assessment Coordinator will also be responsible for developing initial interpretations of assessment results, and proposing changes to assessment procedures (annually) and the assessment plan (every three years).
- e) The faculty as a whole will discuss and approve contents of annual reports, as well as any proposed changes to assessment procedures. The faculty as a whole will be responsible for proposing and approving changes to program curriculum and pedagogy at the end of the three-year assessment period.
- f) The entire faculty will approve the final versions of all reports before circulation to part-time instructors, students, and the CARC

RUBRIC #1:

This rubric will be used to evaluate student work in Geog 471 as described in the assessment plan. All students in the B.S. and B.A. programs will be assessed using this rubric.

Program Outcomes	Criteria	Assessment			
		Superior	Good	Acceptable	Not Acceptable
B.1. Students will be able to identify the geographic contexts relevant to an inquiry.	1. Describes an issue or problem.				
	2. Explains how the topic is relevant to geography.				
	3. Uses relevant literature to explain the context of the issue or problem.				
<i>BA and BS programs</i> B.2. Students will be	1. States a clear research question.				
	2. Identifies data sources needed to address the research question.				
	3. Relevance of the data sources is explained.				
	4. Data is analyzed in ways appropriate for addressing the research question.				
B.3. Students will be able to assess the results of a data-driven geographical inquiry.	1. Identifies meaningful patterns in research results.				
	2. Draws conclusions based on research results.				
	3. Assesses limitations of the research and its conclusions.				
<i>BA and BS programs</i> D.1. Students will be	1. Presentation style is appropriate.				
	2. Presentation includes appropriate visual aids.				
	3. Presentation is well organized.				
	4. The presentation adheres to the stated time limits without rushing.				
D.2. Students will be able to communicate clearly and effectively in a written format.	1. The report is clearly written.				
	2. The report is well organized.				
	3. The text is adequately illustrated with appropriate maps, other graphics, and tables.				
<i>B.A. and B.S. programs</i> D.3. Students will be able to communicate clearly and effectively with geovisualization methods, including map composition.	1. Provides a complete map or other standard form of geovisualization.				
	2. The geovisualization uses appropriate and effective symbology.				
	3. The geovisualization uses appropriate and effective text.				

RUBRIC #2:

This rubric will be used to evaluate student work in Geog 481L as described in the assessment plan. All students in the B.S. program will be assessed using this rubric.

Program Outcomes	Criteria	Assessment			
		Superior	Good	Acceptable	Not Acceptable
C.1. Students will be able to identify, collect and process digital spatial data using industry-standard tools.	1. Identifies spatial data relevant for a selected topic.				
<i>B.S. program only</i>	2. Collects spatial data using appropriate methods.				
	3. Prepares the data correctly for use in spatial analysis.				
C.2. Students will be able to employ appropriate geospatial analysis methods and interpret the results.	1. Identifies appropriate geospatial analysis methods to address a particular question.				
<i>B.S. program only</i>	2. Uses geospatial tools correctly for spatial data analysis and modeling.				
	3. Identifies meaningful patterns in research results.				
	4. Draws conclusions based on research results.				
	5. Assesses limitations of the research and its conclusions.				

RUBRIC #3:

This rubric will be used to evaluate student work in Geog 471 as described in the assessment plan. All students in the B.S. and B.A. programs will be assessed using this rubric.

Program Outcome	Criteria	Assessment			
		Superior	Good	Acceptable	Not Acceptable
E.1. Students will be able to prepare an acceptable, entry-level professional résumé.	1. Résumé includes necessary information.				
	2. Format and layout of résumé are appropriate and effective.				
	3. Content of résumé matches job announcement specifications.				