



College of Arts and Sciences
BA/BS Geography
Assessment Report Form 2015-2016

Date of Report: 7/12/2016

Name of Person Submitting Report: Emily Fekete

A. Program Information:

Assessment Coordinator's Name: Emily Fekete

Assessment Coordinator's Email Address: Fekete@okstate.edu

Number of students enrolled in the program 2015-2016: 47 (41 first majors, 6 second majors)

Number of students graduated in 2015-2016: 14

B. Program Mission Statement

In the box below, provide the mission statement for the program.

The mission statement, educational objectives, and goals for program should guide the assessment process. The mission statement should align with department, college, and institutional mission statements.

The mission of the Department of Geography at Oklahoma State University is twofold: one, the department will provide high quality programs at the undergraduate and graduate levels, and two, the faculty will pursue research programs of national reputation.

The Department of Geography will provide geographic education and service for its majors and for the university community, the state, and the nation. Its focus will be on the three areas of emphasis that the department has established: cultural/historical geography, natural resource management, and urban/transportation geography.

For our majors, the department will provide a broad-based education that will allow students to continue their studies at the graduate level, or to pursue careers in business, government, and education.

Through research and the presentation of research findings, the faculty and students will be part of the international profession of geography and its related disciplines.

C. University Assessment Funds

Were university assessment funds used by the department/program for assessment activities? Yes No

If university assessment funds were used by the department or program, describe how university assessment funds were used and the contribution the funds had on the assessment process. Funding requests for the next academic year have a separate process and should not be included here.

If yes, click here to enter information about how university assessment funds were used.

D. Student Learning Outcomes

On the pages that follow, list the Student Learning Outcomes associated with the program identified in this assessment form.

D1) Student Learning Outcome #1: Demonstrate an understanding of the basic concepts of Geography and an appreciation for various regional, topical, and methodological approaches in Geography.

Identify opportunities for students to learn this outcome during the 2015-2016 academic year:

For example, include a curriculum map that lists the courses or other learning experiences in which the student learning outcome is taught. Another example is a written narrative that describes how the learning outcome is integrated into the program.

Students have the opportunity to learn this outcome in the variety and scope of their undergraduate courses at OSU. For this reason, GPA of geography core classes, geography major classes, as well as their graduation/retention GPA are all taken into consideration.

How many students were included in the assessment of this outcome?

There are 14 students included in the assessment of this outcome.

How were students selected to participate in the assessment of this outcome?

Graduated from OSU with a geography degree.

Assessment Methods

Identify the method(s) used to assess this learning outcome. Check all that apply.

- Survey
- Rating of skills (e.g., rubrics)
- Analysis of written artifacts
- Comprehensive, certification, or professional exam(s)
- Oral presentation
- Course project
- Satisfaction Survey
- Benchmarking
- Measuring effectiveness relative to professional standards
- Review of thesis/dissertation/ creative component
- Capstone project
- Internship
- Interviews
- Performance or jury
- Visual collection (photos, videos, etc.)
- Review of student research
- Other (please specify):
Transcript analysis

Describe the how the assessment method was implemented, administered, and/or conducted.

For each graduating senior (5 in fall 2015, 9 in spring 2019, 0 in summer 2015 n=14 total), a transcript analysis is performed for several GPA measures: core courses (18 hours), major block (45 hours), and graduation/retention GPA. The enrollment choices and grades earned in the upper-division related (non-GEOG) requirement of six hours are also recorded. No student action or active participation is necessary.

Did your department/program faculty have a goal set for this learning outcome? Yes No

For example, "80% of students included in the assessment will receive a 4 on the rubric" or "80% of students included in the assessment will achieve a passing score on the certification exam." If yes, please describe the goal below.

If yes, click here to describe the goal set for this learning outcome.

Provide a summary of the results from the assessment of Learning Outcome 1.

Report student's scores for this assessment, as well as students' strengths and weaknesses relative to this learning outcome.

The assessment of this learning outcome is derived primarily from the GPA computations for the Geography core and major block for graduates, as the breadth and depth of Geography cannot be captured in any single course but rather occurs across the curriculum and through the duration of a student's undergraduate tenure. GPA summaries for graduating seniors for the past 5 years are given in Table 1.

Year	Summary GPA			
	N	Core Courses	Major Block	Graduation/Retention
2015-2016	14	2.93	3.09	2.94

2014-2015	8	2.92	3.10	2.91
2013-2014	14	2.93	3.13	3.00
2012-2013	8	3.12	3.21	3.04
2011-2012	10	2.99	3.19	2.98
Sum/Average (2011-2016)	54	2.98	3.14	2.97

What do the results suggest about student achievement of this learning outcome?

The overall graduation/retention GPA average for the 2015-2016 graduates is similar to the 5 year graduation/retention GPA average of geography graduates. While it has wavered some over the previous five years, in reality the average remains consistent at around a “B”. The average GPA for graduates during the 2015-2016 year in their core courses is almost identical to the overall graduation/retention averages. This is also true for the 5 year average in core courses as compared to the 5 year graduation/retention average. Geography graduates continue to perform slightly higher in the courses in the major block than they do in either their core courses or their overall graduation/retention GPA. Geography majors must choose up to 30 hours of courses that they can take to fulfill their major block requirements and are likely to choose those courses which most interest them and their area of specialty within the discipline. Therefore, it is not surprising that they would perform slightly better in courses they are choosing based on their interests rather than courses which are required aspects of the geography program or courses that are needed for general education.

In sum, there remains a strong consistency from year-to-year in student performance as indicated by student grades. As grades are the main indicator of student performance reported for each student in each class (only core classes also have rubrics), they are also a useful measure of student performance regarding the basic concepts of geography.

Timeline for the Assessment

Indicate the timeline for the assessment of this learning outcome. While outcomes assessment must be conducted every year, not all student learning outcomes for a given program must be assessed every year. If the assessment of a particular learning outcome occurs on cycle or rotation, please describe and provide the rationale for the cycle/rotation below.

Each Semester

Yearly

Every other year

Other (please specify): If the assessment of Learning Outcome 1 occurs on a cycle or rotation, click here to describe and provide the rationale.

D2) Student Learning Outcome #2: Demonstrate technical skills in: collection and analysis of spatial data, computer cartography, and geographic information systems (GIS).

Identify opportunities for students to learn this outcome during the 2015-2016 academic year:

For example, include a curriculum map that lists the courses or other learning experiences in which the student learning outcome is taught. Another example is a written narrative that describes how the learning outcome is integrated into the program.

These are the core courses in the geography degree. Students will learn these skills by taking core courses. Evaluation rubrics are completed by each instructor of a core course in order to evaluate student learning.

How many students were included in the assessment of this outcome?

This includes all geography undergraduates. For the 2015-2016 year there were 14 undergraduate majors who completed the degree.

How were students selected to participate in the assessment of this outcome?

All Geography undergraduates who graduated with a geography degree.

Assessment Methods

Identify the method(s) used to assess this learning outcome. Check all that apply.

- | | | |
|--|---|---|
| <input checked="" type="checkbox"/> Survey | <input type="checkbox"/> Satisfaction Survey | <input type="checkbox"/> Internship |
| <input checked="" type="checkbox"/> Rating of skills (e.g., rubrics) | <input type="checkbox"/> Benchmarking | <input type="checkbox"/> Interviews |
| <input type="checkbox"/> Analysis of written artifacts | <input type="checkbox"/> Measuring effectiveness relative to professional standards | <input type="checkbox"/> Performance or jury |
| <input type="checkbox"/> Comprehensive, certification, or professional exam(s) | <input type="checkbox"/> Review of thesis/dissertation/ creative component | <input type="checkbox"/> Visual collection (photos, videos, etc.) |
| <input type="checkbox"/> Oral presentation | <input type="checkbox"/> Capstone project | <input type="checkbox"/> Review of student research |
| <input type="checkbox"/> Course project | | <input type="checkbox"/> Other (please specify): |
| | | Click here to specify. |

Describe the how the assessment method was implemented, administered, and/or conducted.

Method 2a: Evaluation rubrics are distributed to each instructor of a required (core) course near the end of each semester, with the students' names and each course's stated student learning outcomes listed. Instructors rate each student on a 0-4 scale for each outcome (0 for minimal to no mastery of the outcome, 4 for maximal mastery), as described in the department Undergraduate Assessment Plan and as assessed by the instructors of each core course. Average scores for each course and learning outcome are determined each year; final course grades for each student are also recorded so comparisons between rubric averages and course grades can be made, as both are on a 4.0 scale.

Every semester, active Geography majors who are enrolled in core courses (GEOG 4203, 3333, 4313, 4323, 4333, 4343, and 4353) are assessed by their instructors. Data are collected at the end of every fall and spring semester; no core courses are taught during summer. These courses are required because they cover the spectrum of technological and methodological skills that Geography graduates need in the workplace today, and thus all Geography majors get a relatively consistent experience in this regard. Geography majors must also take a variety of regional and topical courses to complete their degrees, but the course selection in these areas is at the students' discretion (see Major block GPA analysis above). Thus, for evaluation and comparison purposes, the group of required core courses is selected for additional rubrical evaluation.

The rubric items and scores assess different learning outcomes of the courses themselves, which in aggregate are a reasonable measurement of Geography majors' accomplishment of this learning goal. There is no national standardized test of college Geography graduates' learning accomplishments, and past negative experience by this department with a standardized exit exam has resulted in the current model in which the major components of the core courses themselves are treated as proxies for the overall departmental learning goals. Likewise, portfolios are not especially applicable for undergraduate Geography majors, and as a

result a comprehensive, holistic, or outside evaluation of majors' learning outcomes is not feasible at this time. (Please note: we are currently reworking undergraduate current assessment guidelines).

Rubric items are assessed independently on the 0-4 scale separately from specific grades earned in the class. Instructors primarily base their evaluations on individual assignments and term projects in the pertinent courses, identifying specific assignments or components that meet the major course learning goals, and they are encouraged to rate students on the individual learning outcomes prior to determining final course grades. During the reporting year, this process resulted in 45 student-course assessments. No student action or active participation is necessary.

Method 2b: described earlier (1b). In addition to GPA averages, majors earning the Certificate in GIS are tallied during the transcript analysis.

Method 2c: In even-numbered years, the University Assessment and Testing office conducts undergraduate alumni surveys with seventeen common questions and fourteen department-specific questions, several of which relate to the use of geographic technologies on the job as well as the overall usefulness of the Geography degree in the workplace. This survey is conducted by phone by the Office of University Assessment and Testing, and undergraduate alumni one and five years after graduation comprise the sample.

Did your department/program faculty have a goal set for this learning outcome? Yes No

For example, "80% of students included in the assessment will receive a 4 on the rubric" or "80% of students included in the assessment will achieve a passing score on the certification exam." If yes, please describe the goal below.

If yes, click here to describe the goal set for this learning outcome.

Provide a summary of the results from the assessment of Learning Outcome 2.

Report student's scores for this assessment, as well as students' strengths and weaknesses relative to this learning outcome.

The core course evaluation rubrics (2a) in comparison to the transcript analysis (Table 1, above) (2b) allows general comparisons of the core courses that are primarily related to geo-technologies. Table 2 compares overall rubric averages from the current and past three reporting years for geo-technology courses. All courses are taught once per year, except GEOG 4203, which is offered in both spring and fall. Statistics for this course is, therefore, an aggregate of both offerings in a given year.

Core Courses	2015-2016		2014-2015		2013-2014		2012-2013	
	N	Rubric	N	Rubric	N	Rubric	N	Rubric
4203	9	2.34	5	2.45	10	3.09	13	2.12
3333	13	2.89	13	2.67	10	2.48	11	2.18
4313	9	3.51	13	3.12	11	3.34	12	3.13
4323	6	3.39	9	2.98	3	3.33	14	2.72
4333	4	2.83	3	3.58	2	3	1	1.33
4343	3	2.78	6	2.94	4	2.58	8	2.65
4353	3	2.83	6	2.75	5	2.5	NA	-

Table 3 reports the numbers of Geography majors earning the GIS Certificate each year.

Year	Undergraduate GIS Certificate Recipients	Undergraduate Geography Graduates	Percent of Geography Graduates
2015-2016	9	14	64%
2014-2015	2	8	50%
2013-2014	6	14	43%
2012-2013	3	8	38%
2011-2012	4	10	40%
Sum/Average (2010-2016)	24	54	44%

Table 4 summarizes seven Geography-specific questions from the 2016 Alumni Surveys relating to technical and computer skills in the workplace. Alumni Surveys are completed on even years only.

Skill (n=6)	Use Regularly	Use occasionally	Do not use
1. GIS/Database mgmt.	33%	17%	50%
2. GPS	17%	50%	33%
3. Remote sensing	0%	17%	83%
4. Computer mapping	33%	33%	33%
5. Qualitative methods	33%	33%	33%
6. Quantitative methods/stats.	33%	33%	33%
7. Field work/surveys	17%	17%	67%

What do the results suggest about student achievement of this learning outcome?

The core course evaluations of Geography majors represent the most direct assessment measure used in this plan. Table 2 indicates that student performance this year was, overall, about the same as the previous year. There were a few courses that saw a slight drop in student performance, namely 4203, 4333, and 4343. However there were courses that also saw an increase in student performance which were 3333, 4313, 4323, and 4353. Overall, the changes reflected in Table 2 are most likely due to the different mix of students taking these courses in the past academic year. Rubric score averages for 2015-2016 were similar to the previous year and have seen a rise in general over the past three years.

Within individual courses, instructors noted some trends and outcome-specific results that represent the most direct and most useful information about what and how our students learn the critical geo-technologies that will provide their best prospects for getting jobs. Thus, a holistic overview of each course is given next.

In GEOG 2343/4203 (Introduction to GIS), a mixture of evidence including lab exercises, reports, and exams as well as regular homework assignments and exams is used to evaluate students (9 in 2015-2016). Three different instructors teach this class, one in the fall and two in the spring. There was a range of averages among the 4 learning outcomes for this course (2.2-2.6). Overall, each of the four outcomes was scored fairly consistently, and the rubric average of 2.34 for the 9 students is slightly lower than the 4-year average of 2.5 for 37 total students. These averages vary widely from year to year depending on the students enrolled. There were also two students who withdrew from the course, only one of which was included in the learning outcomes averages.

For GEOG 3333 (Spatial Analysis), weekly individual exercises are the primary basis of evaluating students (13 students). Outcome averages ranged from 2.5-3.5, in the essential/high essential knowledge category in all 5 outcomes areas. The same instructor has taught this course for several years with high consistency in the method and content. Many of our students continue to exhibit unnecessary “math anxiety” related to this course. However, the overall rubric average of 2.89 for the thirteen students scored is higher than the 4-year average of 2.56 for 37 total students. Therefore, despite the anxiety students express about taking 3333, on average students have become increasingly proficient, gaining in the average outcomes scores with each successive year.

In GEOG 4313 (Field Techniques), a mixture of outside exercises (for instance, using GPS receivers, as well as some field surveying methods including basic mapping techniques), other individual work, and a final research project and proposal are used to evaluate learning (9 students). The five outcomes ranged between 3.33 and 3.56 (proficient), indicating high levels of student learning. These averages represent an increase from previous years. As a key component of this course, students are required to participate in an overnight data collection fieldtrip. With the assistance of local Oklahoma based agencies (last year, Oklahoma State Parks Main Office and Greenleaf State Park Officials), students work in teams to design, implement, execute, and synthesize a final research project. Although most students complain about overnight field stays, by the end of the course, students, for the most part, cite the overnight field trip as the highlight of the course. Furthermore, many students suggest that their participation in real world, team-based field research makes them more competitive on the job market, mainly because it gives them experience working in and negotiating group dynamics. The overall rubric average of 3.51 for the 9 students is higher than the 4-year average of 3.28 for 45 total students.

GEOG 4323 (Computer Cartography) uses lab assignments, exams, and an individual final mapping project to assess students (6 in Spring 2016). Among our students, there is a growing recognition regarding the importance of computer mapping, even among students who do not complete the GIS certificate. All 6 outcomes averaged 3.17-4 (ranging from proficient to highly proficient). The overall rubric average of 3.39 for the 6 students is higher than the 4-year average of 3.11 for 32 total students. It appears that the course outcomes vary widely depending on the students present in class.

For GEOG 4333 (Remote Sensing), labs, class discussions, homework assignments, quizzes, and exams are all used to evaluate student learning. All outcomes for the 3 undergraduate students in this advanced course averaged 2.5-3 (essential/proficient). Overall, the overall rubric average of 2.83 higher than the 4 year average of 2.69. While there was a decline in averages in 2015 from the previous two years, the course remodel under a new faculty member the past three years has made a significant change in student performance in the course overall.

GEOG 4343 (Natural Resource Applications of GIS) had a total of 3 undergraduate students enrolled in the course. Tools used to evaluate students included lab assignments, homework, and exams. All outcomes averaged between 2.67 and 3 (proficiency). The overall rubric average of 2.78 is about the same as the 4-year average of 2.74. Outcome performance continues to remain consistent throughout this course.

GEOG 4353 (Socioeconomic Applications of GIS) had a total of 3 undergraduate students enrolled in the course in Fall 2015. Tools used to evaluate students included lab assignments, tests, class discussions, and final projects. All outcomes ranges between 2.7 and 3 (essential knowledge). The overall rubric average of 2.83 is higher than the 3-year average (course was not taught in 2012) of 2.69 for 14 total students.

Overall comparison with core course transcript evaluation: The average rubric score for the 2015-2016 reporting period was 2.94. This is extremely close to the core course GPA (Table 1) average of 2.98. This illustrates the very close relationship between student grades, student learning, and overall rubric scores. Furthermore, it illustrates that our average student is approximately proficient when they graduate in the skills we would expect.

Table 3 shows that 9 out of 14 of the graduating students obtained the GIS certificate (64%). There continues to be an upward trend in the percentage of geography majors who complete the certificate. The rise in GIS-related jobs recently is likely one reason for students pursuing this certificate. While a GIS career may not be a student's first choice for a career path, it is a stable option in an unstable economy for students to fall back on.

Table 4 provides the results from the 2016 alumni survey conducted by University Assessment and Testing at Oklahoma State University. The survey was conducted among those students who received their degree in geography from OSU in 2010 and in 2014. The results in Table 4 are an aggregate of responses from both years. About half of the students who are currently employed use GIS or database management skills in their current employment. More graduates use GPS skills in their jobs than GIS related skills. Remote sensing does not seem to be a commonly used skillset among geography graduates in their employment with 83% responding that they do not use this skill. There is a diverse array of skill use for computer mapping, qualitative analysis, and quantitative analysis, likely because of the range of employers of the graduates surveyed. Based on this survey, geography graduates are employed by Halliburton, State Farm Insurance, Devon Energy, OK DOT, Express Employment Professionals, and Canadian County Assessor's Office doing a range of jobs from GIS Contractor/Specialist, Electronics Technician, Injury Litigation Claim Representative, Transportation Specialist, and Forklift Operator.

Timeline for the Assessment

Indicate the timeline for the assessment of this learning outcome. While outcomes assessment must be conducted every year, not all student learning outcomes for a given program must be assessed every year. If the assessment of a particular learning outcome occurs on cycle or rotation, please describe and provide the rationale for the cycle/rotation below.

Each Semester

Yearly

Every other year

Other (please specify): If the assessment of Learning Outcome 2 occurs on a cycle or rotation, click here to describe and provide the rationale.

D3) Student Learning Outcome #3: Integrate the perspectives of several related academic disciplines to interpret the human/cultural landscape.

Identify opportunities for students to learn this outcome during the 2015-2016 academic year:

For example, include a curriculum map that lists the courses or other learning experiences in which the student learning outcome is taught. Another example is a written narrative that describes how the learning outcome is integrated into the program.

Undergraduate geography majors are required to take two upper division courses outside of the geography department in related academic disciplines. These related disciplines help to integrate different perspectives into the student's academic knowledge to increase the breadth and interdisciplinarity of a geography degree.

How many students were included in the assessment of this outcome?

This includes all geography undergraduates. For the 2015-2016 year there were 14 undergraduate majors who completed the degree.

How were students selected to participate in the assessment of this outcome?

All undergraduate geography majors who graduated during the 2014-2015 year.

Assessment Methods

Identify the method(s) used to assess this learning outcome. Check all that apply.

- | | | |
|--|---|--|
| <input type="checkbox"/> Survey | <input type="checkbox"/> Satisfaction Survey | <input type="checkbox"/> Internship |
| <input type="checkbox"/> Rating of skills (e.g., rubrics) | <input type="checkbox"/> Benchmarking | <input type="checkbox"/> Interviews |
| <input type="checkbox"/> Analysis of written artifacts | <input type="checkbox"/> Measuring effectiveness relative to professional standards | <input type="checkbox"/> Performance or jury |
| <input type="checkbox"/> Comprehensive, certification, or professional exam(s) | <input type="checkbox"/> Review of thesis/dissertation/ creative component | <input type="checkbox"/> Visual collection (photos, videos, etc.) |
| <input type="checkbox"/> Oral presentation | <input type="checkbox"/> Capstone project | <input type="checkbox"/> Review of student research |
| <input type="checkbox"/> Course project | | <input checked="" type="checkbox"/> Other (please specify):
Transcript Analysis |

Describe the how the assessment method was implemented, administered, and/or conducted.

Described earlier in Outcome 1.

Did your department/program faculty have a goal set for this learning outcome? Yes No

For example, "80% of students included in the assessment will receive a 4 on the rubric" or "80% of students included in the assessment will achieve a passing score on the certification exam." If yes, please describe the goal below.

If yes, click here to describe the goal set for this learning outcome.

Provide a summary of the results from the assessment of Learning Outcome 3.

Report student's scores for this assessment, as well as students' strengths and weaknesses relative to this learning outcome.

The primary data used to analyze this learning outcome are overall GPA averages and analyses of course choice and grades earned by students in their completion of the upper division (non-GEOG) related requirement of six credit hours. Though the diverse field of Geography itself integrates varied academic sub-disciplines, the entire liberal arts orientation of a Geography degree within a College of Arts & Sciences is designed to help students see the "big picture". Thus, the overall major GPA and graduation/retention GPA computations provide indirect evidence of student achievement in an inherently inter-disciplinary degree, and non-GEOG course choices further reveal students' expanding interests.

Geography majors must complete six hours (two courses) of Geography-related upper division work in a non-GEOG prefix. Any course with the Contemporary International Cultures general education designation (I) except foreign language grammar classes, most American Studies, History, Political Science, and Geology classes, and a large selection of demonstrably cultural or Geography-related courses populate this list.

Regarding the non-GEOG upper division related category, this year's graduates completed the following prefixes and instances (in parentheses) for this requirement: AMST (1), ANTH (2), ART (1), BOT (2), CHEM (2), GEOL (2), HIST (5), HRAD (2), MC (1), MSIS (2), POLS (1), RUSS (1), SCFD (1), SDEV (1), SOC (2), SOIL (2). The GPA average for these 28 courses (two courses each for 14 graduates) was 3.29, much higher than last year's average of 2.875 for 16 courses (8 graduates).

What do the results suggest about student achievement of this learning outcome?

The various GPA calculations reveal that recent Geography graduates average slightly more than a B in non-GEOG related courses. These results have increased from the previous year and reveal an overall healthy undergraduate geography program. The B average is also consistent with the averages reported in Outcome 1.

Timeline for the Assessment

Indicate the timeline for the assessment of this learning outcome. While outcomes assessment must be conducted every year, not all student learning outcomes for a given program must be assessed every year. If the assessment of a particular learning outcome occurs on cycle or rotation, please describe and provide the rationale for the cycle/rotation below.

Each Semester

Yearly

Every other year

Other (please specify): If the assessment of Learning Outcome 3 occurs on a cycle or rotation, click here to describe and provide the rationale.

D4) Student Learning Outcome #4 [IF NEEDED]: Apply geographic knowledge and skills to a range of problems faced by industry and the government, and find employment that makes use of such skills (or pursue graduate studies).

Identify opportunities for students to learn this outcome during the 2015-2016 academic year:

For example, include a curriculum map that lists the courses or other learning experiences in which the student learning outcome is taught. Another example is a written narrative that describes how the learning outcome is integrated into the program.

Students participate in this learning outcome by reporting on their intended plans following graduation in an exit survey (added on in section H). Alumni also report on their time spent in the geography program one and five years after graduation to the university.

How many students were included in the assessment of this outcome?

Exit surveys were emailed to the 14 students who graduated to complete at the end of the academic year. Two emails were sent out to remind the students to complete the form. The number of completed forms was 9. The Alumni survey was sent out by University Assessment and Testing to 14 graduates from 2010 and 10 graduates from 2014. 4 graduates from each year responded to the survey with a total response rate of 33.3% or 8 responses.

How were students selected to participate in the assessment of this outcome?

Undergraduates are asked to complete the exit survey upon graduation. Two emails were sent out to remind the students to complete the form. Alumni surveys are conducted by University Assessment and Testing.

Assessment Methods

Identify the method(s) used to assess this learning outcome. Check all that apply.

- | | | |
|--|---|---|
| <input checked="" type="checkbox"/> Survey | <input type="checkbox"/> Satisfaction Survey | <input type="checkbox"/> Internship |
| <input type="checkbox"/> Rating of skills (e.g., rubrics) | <input type="checkbox"/> Benchmarking | <input type="checkbox"/> Interviews |
| <input type="checkbox"/> Analysis of written artifacts | <input type="checkbox"/> Measuring effectiveness relative to professional standards | <input type="checkbox"/> Performance or jury |
| <input type="checkbox"/> Comprehensive, certification, or professional exam(s) | <input type="checkbox"/> Review of thesis/dissertation/ creative component | <input type="checkbox"/> Visual collection (photos, videos, etc.) |
| <input type="checkbox"/> Oral presentation | <input type="checkbox"/> Capstone project | <input type="checkbox"/> Review of student research |
| <input type="checkbox"/> Course project | | <input type="checkbox"/> Other (please specify): |
- [Click here to specify.](#)

Describe the how the assessment method was implemented, administered, and/or conducted.

Method 4a: described earlier (2c)

Method 4b: An exit survey is completed by each graduating senior at the end of his or her final semester. The survey consists of 16 numerically scored questions (on a 0-4 scale with 0 being completely dissatisfied and 4 being completely satisfied). There are also some open-ended questions that address other areas not conveniently captured by the quantitative rubric.

Did your department/program faculty have a goal set for this learning outcome? Yes No

For example, "80% of students included in the assessment will receive a 4 on the rubric" or "80% of students included in the assessment will achieve a passing score on the certification exam." If yes, please describe the goal below.

If yes, [click here](#) to describe the goal set for this learning outcome.

Provide a summary of the results from the assessment of Learning Outcome 4.

Report student's scores for this assessment, as well as students' strengths and weaknesses relative to this learning outcome.

Table 5 below gives the average responses for the first 16 questions on the undergraduate exit survey sent to those who graduated in the 2015-2016 school year.

	Average of Responses (0-4 scale)
Overall rating of your degree program	3.67
Effectiveness of preparation for employment or graduate school	2.89
Up-to-date proficiency in technical skills	3.44
Marketability of skills for the workplace	3.33
Quality of instruction	3.78
Quality of advising	3.44
Quality of departmental facilities (primarily labs)	2.78
Quality and relevance of texts and instructional materials (lab manuals)	3.44
Quality of graduate teaching associates (courses or labs)	3.78
Departmental responses to student concerns	3.44
Availability of faculty to students	3.89
Availability of departmental resources to students (primarily labs)	1.89
Usefulness of degree requirements and electives	3.33
Flexibility of degree programs	3.44
Academic standards of the department	3.56
Availability/access to clubs and other extracurricular activities	3.67

What do the results suggest about student achievement of this learning outcome?

Based on the averages in Table 5, overall the geography department continues to provide high quality instruction and access to resources on campus to its graduates. Almost every question had an average higher than 3 (on a 0-4 scale).

There were only three questions where the averages were below a 3. Two of these questions had to do with lab space in the department. Based on the responses to the follow up question “What could be done to improve students' experiences in the Geography Department (departmental labs and otherwise)?” it appears that the primary concern for students is with the accessibility of the lab facilities. This is an issue that has been recurring in the department for the past several years. Students continue to want to be able to access labs in the building after 6 pm and on weekends. The department has tried to combat this issue by installing related geography software on computers in the libraries where students would have less limited access. The requests could either be due to a lack of knowledge about the availability of software in the libraries (one response specifically asked if software could be installed on computers in the library) or due to students preferring to work in the labs as opposed to the library. The department will be better about reminding students of access to software in the library and look into other ways to address the lab accessibility issue.

The third question that had a below 3 average response was related to the way the department prepares graduates for careers. Several other comments respondents put under question 7: “Do you have any other suggestions or concerns that are not addressed on this survey?” were also related to employment preparedness. One student asked for a career fair specific to geographic employment. Another student asked for a course held during their senior year that would help them find and apply for jobs. The department has been looking into ways to help students with employment by holding events such as a career night featuring a panel of geography alumni to discuss their jobs. The department has also been working to invest more energy into its alumni network through social media sites such as LinkedIn as well as create a wall of business cards of alumni to showcase places where undergraduates could potentially find future employment. Other endeavors will also be considered.

Overall the department continues to do well in its quality of instruction and students are very satisfied with the faculty and course offerings. Responses to open ended questions focused on appreciation for the flexibility of the geography degree, the wide array of courses available, the many study abroad trips offered, and the environment and friendliness of the department and the faculty. Of the 9 responses only 3 graduates filled out the question regarding immediate plans with two continuing on to graduate school at OSU and one planning on being an Art/Geography teacher in Dallas. The results from the alumni survey conducted by the university on even years are more helpful in gaining perspective on where our graduates are employed as students often do not start looking for jobs until after they have graduated.

Table 4 in Outcome 2 reports on the technical skills used most frequently by geography alumni in their current employment. Therefore, this section of the assessment will focus on other information obtained through the Alumni Survey. Currently 6 out of 8

respondents are employed. Of the two not employed, one is currently seeking employment and the other is not. The majority of our past students are employed by large corporations (67%) while one person works for the state government and another for a local government. Of those employed, all are employed full time.

Most of the alumni surveyed found that their employment is either moderately or highly related to their major in geography (50%) while 17% said their current career is only slightly related and 33% said that their job is not at all related to their undergraduate studies at OSU. Despite this, 75% said that the geography program prepared them adequately or very well for their current position while 25% said it did not prepare them very well. Our graduates make a range of salaries (from one person in the \$15,000-\$25,000 range at the lowest to one respondent reporting over \$100,000 as a salary). Based on this survey, geography graduates are employed by Halliburton, State Farm Insurance, Devon Energy, OK DOT, Express Employment Professionals, and Canadian County Assessor's Office doing a range of jobs from GIS Contractor/Specialist, Electronics Technician, Injury Litigation Claim Representative, Transportation Specialist, and Forklift Operator.

Two out of 8 respondents are currently enrolled in a graduate program, one at the Master's level and one at the Doctorate level. In general it appears the department did not prepare these students well for their graduate program with one reporting that the department prepared them adequately and the other reporting the department prepared them not very well. This will be something for the department to consider as it moves forward especially with the rise in the number of students nationwide continuing on to graduate degree programs.

Overall alumni were satisfied with the quality of instruction they received in the geography department with 88% reporting that they are satisfied or very satisfied with the quality of instruction they received in their major. The remaining 22% reported a neutral feeling about instruction. Academic advising was not looked on as favorably as instruction with 38% reporting they were either very dissatisfied, dissatisfied, or neutral in regards to the advising they received. 63% reported they were satisfied or very satisfied with advising. There is a distinct shift between the 2010 respondents and the 2014 respondents in this regard. Whereas all of the 2010 respondents reported neutral, satisfied or very satisfied, 50% of the 2014 respondents reported dissatisfied or very dissatisfied with the other 50% reporting satisfied. This discrepancy is likely due to the somewhat chaotic shift in advising that occurred in the department over the past several years. With the creation of a new advising position starting during the 2015-2016 academic year, hopefully this situation will be rectified.

In terms of the overall strengths and weaknesses of the geography department, the alumni had a variety of responses. Weaknesses included a lack of professional development teaching, a lack of GIS coding or mandatory internships, not enough real world experiences in the classroom, and being out of touch with corporate GIS uses such as ArcServer and GIS on the web. Some of these critiques have since been addressed such as the implementation of a GIS programming course. The issue regarding professional development was also touched on by exit surveys and the department has started to look into ways in which to address these issues. Strengths in the department include the broad range of topics, emphasis on creative thinking, supportive faculty, the availability of the GIS Certificate, emphasis on general and technical writing skills, and GIS and computer literacy experience. These comments support the undergraduate exit surveys in friendliness of the department and knowledge of the faculty. The responses also support the decision by the department to create a new degree program specifically focused on Geospatial Information Science.

Timeline for the Assessment

Indicate the timeline for the assessment of this learning outcome. While outcomes assessment must be conducted every year, not all student learning outcomes for a given program must be assessed every year. If the assessment of a particular learning outcome occurs on cycle or rotation, please describe and provide the rationale for the cycle/rotation below.

Each Semester

Yearly

Every other year

Other (please specify): If the assessment of Learning Outcome 4 occurs on a cycle or rotation, click here to describe and provide the rationale.

E. Summary of Assessment Results

Describe the overall results of the program assessment and program faculty members' interpretation of the assessment results.

What did the assessment reveal? What do faculty interpret the results to mean? What do the results suggest about the curriculum, teaching practices, and/or student achievement of the program learning outcomes?

Overall the results of the assessment suggest that the geography program continues to produce students who are well rounded and performing at acceptable levels. The approximate B average in core courses, major courses, and graduation/retention GPA indicates

that on average geography majors are performing well in learning critical geography information that will help them obtain employment following graduation. The exit and alumni surveys suggest that the department is doing a satisfactory job in terms of preparing students for employment as well as assuring that students are obtaining necessary knowledge at satisfactory levels prior to graduation.

F. Dissemination of Results

Describe the individual(s) or committee (e.g., a curriculum committee) responsible for reviewing and interpreting assessment data.

The Undergraduate Coordinator serves a dual role as Undergraduate Outcomes Assessment Coordinator and disseminates and gathers the rubrics from the core courses and disseminates undergraduate exit surveys. She then collects, inputs, and preliminarily evaluates the data and computes summary statistics.

Describe the process for sharing and discussing assessment results with program faculty.

The Assessment Coordinator writes and circulates (via e-mail) a draft report for review and comment by all faculty in the department. This is done in July in advance of an all-day planning conference held by the department the week before the fall semester begins, and discussion about the results, what they mean, and what to do with them subsequently occurs and is incorporated into a final draft of this report. This final draft is sent around a second time for final review before submission.

G. Program Improvements Based on Assessment

Based on the findings of this assessment, what changes are being considered or planned for the program?

Describe the actions that will be taken as a result of the discussion of the assessment evidence.

Over the past year the department has been working on the implementation of a new degree program in Geospatial Information Sciences because of the growth of the GIS Certificate as well as departmental specialties in geospatial technologies and techniques. We foresee the creation of this new BS degree (approved in March 2016) as a supplement to the geography degree program currently in place. The department anticipates that the program will continue to build on our reputation among students as being a department with strong faculty, teaching, and mentoring abilities. It is likely that enrollment in these core courses will continue to grow as a result of the establishment of the new degree program.

Students and Alumni remain satisfied overall with the geography program. The biggest complaint remains access to labs. However, we experimented with expanded lab hours, for the 2013-2014 school year, and found that most students did not take advantage of these extra hours in the lab. Overall, students continue to want lab access around the clock. The department has yet to find a safe and secure way to provide lab access, so this will unlikely change in the near future. Software has been implemented in the library and there will be a continued push to remind students of these facilities for completing their assignments when the lab is closed. For the most part, we get our majors in their junior year or at the end of their sophomore year. This impacts their ability to receive deep mentoring in geography as well as giving them the most appropriate degree completion path. Ideally, we would like to recruit more majors in their freshman and sophomore year in order to maximize their geography experience. To this end, we are continuing to focus heavily on recruitment efforts, especially in our lower-division general education courses, as well as through taking advantage of opportunities on campus such as the major fair, Welcome Week, and our many study abroad course offerings. Lastly, both a portion of student exit and alumni surveys press for a greater exposure to GIS related technologies, programming, and database management. We hope that the new Geospatial Information Science BS degree will help better serve those students wanting to enter into GIS and related technology fields, more specifically, while also bringing more students into the department as a whole.

Based on the findings of this assessment, what (if any) changes are planned for the assessment process?

For example, are there additional assessment data that may need to be collected? Are changes to the program assessment plan warranted?

The undergraduate committee, under direction of the new undergraduate advisor, is conducting a systematic review of the program and will be working on submitting and implementing a new Assessment Plan soon.

Describe the process for implementing these changes/planned program improvements.

The undergraduate committee, under direction of the new undergraduate advisor, is conducting a systematic review of the program and will be working on submitting and implementing a new Assessment Plan soon.

H. Assessment Tools

Please provide a copy of any assessment tools (questionnaire, scale, interview questions, etc.) here.

An individual rubric for each core course has been created by the department of geography that outlines the learning goals for each of the core courses. An exit survey created by the department of geography includes a variety of questions related to the overall experience in the department as an undergraduate student. Alumni surveys are also administered by the College of Arts and Sciences. Other information is taken from student records (degree sheets, transcripts, etc.).

Email to students for completion of exit survey:

Hello Geographers!

You are receiving this message because you either graduated in December 2015 or you will be graduating in a few weeks in May 2016. Congratulations on your achievements! Every year the Department of Geography conducts a survey of recent graduates to help us better serve future geographers in our department. The survey results are very helpful to us in determining how we can do better as a program at Oklahoma State. The results are also important because they are sent to the college and university to see how Geography compares to other departments across campus. I would ask that you please take a few minutes out of your day to fill out the survey. You can take the survey at the following link: <https://www.surveymonkey.com/r/6BB35H7> . If you would prefer to take the survey on paper, please let me know and I will be happy to provide a paper copy for you.

Your candid responses are greatly appreciated so that we can continue to do our best to provide an excellent education experience!

Thank you for your help. Please do not hesitate to contact me with any questions or concerns.

-Dr. Fekete

Exit Survey Questions:

1. Please rate your satisfaction level for the following items with this scale: very satisfied: 4 Satisfied: 3 Neutral: 2 Dissatisfied:1 Very Dissatisfied: 0
 - 1 Overall rating of your degree program 4 3 2 1 0
 - 2 Effectiveness of preparation for employment or graduate school 4 3 2 1 0
 - 3 Up-to-date proficiency in technical skills 4 3 2 1 0
 - 4 Marketability of skills for the workplace 4 3 2 1 0
 - 5 Quality of instruction 4 3 2 1 0
 - 6 Quality of advising 4 3 2 1 0
 - 7 Quality of departmental facilities (primarily labs) 4 3 2 1 0
 - 8 Quality and relevance of texts and instructional materials (lab manuals) 4 3 2 1 0
 - 9 Quality of graduate teaching associates (courses or labs) 4 3 2 1 0
 - 10 Departmental responses to student concerns 4 3 2 1 0
 - 11 Availability of faculty to students 4 3 2 1 0
 - 12 Availability of departmental resources to students (primarily labs) 4 3 2 1 0
 - 13 Usefulness of degree requirements and electives 4 3 2 1 0

- 14 Flexibility of degree programs 4 3 2 1 0
- 15 Academic standards of the department 4 3 2 1 0
- 16 Availability/access to clubs and other extracurricular activities 4 3 2 1 0

- 2. How did you decide to become a geography major at OSU?
- 3. What did you most like about geography at OSU? Least like?
- 4. What could be done to improve students' experiences in the Geography Department (departmental labs and otherwise)?
- 5. Are you completing the GIS Certificate with your degree? If yes, do you have any comments about the Certificate?
- 6. Have you been involved in an internship, research assistantship, or independent study with a faculty member? If yes, how would you rate your experience on the 0-4 scale from the previous page, and what impact has this experience had on your degree program and post-graduation plans?
- 7. Do you have any other suggestions or concerns that are not addressed on this survey?
- 8. What areas of the country are you willing to move to for employment?
- 9. What are your immediate plans?
 - a. Company, agency, or school: _____
 - b. Job title and/or duties: _____
 - c. Location (city/state): _____
 - d. Geographic skills to be used: _____
- 10. Contact information (please provide permanent, long-term information if possible)
 - a. Name: _____
 - b. Street: _____
 - c. City/State/Zip: _____
 - d. Phone: _____
 - e. Off-campus e-mail: _____