Date of Report: 9/1/2015
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 2014-2015: 30
Number of students graduated in 2014-2015: 14

B. Program Mission Statement
In the box below, provide the mission statement for the program.
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

D. Student Learning Outcomes
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 2014-2015 academic year:**
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?**
This includes all geography undergraduates. For the 2014-2015 year there were 8 undergraduate majors who completed the degree.

**How were students selected to participate in the assessment of this outcome?**
Graduated from OSU with a geography degree.

**Assessment Methods**

- ☐ 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 how the assessment method was implemented, administered, and/or conducted.**
For each graduating senior (2 in fall 2014, 5 in spring 2015, 1 in summer 2014 n=8 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

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

<table>
<thead>
<tr>
<th>Year</th>
<th>N</th>
<th>Core Courses</th>
<th>Major Block</th>
<th>Graduation/Retention</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014-2015</td>
<td>8</td>
<td>2.92</td>
<td>3.10</td>
<td>2.91</td>
</tr>
<tr>
<td>2013-2014</td>
<td>14</td>
<td>2.93</td>
<td>3.13</td>
<td>3.00</td>
</tr>
<tr>
<td>2012-2013</td>
<td>8</td>
<td>3.12</td>
<td>3.21</td>
<td>3.04</td>
</tr>
<tr>
<td>2011-2012</td>
<td>10</td>
<td>2.99</td>
<td>3.19</td>
<td>2.98</td>
</tr>
</tbody>
</table>
What do the results suggest about student achievement of this learning outcome?
This year's graduating cohort had very similar GPA averages as last year's cohort with the exception of a slightly lower graduation/retention GPA average. Compared to the 5-year averages, the GPA averages for core courses, major block, and graduation/retention GPA were essentially the same, the graduation/retention GPA being 0.05 lower than the overall average graduation/retention GPA. In general, students have been performing consistently from year to year (B average). This data reveals that students perform generally better in their major block than their overall graduation/retention GPA. This result is expected since usually students are more talented and enthusiastic when it comes to their major coursework. Furthermore, the 5-year average core (2.99) and major block scores (3.15) reveal that in general faculty continue to maintain high standards in the department.

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.

<table>
<thead>
<tr>
<th>Timeline for the Assessment</th>
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</thead>
<tbody>
<tr>
<td>☑ Each Semester</td>
</tr>
<tr>
<td>☐ Other (please specify):</td>
</tr>
</tbody>
</table>
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 2014-2015 academic year:**
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 2014-2015 year there were 8 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**

☒ 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.**

**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 2343/4203, 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. This year, the survey was not conducted as it is an odd year.

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

**Provide a summary of the results from the assessment of Learning Outcome 2.**
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 2343/4203, which is offered in both spring and fall. Statistics for this course is, therefore, an aggregate of both offerings in a given year.

### TABLE 2

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Rubric</td>
<td>N</td>
<td>Rubric</td>
</tr>
<tr>
<td>2343/4203</td>
<td>5</td>
<td>2.45</td>
<td>10</td>
<td>3.09</td>
</tr>
<tr>
<td>3333</td>
<td>13</td>
<td>2.67</td>
<td>10</td>
<td>2.48</td>
</tr>
<tr>
<td>4313</td>
<td>13</td>
<td>3.12</td>
<td>11</td>
<td>3.34</td>
</tr>
<tr>
<td>4323</td>
<td>9</td>
<td>2.98</td>
<td>3</td>
<td>3.33</td>
</tr>
<tr>
<td>4333</td>
<td>3</td>
<td>3.58</td>
<td>2</td>
<td>3.0</td>
</tr>
<tr>
<td>4343</td>
<td>6</td>
<td>2.94</td>
<td>4</td>
<td>2.58</td>
</tr>
<tr>
<td>4353</td>
<td>6</td>
<td>2.75</td>
<td>5</td>
<td>2.5</td>
</tr>
</tbody>
</table>

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

### TABLE 3

<table>
<thead>
<tr>
<th>Year</th>
<th>Undergraduate GIS Certificate Recipients</th>
<th>Undergraduate Geography Graduates</th>
<th>Percent of Geography Graduates</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014-2015</td>
<td>2</td>
<td>8</td>
<td>50%</td>
</tr>
<tr>
<td>2013-2014</td>
<td>6</td>
<td>14</td>
<td>43%</td>
</tr>
<tr>
<td>2012-2013</td>
<td>3</td>
<td>8</td>
<td>38%</td>
</tr>
<tr>
<td>2011-2012</td>
<td>4</td>
<td>10</td>
<td>40%</td>
</tr>
<tr>
<td>2010-2011</td>
<td>3</td>
<td>11</td>
<td>27%</td>
</tr>
</tbody>
</table>
Table 4 summarizes seven Geography-specific questions from the 2014 Alumni Surveys relating to technical and computer skills in the workplace. Alumni Surveys are completed on even years only, therefore this information is repeated from the 2013-2014 report.

<table>
<thead>
<tr>
<th>Skill (n=15)</th>
<th>Use Regularly</th>
<th>Use occasionally</th>
<th>Do not use</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. GIS/Database mgmt.</td>
<td>58.4%</td>
<td>5.6%</td>
<td>36.0%</td>
</tr>
<tr>
<td>2. GPS</td>
<td>11.1%</td>
<td>18.1%</td>
<td>70.9%</td>
</tr>
<tr>
<td>3. Remote sensing</td>
<td>0.0%</td>
<td>11.1%</td>
<td>88.9%</td>
</tr>
<tr>
<td>4. Computer mapping</td>
<td>23.6%</td>
<td>22.2%</td>
<td>54.15%</td>
</tr>
<tr>
<td>5. Qualitative methods</td>
<td>12.5%</td>
<td>34.7%</td>
<td>52.8%</td>
</tr>
<tr>
<td>6. Quantitative methods/stats.</td>
<td>18.1%</td>
<td>16.7%</td>
<td>65.3%</td>
</tr>
<tr>
<td>7. Field work/surveys</td>
<td>12.5%</td>
<td>29.2%</td>
<td>58.4%</td>
</tr>
</tbody>
</table>

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 2343/4203, 4313, and 4323. However there were courses that also saw an increase in student performance which were 3333, 4343, 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 2014-2015 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 (5 in 2014-2015). Three different instructors teach this class, one in the fall and two in the spring. There was a slight range of summary averages this year from 2.2-2.8 (denoting approximately proficient knowledge). Overall, each of the four outcomes was scored fairly consistently, and the rubric average of 2.45 for the 5 students is the same as the 4-year average of 2.44 for 40 total students.

For GEOG 3333 (Spatial Analysis), weekly individual exercises are the primary basis of evaluating students (13 students). Outcome averages ranged from 2.3-3.3, in the essential/high essential knowledge category in all 4 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. Furthermore, 2 students were not evaluated on the rubrics because they stopped attending classes, therefore the averages are calculated based on the 11 students scored. However, the overall rubric average of 2.67 for the eleven students scored is higher than the 4-year average of 2.3 for 47 total students. Therefore, despite the anxiety students express about taking 3333, on average students have become slightly more proficient.

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 (13 students). The five outcomes ranged between 2.6 and 3.13 (proficient/high), indicating quite satisfactory levels of student learning. These averages represent a decrease from previous years.
Averages this year were likely lower than expected because two students stopped attending class mid-semester, but did not drop the class. Therefore, their rubrics were scored as mainly zeros, significantly dropping the overall group averages. 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 3.12 for the 13 students is approximately the same as the 4-year average of 3.11 for 49 total students.

GEOG 4323 (Computer Cartography) uses lab assignments, exams, and an individual final mapping project to assess students (9 in Spring 2015). 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 outcomes averaged 2.78-3.22 (ranging from proficient to highly proficient). The overall rubric average of 2.98 for the 9 students is lower than the 4-year average of 3.11 for 39 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 3.3-3.7 (proficient). Overall, the overall rubric average of 3.58 is significantly higher than past average scores, no doubt reflecting, in part, the teaching efforts and revised course materials of the new faculty member currently in charge of the course. Additionally, the overall rubric average of 3.58 is significantly higher than the 4-year average of 2.165 for 10 total students. Student proficiency in this course continues to climb.

GEOG 4343 (Natural Resource Applications of GIS) had a total of 6 undergraduate students enrolled in the course. Tools used to evaluate students included lab assignments, homework, and exams. All outcomes averaged between 2.83 and 3.17 (high proficiency). The overall rubric average of 2.94 is slightly higher than the 4-year average of 2.55 for 23 total students.

GEOG 4353 (Socioeconomic Applications of GIS) had a total of 6 undergraduate students enrolled in the course in Fall 2014. Tools used to evaluate students included lab assignments, tests, class discussions, and final projects. All outcomes ranges between 2.5 and 3 (essential knowledge). The overall rubric average of 2.75 is only slightly lower than the 4-year average of 2.8 for 15 total students.

Overall comparison with core course transcript evaluation: The average rubric score for the 2014-2015 reporting period was 2.93. This is extremely close to the core course GPA (Table 1) average of 2.92. 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 4/8 graduating students obtained the GIS certificate (50%), significantly higher than the 5-year average of 39%. This denotes a major increase in recent years. Many of our majors are obtaining GIS-related jobs after graduation and this might be leading to more students pursuing the GIS Certificate.

The information from Table 4 has been repeated from last year's report due to surveys being conducted on even years only. The results of Table 4 presented here are repeated from the 2013-2014 report. Table 4 shows that although only ~1/3rd of the 15 alumni surveyed have jobs in either GIS or related fields directly, the geographic skills that are being used by alumni in the workforce are highly variable, with the majority of alumni using GIS regularly at their place of employment. The diversity of both quantitative and qualitative skills used in the workplace no-doubt reveals the differences between GIS and non-GIS oriented jobs, as well the diversity of industries our students enter—GIS analyst, teaching, and consulting for utility companies, including wind energy, as well as oil and gas industries.
<table>
<thead>
<tr>
<th>Timeline for the Assessment</th>
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<tbody>
<tr>
<td>☒ Each Semester</td>
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<tr>
<td>□ Yearly</td>
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<td></td>
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<tr>
<td>☒ Every other year</td>
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</tr>
<tr>
<td>□ Other (please specify):</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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 2014-2015 academic year:
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 2014-2015 year there were 8 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
☐ 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.
Described earlier in Outcome 1

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

Provide a summary of the results from the assessment of Learning Outcome 3.
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), GEOL (1), SOC (2), NREM (1), HIST (2), MUSI(1), REL (1), MKTG(1), PHIL (1), HDFS(1), and MSIS (2). The GPA average for these 16 courses (two courses each for 8 graduates) was 2.875, much lower than last year’s average of 3.25 for 28 courses (14 graduates).

What do the results suggest about student achievement of this learning outcome?
The various GPA calculations reveal that recent Geography graduates average about a B in the core courses, major only courses, non-GEOG related courses, and overall graduation/retention GPA. These results remain consistent over time and reveal an overall healthy undergraduate geography program.

**Timeline for the Assessment**

- [x] Each Semester
- [ ] Yearly
- [ ] Every other year
- [ ] Other (please specify)
D4) Student Learning Outcome #4: 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 2014-2015 academic year:
Students participate in this learning outcome by reporting on their intended plans following graduation. Alumni also report on their time spent in the geography program one and five years after graduation.

How many students were included in the assessment of this outcome?
Due to the nature of the state of advising in the geography department for the 2014-2015 year (advisor on sabbatical, temporary advisor, hiring of new advisor), many of the surveys were not able to be completed.

How were students selected to participate in the assessment of this outcome?
Undergraduates are asked to complete the exit survey upon graduation. Alumni surveys are conducted by the college.

Assessment Methods
☒ Survey
☐ Rating of skills (e.g., rubrics)
☐ Analysis of written artifacts
☐ Comprehensive, certification, or professional exam(s)
☐ Oral presentation
☐ Course project
☒ Satisfaction Survey
☐ bench-marking
☐ 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): 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. This survey is attached to the Undergraduate Assessment Plan. 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. Due to the nature of the state of advising in the geography department for the 2014-2015 year (advisor on sabbatical, temporary advisor, hiring of new advisor), many of the surveys were not completed. Two of the eight students did complete the survey, however the data will not be reported because it is not representative of the whole graduating class.

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

Provide a summary of the results from the assessment of Learning Outcome 4.
The results of the last completed Alumni Survey were reported in the 2013-2014 annual report and will be repeated here. The Alumni Survey reveals the most information regarding employment skills and capabilities. Table 4 under Outcome 2 discussed past graduates’ self-reported usage of geographic skills in the workplace and that information is relevant here as well but is not repeated. Instead, this section will focus on job titles and other information reported on the Alumni Surveys.

Of the 15 (out of 15) employed alumni, 5 specifically mention GIS in their titles, while 2 additional alumni are likely to use GIS and related skills some of the time (transportation logistics and utilities supervisor). The remaining alumni are employed in a wide variety of positions, including teaching, farming, health fields, accounting, and private corporate consulting. This illustrates the broad interests of many of our students. Additionally, 1 student is currently enrolled in a graduate program.
Responses to open-ended questions GEOG12 (what additional skills would have been helpful to you) and GEOG13 (primary weaknesses of program) continue to reveal a strong desire for improvements and additions to courses covering technical skills, including more real world problem solving in applied GIS/GPS technologies, database management and computer programming. Additionally, some students pressed for more emphasis on acquiring critical writing skills.

The Exit Survey results will not be reported in this year’s report due to the conflicts stated above.

**What do the results suggest about student achievement of this learning outcome?**
As expected, our students enter a diverse variety of careers both directly and indirectly related to geography. This is expected given the diverse nature of the discipline and the fact that not all students necessarily complete their degree with the intention of using it directly. In fact, many of our students are attracted to geography because of its diverse, inter-disciplinary, and holistic approach to problem solving.

**Timeline for the Assessment**
- [x] Each Semester
- [ ] Yearly
- [x] Every other year
- [ ] Other (please specify):
D5) Student Learning Outcome #5: Express positive feedback on their experience as a Geography undergraduate major.

Identify opportunities for students to learn this outcome during the 2014-2015 academic year:
This information comes from exit surveys administered to all geography majors upon graduation. It also includes information from the alumni surveys as well as statistics regarding how many semesters were spent at OSU, as a geography major at OSU and how many transfer hours each student had. Students only participate in exit surveys and alumni surveys.

How many students were included in the assessment of this outcome?
Due to the nature of the state of advising in the geography department for the 2014-2015 year (advisor on sabbatical, temporary advisor, hiring of new advisor), many of the surveys were not able to be completed. Alumni surveys are only conducted on even years. The statistics on semesters at OSU, semesters in geography, and transfer hours were collected from all 8 graduating geography majors.

How were students selected to participate in the assessment of this outcome?
The students graduated from OSU with a major in geography.

Assessment Methods
☒ 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): Graduation and retention statistics

Describe the how the assessment method was implemented, administered, and/or conducted.
Method 5a: described earlier (2c)
Method 5b: described earlier (4b)
Method 5c: For each graduating senior, the number of semesters spent at OSU, as a Geography major, and their total transferred credit hours are tabulated. These totals are averaged to get a snapshot of whether or not students are graduating on time. These statistics were recorded for all eight graduates during the reporting year.

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

Provide a summary of the results from the assessment of Learning Outcome 5.

5a and 5b were not completed this year due to issues mentioned above in Outcome 4 regarding advisor transitions.

Table 7 summarizes the average graduation/retention and transfer credit statistics.

<table>
<thead>
<tr>
<th>Statistic</th>
<th>N</th>
<th>Semesters at OSU</th>
<th>Semesters in GEOG</th>
<th>Transfer hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014-2015</td>
<td>8</td>
<td>9.4</td>
<td>7.0</td>
<td>44.0</td>
</tr>
<tr>
<td>2013-2014</td>
<td>14</td>
<td>7.6</td>
<td>5.2</td>
<td>33.7</td>
</tr>
<tr>
<td>2012-2013</td>
<td>8</td>
<td>8.9</td>
<td>5.8</td>
<td>23.0</td>
</tr>
</tbody>
</table>
What do the results suggest about student achievement of this learning outcome?

Results from 5a and 5b not reported.

Regarding Table 7, this year’s graduates were higher than our 5-year average in terms of the duration they spent at OSU (9.375 semesters), their time as Geography majors (7 semesters), and the total number of transfer hours (44). These results show a growing trend on campus, and more than likely elsewhere in the United States- more students taking course work off campus (transfer students), a longer time until graduation (very few students graduate in 4 years, but fewer hours are being spent at OSU), and a longer time to find one’s academic home or major (in geography, typically the end of a student’s junior year). This makes it difficult for the advisor to effectively mentor students as deeply as she would like, no doubt leading, in part, to the unpreparedness students increasingly feel, as they have had increasingly less time in their major. The averages for time spent at OSU and time spent as a geography major were also likely skewed because one student, who is employed full time in a career-track position elsewhere on campus, spent 17 semesters at OSU and 15 semesters in the Geography department.

Timeline for the Assessment

☑ Each Semester
☐ Yearly
☐ Every other year
☐ Other (please specify):
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 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 time to degree average remains slightly above 8 semesters suggesting that geography majors as a whole are able to complete their degree relatively quickly. Though exit surveys and alumni surveys were not completed this year, previous results indicate that geography majors find employment and are generally satisfied with the level of preparedness that the OSU geography department provides for them.

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.
Given the continued growth of jobs in the GIS and Geospatial related fields, our department continues to offer a large variety of introductory, intermediate, and advanced GIS courses, as well as computer cartography, remote sensing, and GPS Field Techniques. With the hire of a recent faculty member and the creation of 2344 (discussed above), we expect this strength to continue to grow. Our strong regional reputation attracts companies seeking our graduates with such skills, as evidenced by the fact that at least 5 of this year’s graduates found employment in GIS and related fields. Given the diversity of interests among the department’s faculty, as well as the diversity of interests students find in geography, we will continue to offer courses on a wide variety of topics. As a result of this sustained and growing interest in GIS and related technologies, the department is in the process of creating an additional undergraduate degree program in Geospatial Information Science (BS).

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. For the most part, we get our majors in their junior year. This impacts their ability to receive deep mentoring in geography. Ideally, we would like to recruit more majors in their freshman and sophomore year in order to maximize their geography experience, and will continue to focus heavily on recruitment efforts, especially in our lower-division general education courses. Additionally, we hope that our new lower division course offering, GEOG 2344, will serve as a gateway class for recruiting additional freshman and sophomore geography majors. 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 creation of a Geospatial Information Science BS degree will also help better serve those students wanting to enter into GIS and related technology fields, more specifically.

**Based on the findings of this assessment, what (if any) changes are planned for the assessment process?**
The change in appointment for the undergraduate advisor will likely bring changes in the assessment process in the future.

**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
A 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.).