

Department of Geography
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Degree Program(s) Assessed	Assessment Methods	Number of Individuals Assessed
Bachelor of Arts	Instructor Evaluations – Core Courses	93/47
Bachelor of Science	Transcript Evaluation	10
Bachelor of Science (resource mgmt. option)	Graduation and Retention Statistics	10
	Exit Survey	10
	Undergraduate Alumni Survey	0

Analysis and Findings

Overview: The Department of Geography recently implemented a new undergraduate assessment plan, and this report marks the first year of its execution. Due to the near-complete overhaul of the departmental plan, there is little opportunity to make annual comparisons at this time. This report will focus on establishing baseline values for several of the assessment methods listed above. The department successfully obtained 100% participation in assessment this year; both December 2003 graduates and all eight May 2004 degree recipients were assessed.

Three new assessment methods, instructor evaluations in core courses, transcript evaluations, and compilation of graduation and retention statistics, are included to provide quantitative, direct and indirect assessments of student progress in individual courses, in all Geography courses, and at OSU. Brief tabular and text summaries of the average scores for these methods are presented later.

A fourth assessment method, the undergraduate alumni survey, is unchanged from the previous assessment plan. However, this survey is conducted every other year, and the results from the 2002 survey were reviewed in last year's report. Next year, the results from the 2004 survey will be available for inclusion in the departmental report.

The final assessment method, an exit survey, collects much of the same information as an exit interview used previously, though in a more compact and quantifiable format. This provides the primary basis of year-to-year comparisons in this report. Overall, the results and comments on the exit survey strongly match results from past exit interviews. The openness, friendliness, and accessibility of the faculty are frequently noted as what students like best about the department, closely followed by the diversity of the course offerings. Answers to the questions about what students like least, or what could be done to improve the department, show little consistency and have no clear trends.

Expected Student Outcomes for Geography Majors: Upon graduation from Oklahoma State University with a bachelor's degree in Geography, and in concordance with the department's mission and goals, students are expected to be able to:

1. Demonstrate an understanding of the basic concepts of Geography as defined by its five themes: location, place, regions, human-environmental interactions, and movement;
2. Demonstrate technical skills in: collection and analysis of spatial data, computer cartography, and geographic information systems (GIS);
3. Integrate the perspectives of several related academic disciplines to interpret the human/cultural landscape;
4. Demonstrate an appreciation for the various dichotomous approaches in Geography: human vs. physical, regional vs. topical, and qualitative vs. quantitative;
5. Apply geographic knowledge and skills to a range of problems faced by industry and the government;
6. Express positive feedback on their experience as a Geography undergraduate major; and
7. Find employment that makes use of geographic skills and techniques or to pursue graduate studies in Geography.

Instructor Evaluations: All geography degree plans require a combination of the following "core" courses: Introduction to GIS (GEOG 2343), Spatial Analysis (3333), Field Techniques and Geodata Collection (4313), Computer Cartography (4323), Remote Sensing (4333), GIS: Natural Resource Applications (4343), GIS:

Socioeconomic Applications (4353), and History and Philosophy of Geography (4413). In order to obtain direct assessments of student learning outcomes in each of these courses, the instructors and the Assessment Coordinator collaboratively developed evaluation rubrics for each of these courses, containing between two and five learning outcomes. At the end of each semester, the instructors of the core courses evaluate all Geography majors enrolled in their courses with the rubrics. This resulted in 93 total student-course evaluations for 2003-2004 for 47 individual geography majors.

These rubric evaluations assess student outcomes 1 through 4 above. All rubrics are evaluated on a 0, 1, 2, 3, or 4 scoring basis, with 4 representing advanced development of the designated skill, 3 representing proficiency, 2 representing adequate or "essential" mastery, 1 representing minimal learning, and 0 representing inadequate mastery of the skill. The rubrics are not repeated here due to space limitations, but summary statistics are reported for future reference. Table 1 presents the average rubric score for each course objective, for all objectives pooled, and the average student grade (GPA).

Evaluation scores show strong consistency across the objectives for each course, reflecting a consistent set of expectations and scoring patterns by the instructors. The strongest pattern evident in Table 1 is that for all but two courses, the average GPA of students on a 4 point scale is notably higher than the average rubric score for all objectives for a course (also on a 4 point scale). Many instructors noted on their rubric forms that bonus points, high homework scores, and curved grading often results in students earning a higher letter grade than their work otherwise indicates. One course had near perfect correspondence between rubric average and grade average (4323), and one course had a distinctly lower GPA than the rubric average (3333).

TABLE 1 — CORE COURSE RUBRIC EVALUATION SUMMARIES

Course #	N	Obj. 1	Obj. 2	Obj. 3	Obj. 4	Obj. 5	Overall	GPA
2343	21	2.57	2.43	2.52	3.24	n/a	2.69	3.29
3333	19	3.11	3.05	2.89	2.89	2.58	2.91	2.53
4313	11	2.91	2.27	2.55	2.82	n/a	2.64	3.11
4323	19	3.05	2.68	2.74	2.74	2.59	2.78	2.79
4333	7	2.00	2.00	2.00	n/a	n/a	2.00	3.00
4343	4	2.75	3.00	3.00	n/a	n/a	2.92	3.25
4353	9	2.33	2.67	n/a	n/a	n/a	2.50	3.22
4413	3	2.33	2.67	2.67	2.33	1.67	2.33	3.00

Transcript Evaluation: Four statistics are obtained or computed from the final transcripts of graduating Geography majors: GPA in the core Geography courses, overall GPA in the major block of the Geography degree plan, overall graduation/retention GPA, and institution (OSU) GPA. These statistics are complementary, indirect assessment methods for student outcomes 1 through 4 and are easy to obtain. Table 2 presents summary statistics for the ten geography degree recipients in 2003-2004.

TABLE 2 — GPA AVERAGES FOR DEGREE RECIPIENTS, 2003-2004

Degree	N	Core GEOG	Overall GEOG	Grad/Ret.	Institution
B.A.	3	2.583	2.741	2.720	2.671
B.S.	7	3.367	3.445	3.210	3.166
Overall	10	3.132	3.234	3.063	3.017

Institution GPAs are slightly lower for all groups than the graduation/retention GPA, indicating students earn very slightly lower grades at OSU after transferring from other institutions. However, this difference is minimal and indicates that the transition to OSU (for those students coming from another institution) is relatively smooth. Also, reflecting the more technically demanding skills of the core courses, the average GPA of core courses is slightly lower than for all Geography courses taken. The reasons for the notable B.A./B.S. difference in GPA is addressed below.

Graduation and Retention Statistics: Another indirect piece of information involves documenting the number of semesters each student spends at OSU and as a geography major. This gives some indication about whether students are graduating in a timely manner. Also, students who change their majors away from geography are asked, when possible, for their reasons as another measure of student satisfaction, and assess student outcome 6. Direct measures of satisfaction are obtained on the exit survey.

The ten 2003-2004 graduates averaged 10.0 regular fall and spring semesters at OSU prior to graduation, and spent nearly eight (7.8) total semesters as geography majors. Only two students finished in four years or less. Deducting the first year when most freshmen are not permitted to declare a major, these numbers depict a nation-wide trend of students taking longer to graduate, in this case five years (one year as an undeclared freshman, four years in the degree program). The statistics for this group of students are partly influenced by two individuals, one who enrolled in 17 semesters and another in 15 semesters, before graduation. Both these students had chronic GPA problems (these were also two of the three B.A. students) and reduced their course loads to one or two courses per semester in order to achieve better grades and graduate. Most of these ten students took at least a few summer school courses, but the difficulty in equating summer terms with regular semesters led to the decision to ignore summer enrollments. Factoring in that half of these students were transfers from other institutions, and that most took at least a few summer school courses, most would have taken even longer to graduate.

Since the Assessment Coordinator is also the Undergraduate Advisor, he has an opportunity to indirectly gather information on why students require more than four years to graduate. In large part, these students decrease their enrollments in their senior year due to "life choices" of which examples include: boyfriend/girlfriend/spouse is not graduating until later, potential December graduates realizing that the graduate school or job market will be better in the summer, and the realization that they are still eligible for financial aid. Moreover, just this past semester, three or four potential May graduates chose to drop a course in January and make up the credits in summer school, thereby graduating in August but not significantly impacting or deferring jobs or other plans. No students have failed to graduate in a timely manner due to class unavailability.

No students changed their majors away from Geography to another major on campus this past year, though one student is leaving the university to pursue Geography at different institution in another part of the country. Several students did not enroll in the fall or spring semesters and have not returned to OSU, but such students are chronically hard to reach because they usually have vacated their local addresses and phone numbers.

Exit Survey: The written exit survey contains sixteen categories for students to rank the department on a scale of 0 to 4, plus a handful of open-ended questions to assess areas not covered by the quantifiable questions, in order to evaluate student outcomes 6 and 7. Table 3 summarizes the average scores for each of the sixteen scored questions, ranked from highest average rating to lowest.

Several open-ended responses requested greater lab availability and hours, but lab quality co-ranked as the highest item on the survey. The access/availability issue shows up as item 16 and ranks near the bottom. Some puzzling results include the low ranking of item 10; perhaps because Outcomes Assessment is performed as students are graduating, the impacts of student-input driven changes stemming from assessment results are transparent to them; only at graduation do they see that mechanisms exist for obtaining input for improvement. The low rating of item 16 is also inexplicable, given the broad distribution by flyer postings and e-mail distribution announcing Geography Club meetings, and strong attempts by Geography Club leaders to publicize their activities.

TABLE 3 — EXIT SURVEY AVERAGE RATINGS (N=10)

Item	Aspect of your educational experience	Avg. Rating
7	Quality of departmental facilities (primarily labs)	3.6
14	Flexibility of degree programs	3.5
3	Up-to-date proficiency in technical skills	3.5
1	Overall rating of your degree program	3.4
5	Quality of instruction	3.2
6	Quality of advising	3.2
13	Usefulness of degree requirements and electives	3.2
15	Academic standards of the department	3.2
11	Availability of faculty to students	3.1
4	Marketability of skills for the workplace	3.0
8	Quality and relevance of texts and instructional materials	3.0
10	Departmental responses to student concerns	2.9
9	Quality of graduate teaching associates (courses or labs)	2.8

12	Availability of departmental resources to students (primarily labs)	2.8
16	Availability/access to clubs and other extracurricular activities	2.5
2	Effectiveness of preparation for employment or graduate school	2.4

The open-ended questions pursue a number of important characteristics, such as whether students had internships or independent study opportunities, and their future plans. All students who did an internship or independent study rated their experiences very highly.

In the future plans section, the following were noted:

<u>Current or imminent activity</u>	<u>No. of students</u>
Graduate school in geography:	2
Graduate school in related area:	1 (urban planning)
Employment in geographic technology:	2 (cartographer, mapping technician)
Employment in related area:	1 (national park interpreter)
Uncertain/pursuing employment:	4

These patterns strongly match past years' results in terms of the distribution of students and the high proportion of those still seeking employment upon graduation. This clearly strongly influences the low rating of Item 2 on the survey, as there is a relatively strong correlation between employment status and each student's rating of the department on this item.

Alumni Survey: In even-numbered years, the OSU Bureau for Social Research conducts the OSU Undergraduate Program Alumni Survey for the Office of University Assessment. This survey should be performed in 2004, but the results will not be available in time for this report and will be reported next year. The survey consists of seventeen common questions and sixteen department-specific questions developed by the Undergraduate Committee, and are intended to assess student outcomes 2, 5, 6, and 7.

Uses of Assessment Results

The information gathered via assessment is used annually to improve undergraduate instruction. The Undergraduate Committee uses assessment as one of its primary means of gauging student satisfaction with the program, detecting and reporting trends and concerns to the faculty as a whole, and making and implementing recommended changes. The Undergraduate Advisor is also the Assessment Coordinator, so there is strong integration of these two related activities.

Overall, there is high student satisfaction with the faculty members, the diversity of courses offered, the technical skills imparted by our core courses and the GIS Certificate, and the flexibility of degree plans. Other than students who did not return to OSU, the department lost no majors in the past year, and the Undergraduate Advisor/Assessment Coordinator has not noted any specific or consistent negatives with respect to student comments and performance. Therefore, as in the past several years, no specific curricular or programmatic changes appear to be necessary.

The primary concern of most students is the availability of labs after hours. This is an annual complaint. However, several years ago the department established evening hours and required graduate TAs to take turns staffing the lab as part of their duties. However, so few students took advantage of this opportunity that it was discontinued after one year. Financial constraints prevent specially hiring additional staff for evening hours. Past experience showed that students said they wanted evening hours, but then did not partake of them. Part of the issue may be that they want to come in during evenings on their own schedule, not what the department offers. More than one undergraduate expressed a desire for his/her own key to the building and labs, which is not going to happen.

The last-place rating of Item 2 on the exit survey, the effectiveness of preparation for employment or graduate school, will be reported to the faculty. Hopefully, the faculty can determine strategies for finding out why students rate the department relatively poorly on this item, and then develop an approach to addressing these concerns.

To summarize the overall impressions of the Outcomes Assessment activities and processes for 2003-2004, the department is serving its students well in all major areas, areas of concern are recurring but difficult to address (desire for more lab sections and evening lab hours), and the new assessment methods are much easier to implement and have already provided more measurable results to gauge student satisfaction and learning outcomes.