PROGRAM REVIEW REPORT

June 2017

1.	**Reporting Institution**		Eastern Illinois University
2.	**Program Reviewed**		B.S. in Geography (45.0701)
3.	**Date:**		June 2017
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5. Overview

In AY 08/09, the program had 7 tenure/tenure-track Unit A faculty, 3 annually contracted faculty, and 1 academic service professional. In AY 15/16, the program had 8 tenured Unit A faculty, 2 annually contracted faculty, and 1 academic service professional. During this time, 2 Unit A faculty retired and 3 new Unit A faculty were hired in the areas of biogeography, geomorphology, and GIS.

Geography's breadth, depth and employment opportunities are well suited for curricular flexibility. Recent curricular revisions have created a program consisting of 4 core courses, mandatory exposure to courses in geospatial techniques, and options where students choose from a variety of courses in human or environmental/physical geography. The program currently exposes students to 5 learning and career objectives: geographic data creation and analysis; the geography of places and regions; the human modification of the environment; human traits and patterns; and human/environmental change over time.

Illinois does not require that geography be taught in middle or high school. This results in few, if any, students arriving as freshmen with geography as their major. 82% of our alumni reported having discovered geography by having enrolled - usually by sheer chance - in 1 of our general education courses or were told about it by their academic advisor. An additional 11% were exposed to geography at a community college prior to transferring to EIU. Majors declined from 56 to 30 from Fall 2008 to Fall 2015 (-46%). Despite this, the program continually ranked #2 (out of 7 geography programs at state universities) in the number of majors per total number of undergraduates enrolled. Other universities have also experienced negative trending geography enrollment (Geography Majors % Change / Total Undergraduate % Change): NIU -51/-18; SIUC -46/-18; ISU -20/+2. Despite declining enrollments, the

geography program continues to produce positive gross revenue according to recent data released by the university.

Achievements: Since the last review, 45 students have had an internship experience. Faculty members have authored over 40 peer-reviewed publications, presented over 80 scholarly papers and posters (many co-authored with students), and obtained $40,000 in research funding. Faculty volunteered for, were active in, and provided leadership for numerous professional organizations; served and held positions of leadership on dozens of department, college and university committees; mentored nearly 50 student research projects (many funded by grant money); earned a dozen Achievement and Contribution Awards as well as numerous other EIU and non-EIU teaching/research/service awards; and reviewed over 50 scholarly articles, books, book chapters, or other texts.

6. Major Findings and Recommendations

6.a Description/assessment of any major changes in the program/disciplinary context

[1] Changes in overall discipline or field. Five new areas of disciplinary emphasis have emerged since our last review: 1) increased understanding of the value of GIScience and spatial reasoning; 2) ongoing growth in the number of GISci jobs; 3) greater use of citizen science/social media in obtaining data for analysis; 4) greater recognition of the importance of human impacts on the environment; and 5) new interdisciplinary 'fields' of urbanization science and land change science. Our program has followed these trends through curriculum revision to promote and create new, relevant courses in GISci; the hiring of three new faculty in the areas of biogeography, physical geography, and GISci; and development and revision of courses in land change science, GISci and environmental/physical geography.

[2] Student demand. The program's share of College of Science credit hour production remained steady (11%) during the entire review period [data from COS office]. Geography courses are found in 9 interdisciplinary minors: Anthropology, Asian Studies, Broadcast Meteorology, Earth Science, Environmental Studies, Environmental Sustainability, GISci, Latin American Studies, and Rural Studies. Further, GISci is used by other programs (*e.g.* School of Business, Biology and the School of Technology) that utilize geography courses as part of their curriculum. Our discipline's breadth and interdisciplinarity bodes well for collaborative opportunities with other programs across campus that explore a myriad human and physical environments, but which lack our faculty's unique, spatial expertise.

[3] Societal needs: Geography—the study of places and the relationship between people and their environment—is necessary to understand and make informed decisions about global problems. Geographic information and geospatial, or location-based, technologies are growing sectors of the U.S. economy, influencing many facets of life, from the use of cellular phones and apps to monitoring the spread of deadly diseases. The proliferation of these technologies has increased demand for those who can analyze and interpret geographic information. The U.S. Department of Labor projects that cartography and photogrammetry jobs (geographic information specialists) will increase by 30% from 2014 to 2024 (compared to 6.5% job growth across all sectors), making it the 15th fastest growing job sector in the country. Other geography-related sectors projected to grow are meteorologists (+9%), environmental scientists (+11%), and post-secondary geography teachers (+13%).

[4] Institutional context for offering degree: Geography is an important part of a general education and/or liberal arts curriculum. Its interdisciplinary nature affords students an opportunity to create unique, personalized degree experiences. Students can choose geography as a stand-alone degree or minor, or they may take coursework to earn a certificate or augment spatial understanding as part of another degree program (e.g. biology, business, technology, political science.)

6.b Description of major findings and recommendations, including evidence of learning outcomes and identification of opportunities for program improvement. .

Student Learning Assessment Program feedback for the geography evaluation activities continues to be strong, with the latest (August 2016) response deeming department efforts as "exemplary." Since 2008, our program has been classified "mature," meaning submissions are only required every other year. In 2010, the Geography program was recognized with the Provost's Award for Achievement in Academic Assessment. In accordance with assessment pillar #1 of the program, graduating seniors submit portfolios of work completed throughout their time in the geography program. Overall, the mean grade assigned to all portfolios by the evaluating faculty indicated students are acquiring and retaining a "significant grasp" of the department's goals and objectives (19% = superior; 69% = significant/satisfactory; 12% = nominal learning). This analysis began over 10 years ago and both the percentage of participating students and their aggregate level of achievement have remained remarkably steady. In pillar #2, individual classes are assessed to determine if appropriate sub-goals of the program are met. In lower division classes, pre- and post-tests are used. Upper division courses typically embed questions in final exams (78% = superior or significant; 22% = satisfactory). Courses deemed "satisfactory" were lower-level general education courses populated mostly by non-majors. Pillar #3, our newest, uses rubrics to assess writing and speaking abilities

and is linked to university-wide writing and speaking goals (45% = superior; 55% = satisfactory). Faculty members of the program have deemed that our majors are achieving a significant grasp of material based on results from our three assessment pillars. A quantitative reasoning assessment tied to new university learning goals will soon be implemented.

Approximately 110 students who received a major or minor from the program from 2008 to 2015 were emailed a 10-question survey with 38 students responding (35% response rate). Alumni survey results include: 75% reported being employed or in graduate school; 85% sought employment in a geography-related field following graduation, of those 36% had no difficulty finding employment, 39% found the experience somewhat difficult, and 24% found it to be very difficult. Eighty percent of those who found jobs use skills learned from the Geography program more than once a week. When asked to rank (1st-2nd-3rd) which segment of geography proved most beneficial after graduation, Human scored 10-7-15, Physical scored 9-18-6, and Techniques scored 15-7-12. Of the 38 responses, 32 (84%) were very or somewhat satisfied with the education they received from the geography program, 3 were neutral, and 3 (8%) were somewhat or very unsatisfied.

6.c Description of actions taken since the last review, including instructional resources and practices, and curricular changes.

Assessment feedback has informed/influenced program changes. Past assessments, reviews, and evaluation feedback indicated demand for the three new hires. This led to the creation of a new course, GEO 1120G: The Natural Environment, a course designed to become a gateway for students entering studies in Physical Geography. Curricular revisions introducing two degree options, Human and Environmental/Physical, along with updates to the geography and GISci minors, were implemented in 2015. Further, all students are now required to take courses in geospatial techniques - an area where many of our graduates find employment. Curricular changes also increased faculty scheduling flexibility to help offset expected loss of Unit B personnel and budget uncertainty. The new curriculum aligns with other programs from across the country that focus broadly on core areas of human and environmental/physical geography and geospatial techniques.

6.d Description of actions to be taken as a result of this review, including instructional resources and practices, and curricular changes.

As a result of this review, our faculty have been able to address and keep focus on university, college and department changes and priorities. Plans include updating our assessment tools to align with changes in our curriculum. Specifically, we plan to align

our learning goals with the new options in our curriculum. We also are discussing the possibility of moving our exit assessment from the portfolio to an online option. In terms of curriculum, we will continue to enhance our GIS offerings to meet the demands of potential employers. A couple of ideas include the development of: a general education course in mapping theory and techniques to attract majors, and a GIS Project Design course to provide students with experience designing, and a real world GIS analysis project as a capstone course. Finally, we plan to create a committee that will be charged with implementing new recruitment strategies.

7. Responses to Institution-Assigned Issues

7.1 What strategies has the department implemented that will support the Integrative Learning experience at EIU?

The Geology/Geography Department at Eastern prides itself in offering high impact experiences that are integrative in many areas. The G/G Department possesses integrative "DNA" in several ways including, but not limited to, a strong dedication to field experiences and "outside-of-the classroom learning" at all levels (including support of faculty-led and semester-long study abroad programs), a focus on undergraduate research and internship opportunities, and a truly multi-disciplinary focus. Since the last review, dozens of students have participated in internships and independent research activities. Many of these research endeavors have resulted in presentations at regional/national meetings and publications.

7.2 What one unique, noteworthy activity is the program involved in that will enable the IBHE to distinguish its program from other similar programs in the state?

One program of note in our department that truly represents the department's commitment to integrative learning and makes us unique is our broadcast meteorology program. This interdisciplinary program was the winner of the Provost's Award for integrative learning in 2012 and has become a model for future integrative learning initiatives in the department. High impact experiences are central to the program's mission. Students are required to collect and analyze scientific data, produce forecasts, communicate their findings with online broadcasts, and work as an on air meteorologist on the local NewsWatch program on WEIU-TV in Charleston. Many of the students also have worked on the production of documentaries about natural weather hazards. These practical experiences prepare students to be successful in the field of broadcast meteorology, both on camera and behind the scenes. The program has produced a number of alumni who work at television stations across the nation. In fact, 90% of students who have completed the program have become employed in the field.

8. Outcome

8.1. Decision

__X___ Program is in Good Standing

_____ Program flagged for Priority Review

_____ Program Enrollment Suspended

8.2 Explanation

Dean's Comments

The Geography faculty members have done a good job adjusting their curriculum to changes in the field. In particular, they are placing more emphasis on geospatial techniques, and the current program is focused and intentional. With anticipated job growth in this area, this should be a sustainable major. The challenge is to attract new students to EIU to enter into this program. I encourage program faculty to work with the admissions office to facilitate effective outreach.

Provost's Comments

Clearly, developing sufficient student interest is paramount at this moment in Eastern's history. This is not a major that new students typically arrive intending to pursue. Strategies must be examined to develop such interest after they arrive.