

Department of Geography Annual Report – 2005

I. Statement of Mission and Purposes

The Department of Geography seeks to deliver to its students the best geography education in Arkansas. The Department offers a Bachelor of Arts Degree, a Bachelor of Science Degree, a minor in Geography, a minor in Geographic Information Science, and a Graduate Certificate in Geographic Information Systems. The Department strives to maintain the highest academic quality and to assure that its curriculum remains current and responsive to the needs of the students it serves. The Department's mission is expressed in its commitment to the personal, social, and intellectual growth of its students; its support for its faculty members' advancement of knowledge; and its service to the community.

The Department of Geography implements its mission through its emphasis on the following central purposes:

- To deliver excellent curricula in degree programs at the undergraduate and graduate levels,
- To support its programs with personnel of the highest quality and with optimal resources and facilities,
- To create a departmental community that supports students in their personal, social, and intellectual growth,
- To enhance interaction and understanding among diverse groups and to cultivate global perspectives,
- To foster learning and the advancement of knowledge of its faculty through research and other scholarly and creative activities, and
- To serve the public in ways appropriate to the mission and resources of the Department.

II. Updated Academic Plans

Goal 1: Maintain and Enhance Undergraduate/Graduate Curricula

Action Plans:

1. Add one regional geography course.
2. Continue to infuse GIS technology into appropriate courses.
3. Place the Graduate Certificate Program online.
4. Begin the Executive GIS Master's Degree

Projected Completion Date:

1. Fall 2006
2. On-going
3. December 2006
4. Fall 2006

Measures of Success:

1. The course, Geography of Africa, will be submitted for approval.
- 2a. Geography faculty members will show the video, *GIS Today*, in appropriate courses.
- 2b. Geography faculty members will incorporate GIS exercises into appropriate courses.
3. Dr. Pearson will complete online courses.
4. Drs. Green and Pearson will enroll students and begin the online courses in that degree program.

Resources Required:

1. None.
2. \$250 for new videos/DVDs.
3. None.
- 4a. Continued reassigned time.
- 4b. Continued reassigned time for Dr. Pearson.
- 4c. An additional faculty member - \$50,000 plus fringe benefits, office space and equipment.
- 4d. \$5200 to pay for adjunct faculty to cover reassignments.

Goal 2: Increase the Number of Majors

Action Plans:

1. Devote time in appropriate courses to career options in geography.
2. Expose students in appropriate courses to geospatial technology by assigning GIS exercises as homework.
3. Host GIS Day in Technology Plaza.
4. Host an EAST Student Summer Technology Camp

Project Completion Date:

1. Each semester.
2. Each semester.
3. November of each year.
4. Summer of each year.

Measures of Success:

- 1a. Each faculty member will devote time to career options in geography in appropriate courses.
- 1b. Each faculty member will declare that they have held career discussions in appropriate courses.
- 2a. GIS exercises will be given as homework assignments in appropriate courses.
- 2b. Each faculty member will declare that GIS exercises were given as homework assignments in appropriate courses.
3. A successful GIS Day is held each November.
4. A successful EAST Summer Technology Camp will be held.

Resources Required:

1. None.
2. None.
3. \$100 for supplies and food.
4. Assistance and financial support to the Department of Management Information Systems (it is planning the camp).

Goal 3: Increase Research/Publication Productivity of Geography Faculty.

Action Plans:

1. Encourage an established research and writing agenda.
2. Review annual professional growth plans.
3. Require interim reports to monitor and track professional growth activities.
4. Review Performance Summaries to track professional growth activities.

Projected Completion Date:

1. On-going.
2. January, each year.
3. April and September, each year.
4. January, each year.

Measures of Success:

1. Encouragement will be given during annual conferences.
2. Professional growth plans will be reviewed each January.
3. Interim reports will be received each April and September.
4. Faculty Performance Summaries will be reviewed each January.

Resources Required:

1. \$1,000 annual travel budget for each faculty member.
2. Reassigned time for professional growth activities.
3. \$5,200 for adjunct professors to enable reassigned time.

Goal 4: Add Faculty Offices and GIS Center

Action Plans:

1. Remodel Irby 302 to contain two faculty offices and a GIS Center.

Projected Completion Date:

1. Summer 2006.

Measures of Success:

1. Remodeling completed.

Resources Required:

1. \$25,000

Goal 5: Increase Departmental Visibility on Campus

Action Plans:

1. Provide GIS Workshops.
2. Commemorate GIS Day.
3. Participate in Major Fairs, Career Fairs, and Bear Facts Days.

Projected Completion Date:

1. Each semester.
2. Each November.
3. Each semester.

Measures of Success:

1. Conduct at least one GIS workshop each semester.
2. Commemorate GIS Day each November.
3. Participate in Fairs and Bear Facts Days.

Resources Required:

1. \$50 for advertisements.
2. \$100 for brochures and food
3. \$500 for supplies and promotional items.

Goal 6: Improve Community Outreach

Action Plan:

1. Offer GIS workshops to community officials.
2. Train community officials in GIS technology.
3. Hold GIS Seminars for community officials.

Projected Completion Date:

1. Each spring semester.
2. As requested.
3. One per year.

Measures of Success:

1. Hold at least on workshop.
2. Train at least one official in GIS technology.
3. Hold at least one seminar per year.

Resources Requested:

1. \$2,000
2. \$2,000
3. \$5,000

II. Accomplishments

Curriculum

New courses approved

Geography 1300, Geography of World Regions
Geography 3335, Geography of Russia

Online courses approved

All courses in the Graduate GIS Certificate Program were approved to be converted from traditional to online courses.

Professional Development

Conferences Attended

Southwest Region of the Association of American Geographers – Allender, Butt, Green, Pearson, Reynolds
Arkansas Conference on Teaching - Green
ESRI International Users Conference – Passé-Smith
Southwest Social Science Association – Passé-Smith

Conference Presentations

“Blending Rock and Brick in the Ozarks: The Mixed Masonry Buildings of Silas Owens Sr., 1938-1956” – Allender

“The Russian Far East: Land of Plenty – People in Poverty” – Green

“The Russian Far East: Problems and Prospects” – Green

“Test-Driving a Tornado Likelihood Model” – Passé-Smith

"Restrictive Usage Policies on Water Supply Reservoirs and Watersheds: The Extremes of Source Water Protection in the United States" - Reynolds

Publications

Green - With Elena Biryukova, "Meshorskii National Park: Problems and Prospects." *Regional Geography and Geoecology*. (Ryazan': Ryazan' State Pedagogical University, 2005): pp. 32 - 38.

Review of Ethan R. Yorgason, *Transformation of the Mormon Culture Region in Utah Historical Quarterly* Vol. 73, No. 1 (Winter 2005): 98 – 100.

Passé-Smith - “Test-Driving a Tornado Likelihood Model” presented at the ESRI International Users Conference, July 25-29, 2005 (published on CD and electronically online at <http://gis.esri.com/library/userconf/proc05/papers/pap1185.pdf>, in their *Proceedings*).

Pearson - “Comparative Accuracy in Four Civil War Maps of the Shenandoah Valley: A GIS Analysis.” *Professional Geographer* Vol. 57, No. 3, (August 2005): 376 – 394.

“James W. Abert: Kentucky Scientist and Topographical Engineer.” *Journal of the Kentucky Academy of Sciences* Vol. 66, No. 1 (2005): 2 – 16.

Grants Funded

- Allender/Green - "The Geography of World Regions: A Textless, Technologically Sophisticated, General Education Course." U.S. Department of Education, through UCA - \$20,784
- Green - "The Russian Far East: An Advanced Seminar in Russian Culture." Fulbright-Hays Group Projects Abroad Program - \$62,000 - Green

Service

Department

- Allender - Chair, Curriculum Committee
Faculty Representative, Gamma Theta Upsilon
- Butt - Curriculum Committee
Faculty Search, chair
Acting Chair, July
- Passé-Smith - GIS Committee
- Pearson - Chair, GIS Committee
- Reynolds - Member, Curriculum Committee
Member, Search Committee
Coordinator, Internship Program

College

- Allender - Research Committee
- Butt - Tenure Committee
- Green - Chair – Curriculum Committee
- Passé-Smith - Director, Social Science Laboratory
- Reynolds - Promotion Committee

University

- Allender - Director and advisor, Environmental Science; Planning & Administration track
Coordinator and advisor, Latin American Studies minor
Received Public Service Award

- Green - Undergraduate Council
Academic Planning Committee
Project EAST Committee
- Pearson - Project EAST Committee
- Reynolds - Advisor, Environmental Alliance

Community

- Allender - Arkansas Department of Higher Education Statewide Transfer Committee
Backpacking/wilderness class through the Continuing Education Center.
Judge - Arkansas State Science Fair
- Green - Coordinator – Arkansas Geographic Alliance
Secretary/Treasurer – Arkansas Geographical Society
External Reviewer, Geography Program, Northeast State University in Tahlequah, Oklahoma
- Reynolds - Local Emergency Planning Committee
Arkansas Earthquake Advisory Council
Arkansas Pre-Disaster Mitigation Planning Committee
Category Judge, Arkansas High School State Science Fair

Internship Report

Thirteen students participated in the Geography Internship Program during the Spring '05, Summer '05, and Fall '05. The agencies at which these students applied their skills and gained valuable on-the-job experience included the following:

- CenterPoint Energy (LR) - 3 interns
- Arkansas Highway and Transportation Dept. (AHTD) (LR) - 2 interns
- Green Bay Packaging (Oppelo) - 2 interns
- Arkansas Public Policy Panel (LR) - 1 intern
- Audubon Arkansas (LR) - 1 intern
- Crafton, Tuell & Associates, Survey and Engr. (LR) - 1 intern
- Arkansas 4H Center (LR) - 1 intern
- Arkansas Game and Fish Commission (LR) - 1 intern
- United States Fish and Wildlife Service (Conway) - 1 intern

CenterPoint Energy, the natural gas utility, provided the most positions with interns engaged in mapping. The list of participating agencies continues to grow and change, as the positions at Arkansas Public Policy Panel, Audubon Arkansas, Arkansas 4H Center, and Crafton, Tuell & Assoc. were identified and obtained through student initiative. The skills enhancement and experience

ranged from GIS at AHTD and CenterPoint, environmental education at Audubon Arkansas and Arkansas 4H Center, and water quality testing at Green Bay Packaging, to name a few. The participating agencies continue to be impressed with the performance, knowledge, and abilities of the interns.

Narrative Summary of Assessment

Objectives Assessed

The department conducts two assessments each year: 1) an assessment of our General Education Elective, Principles of Geography, and 2) an assessment of the level of knowledge attained by our graduating senior geography majors. The objectives assessed in the Principles of Geography assessment can be viewed on the attached outcomes of the assessment. The goal of the senior geography major assessment is to determine if our graduating majors have attained a certain level of geographic knowledge, and their feelings toward the program and its benefits to them. The results of that assessment are also attached.

How Were They Assessed?

Each year during the fall semester a survey instrument is given to students enrolled in Principles of Geography courses. That survey assesses students' knowledge of three objectives in the Behavioral and Social Science category, five objectives in the Information and Computer Literacy Skills category, and six objectives in the Attitudes/Values category. The results are tabulated to determine if assessed objectives are being met. The Geography Major Assessment is given to each graduating senior during the last week of the semester.

What Was Learned?

Regarding the Principles of Geography assessment, we learned that of the fifteen objectives assessed, all fifteen were successfully achieved. The percent who responded Strongly Agree and Agree are noted below for each question.

After this course, I am better able to:

90% use a variety of concepts, principles, models, laws, and theories used to explain human behavior.

87% understand how the study of human behavior is founded on empirical/scientific observation.

- 92% recognize the effect of the environment on individual behavior, or recognize the effect of social institutions and processes on human interaction.
- 85% locate information from a variety of resources.
- 86% utilize technology to create written and graphic documents, and to retrieve and communicate information effectively and efficiently.
- 84% critically evaluate information and its sources.
- 93% incorporate information gained outside of textbooks into my knowledge base.
- 81% utilize technology skills to more effectively write, conduct research, and produce graphic representations.
- 87% understand ethical, legal, and social issues surrounding the use of information sources.
- 93% perceive and understand ongoing world events.
- 97% perceive and understand other peoples and cultures.
- 94% perceive and understand the forces and processes of nature.
- 91% perceive ongoing physical and cultural processes at the local, national, and global scales.
- 94% perceive and understand environmental concerns and problems.
- 97% understand the relationships between humans and their natural environment.

Graduating Geography Majors' Assessment

The Graduating Geography Major Assessment Exam was administered to five students scheduled for graduation during the year. The purpose of the exam is to assess the skills and acquired knowledge of graduating geography majors. This exit exam measures the simple cognitive processes of recall and knowledge as well as the higher level skills of comprehension, application, analysis, synthesis, and evaluation. The results of the Assessment Exam as it relates to the four departmental Intended Outcomes/Objectives are discussed below.

Intended Outcomes/Objectives 1:

Students completing the baccalaureate degree in geography will have competence in the understanding of geographic concepts, organization of physical and cultural attributes of place, increased environmental understanding of interconnections in a dynamic global environment, and will have demonstrated the ability to use various maps, geographic representations, and other geographic tools in data acquisition, analysis, and presentation.

Assessment Procedures and Criteria:

Ninety percent or greater of graduating geography majors will pass the Exit Assessment Exam on geography competence.

Results: Of the five graduating majors completing the Graduating Geography Major Assessment Exit Exam, all students (100%) passed with a score of 60% or greater.

Conclusions: Although the number of graduating geography majors taking the exam was small, it appears as though the graduating geography majors have achieved the necessary geographical competence.

Intended Outcomes/Objectives 2:

Students completing the baccalaureate degree in Geography will express satisfaction with the program curriculum and general instruction in the discipline.

Assessment Procedures and Criteria A: (Item 26 on Exit Assessment Exam)

Ninety percent or greater of graduating geography majors will state they agree with the statement in the Exit Assessment Exam "I believe the geography program curriculum prepared me to understand the spatial relationships that exist between the physical and human environments of the world."

Results: All (100%) of the students agreed with the statement, however, one respondent indicated that more theoretical background in geography should be offered in the upper division courses.

Conclusions: Apparently, graduating geography majors feel that they are prepared to understand the geographical relationships of the physical and human environments.

Assessment Procedures and Criteria B: (Item 27 on Exit Assessment Exam)

Ninety percent or greater of the graduating geography majors will state they agree with the statement in the Exit Assessment Exam "I believe the

geography program curriculum prepared me for geography-related employment.”

Results: All (100%) of the graduating geography majors agreed with the statement.

Conclusions: It appears as though the geography program is effective in preparing students for careers in geography-related fields.

Intended Outcomes/Objectives 3.

Students seeking employment upon completing the baccalaureate degree in geography will be well prepared for the evolving employment market and will be able to find employment related to their acquired skills and abilities, or be able to quickly acquire the particular skills required for that employment.

Assessment Procedures and Criteria.

No formal assessment survey has been conducted since the Alumni Survey of 2000; however, the Geography Department maintains some contact with graduates informally and through the annual departmental newsletter. This informal contact provides valuable information on where our graduates are employed. The criteria states that 50% or greater of those seeking employment will find employment in geography related areas.

Results/Conclusions: It should be noted that a vast majority of the Geography Program graduates are finding employment in geography-related areas in both the public and private sectors. The demand for majors and graduates skilled in GIS and related technology continues to be high. Examples of agencies and/or companies where numerous UCA geography majors and graduates are employed include Center Point Energy, Arkansas Highway and Transportation Department(AHTD), InterAct Emergency Systems, Pulaski County, North Little Rock Community Planning, Conway City Planning, Southwestern Energy, and MetroPlan, to name a few in the central Arkansas area. The Geography Internship Program continues to be highly successful in placing students in geography-related positions prior to graduation to enhance skills development and marketability. This program also strengthens employment connections upon graduation, as numerous interns have been employed in full-time positions at the agencies participating in the internship program, especially at agencies such as AHTD.

From both formal and informal discussions with employers participating in the Internship Program and employers of graduates of the Geography Program, the following conclusions have been derived:

- UCA geography graduates are highly competitive for geography-related positions in the workplace.
- UCA geography graduates possess the skills and training necessary to secure geography-related career positions.
- UCA geography graduates are generally in demand, particularly in technologically related areas of the discipline.

Intended Outcomes/Objective 4.

Students desiring to continue their education beyond the baccalaureate level and meeting the admission criteria of graduate institutions and programs will be adequately prepared to perform effectively and successfully in these advance degree programs.

Assessment Procedures and Criteria:

Ninety percent or greater of the geography graduates desiring graduate-level study in geography or a geography-related discipline and meeting the admission criteria will be admitted into these programs. This information is obtained from the Exit Exam Assessment Item 28 and follow-up surveys.

Results: One graduating geography major has applied for advanced study into a graduate program, and has been accepted by numerous programs.

Conclusions: Based on evidence primarily from previous years, the Geography Program graduates are usually admitted to the graduate programs of their choice, and are academically equipped with a fundamentally sound undergraduate experience that leads to successful advanced program completion.

Geography majors at UCA continue to be introduced to the program through the introductory courses, particularly Principles of Geography. Based on the student responses on the Exit Exam, general strengths of the program are the highly knowledgeable and personable geography faculty, the diversity of courses, and the internship opportunities. Weaknesses center primarily on the desire for more extensive GIS and technology related courses, and, as one student indicated, more theoretical background in the upper division courses.

Actions to be Taken

Regarding the Principles of Geography assessment, the initial action was to ensure that each member of the department knew that we had succeeded in all categories this year. As we prepare for the next academic year, we will continue to do what we have been doing so that success will continue in the future.

Regarding the Graduating Major assessment, each faculty member will be made aware of the results of the assessment. We will identify areas where improvements can be made and discuss a strategy that can be implemented to ensure that our goals are met.

III. Status of Current Goals

Category: Maintain and Enhance Undergraduate/Graduate Curricula

1. Add an additional General Education course
Completed: added Geography 1300, Geography of World Regions
2. Add two additional regional courses.
Not completed: added Geography 3335, Geography of Russia
3. Infuse geographic information system (GIS) technology into appropriate courses.
Completed
4. Hire a new GIS faculty member.
Completed
5. Place the Graduate GIS Certificate Program on-line.
Partially completed.

Category: Increase the Number of Majors

6. Devote time in appropriate classes to career options in geography.
Completed
7. Expose students in appropriate courses to geospatial technology by assigning GIS modules as homework.
Completed

8. Host GIS Day in Technology Plaza.

Completed

9. Host GIS Day in Technology Plaza.

Not completed. Beginning in 2007, the Departments of Geography and Management Information Systems will host a three-day event for top junior ESRI students. Funding will come from Acxiom Corporation and the President's Office.

Category: Increase Research/Publication Productivity of Geography Faculty

10. Encourage faculty members to have an established research and writing agenda.

Completed, but on-going

11. Carefully review annual professional growth plans.

Completed

12. Require interim reports on the work being done to accomplish professional growth plans.

Completed

13. Carefully review Faculty Performance Summary regarding professional growth plans.

Completed

14. Make professional growth and improvement an annual emphasis until improvement is observed.

On-going

Category: Add Faculty Offices and GIS Center

15. Remodel Irby 302 to contain two faculty offices and a GIS Center.

Not completed

Category: Increase Departmental Visibility on Campus

16. Provide GIS Workshops.

Not completed, but lectures to a variety of classes were given

17. Commemorate GIS Day.

Completed

18. Participate in Majors Fairs, Career Fairs, and Bear Facts Days.

Completed

Category: Improve Community Outreach

19. Offer GIS workshops.

Not completed

20. Train officials in GIS technology.

Not completed

21. Hold GIS Seminars for community officials.

Not completed

IV. Goals for 2006

Curriculum

- Advertise for a new faculty member to teach Economic, Urban, Political Geography and to assist with graduate GIS programs
- Place all courses in the Graduate GIS Certificate Program on-line
- Implement the Executive GIS Master's Degree
- Create an Africa and the Middle East course
- Convert 311 into a "smart" classroom

Scholarship

- Submit 4 items for publication
- Present 6 papers at geography conferences

- Submit 3 grant proposals

V. Long-Range Goals

Curriculum

- § Examine the possibility of creating a multidisciplinary GIS degree

Research/Scholarship

- § Geography faculty members submit manuscripts for publication once every two years
- § Complete existing projects (book, funded research, etc.)

Service

- § Increase the number of geography majors to 70
- § Provide GIS training for community officials
- § Generate GIS-contract work for local communities
- § Assist MIS (Department of Management Information Systems) with planning of EAST Conference in 2007

Technology

- § Purchase GPS receivers
- § Purchase large format scanner

VI. Trends – Challenges/Opportunities

We have had a sound geography program for many years. That trend continues. When students leave our program, assuming effort on their part, they leave very well prepared to enter the workforce or continue their education at the graduate level. Students in our program receive excellent instruction in our topical, regional, and technical courses.

That does not mean; however, that there are not areas within the program where improvements can and need to be made. The two most important are:

First, the number of geography majors continues to be rather low. That needs to change. Second, the geography faculty members have generally been stagnant in their professional growth, but improvement is being made in this area, and 2006 should be better.

The challenge, therefore, is two-fold. First, we must do more to attract additional geography majors. That will be accomplished when we: 1) improve the quality of instruction in Geography 1305, Principles of

Geography, 2) implement the new general education course, Geography 1300, Geography of World Regions, 3) are more proactive in recruiting students from Environment and Spatial Technology (EAST) programs, and 4) when we become more visible on campus.

Second, the geography faculty must become more actively engaged in professional growth, particularly in research and publication. We have made significant steps to improve these areas, and changes are being made toward eradicating professional stagnation.