

Department of Geography

Annual Report – 2003

I. Statement of Mission and Purposes

The Department of Geography seeks to deliver the best undergraduate 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. Accomplishments

Curriculum

The Department was involved in a variety of curricular activities during the year. Several of the more important ones are noted below.

§ Two new GIS courses were submitted for approval (GIS in Practice: Environmental Applications and GIS in Practice: Business and Social Science Applications).

§ Three faculty members attended a two-day ArcGIS I workshop in Monticello, Arkansas.

- § A GIS Initiative was implemented that included goals in curriculum, faculty development, and service. (*See attached document*)
- § GIS presentations were given to students in Management Information Systems
- § Faculty members have incorporated the video, *GIS Today*, into their courses.
- § One faculty member has completed an ESRI on-line GIS course.
- § One faculty member attended a three-week curriculum development workshop at the Hawaii East/West Center.
- § One faculty member was selected to participate in the UCA-Netherlands Program, taught two courses in Maastricht and led students on excursions to Paris, France and Rotterdam, Netherlands.
- § One faculty member has written a manuscript textbook for a course.
- § One faculty member had his students create an Electronic Atlas of Conway as part of the course requirements.

Professional Development

Several activities occurred during the year, which demonstrate that geography faculty members are involved in professional development. A selection of some of the more important activities is noted below.

- § Six papers were presented at state, regional, or international conferences.
- § Three grant proposals were funded (University Research Council, Instructional Development Committee, Fulbright-Hays).
- § Five additional grant proposals were authored or co-authored and submitted by members of the department (National Science Foundation, U.S. Civilian Research and Development Foundation, Robert Ward Johnson Foundation, U.S. Department of Education, Kellogg Foundation).
- § One article was published in *GIS Educator*.
- § One book chapter was accepted for publication.
- § A manuscript was reviewed for the editors of *Historical Geography*.
- § A presentation was accepted for delivery at the 2004 ESRI Conference.

Service

The faculty members of the department are involved in a variety of campus and community service activities. Representative of that activity are the items noted below.

- § One faculty member served as Chair of the City Planning Commission.
- § One faculty member served as a Co-Coordinator of the Arkansas Geographic Alliance.
- § One faculty member advised the Environmental Alliance.
- § One faculty member conducted workshops for and presented to the Instructional Development Committee and the New Faculty Orientation.
- § One faculty member organized and led a group of Arkansas teachers through Siberia.
- § One faculty member was the geography consultant for the Fulbright-Hays Siberian Seminar.
- § One faculty member conducted a workshop on Islam for Arkansas teachers.
- § One faculty member conducted workshops or gave presentations at five Arkansas Geographic Alliance workshops.
- § Two faculty members completed a GIS project for the Arkansas Department of Economic Development.

Internship Report

Six students participated in the Geography Internship Program during the Spring '03, Summer '03, and Fall '03. The agencies at which these students applied their skills gained in the classroom included Conway City Planning (2), Arkansas Highway and Transportation Department (AHTD)(3), and Metroplan(1). The AHTD continues to serve as the predominant source of internship positions for our geography majors, with positions in the Mapping Section and the Environmental Section, both requiring skills in cartography and GIS. The position at Metroplan, a regional planning agency, is dependent on the agency's need plus the student's interest. The participating agencies continue to be most impressed with the performance, knowledge, and abilities of the interns, with the AHTD hiring one of the interns into a permanent position and other interns working beyond (with pay) their minimum required hours. Intern positions

evolving into full-time professional positions at participating agencies have occurred frequently in previous years.

Narrative Summary of Assessment

Objectives Assessed

We conduct 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 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, thirteen were successfully achieved. However, two were not. Our focus is on improving technological skills of students, and it was in that area where the two objectives were not met. We learned that we must pay more attention to those two objectives that were not met. Regarding the Graduating Major assessment, we learned that the vast majority of our graduating students have been well taught and have strong, positive feelings about the program.

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 failed to meet two critical technology objectives. As we prepare for the next academic year, reminders of the need to meet those two technology objectives will be presented to the faculty. Discussions will also be held in department meetings where ideas will be discussed regarding how we can meet those objectives in the future. At the end of the fall 2004 semester, we will evaluate the success of our actions. 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

When the Department of Geography was separated from Political Science, no goals had been established for two years. The goals found below were established in 2001. A statement regarding success or failure in accomplishing those goals follows each goal.

Stabilize the Geographic Information Systems programs

§ Add an additional faculty member who could be Chair

When Mary Sue was hired we essentially added an additional faculty member, but not one that could be chair. Because the new chair was an internal selection, a seventh position was not added.

§ Increase enrollment

We do have an increased enrollment in GIS and GIS-related courses. With Mary Sue teaching GIS and Amadou teaching GIA, remote sensing, and one certificate course, we had 29 students enrolled in GIS or GIS-related courses in the fall 2003 semester. During the Spring 2003 semester, we had 21 students enrolled in those courses. As it stands, the increase from the Spring 2003 to the Fall 2003 semester was about 38 percent. If the lab in Irby 213 is upgraded, we will eventually be able to teach 15 students in the GIS and GIS-related courses. That will enable us to further increase enrollment in the GIS component of our program.

§ Require at least one Geographic Information Systems course for geography majors

This goal was reached when we began to require Introduction to GIS as a requirement for geography majors.

§ Promote and expand the Graduate Certificate in Geographic Information Systems

Promotion of the Certificate Program occurred when we advertised the courses to members of the Arkansas GIS Users Forum listserv. We have also determined the teaching schedule of Certificate courses for the next two academic years. That schedule, or at least those courses scheduled through the Fall 2004 semester, is also posted on the Department Web site on the Certificate Program page.

Five students were enrolled in the Certificate course the fall semester. Four students are within two courses of meeting the requirements for the Certificate.

Amadou, Mary Sue and Brooks have also met and discussed various aspects of the Certificate Program. We hope that adjustments and changes will strengthen and expand this Program.

The certificate program will be expanded to include an undergraduate component and the entire program will be offered on-line through distance education. Activities related to these changes are moving forward and will be ready by late 2004 or early 2005.

§ Obtain additional hardware and software for the Geographic Information Systems Lab

All of our technology courses will move to the lab in 213. That will solve our hardware issues. Our software needs have essentially been met with the ESRI annual license. We do need to replace our GPS hardware and upgrade the GPS software.

Increase the Number of Geography Majors

§ Create more general education courses in geography

Jeff is in the process of writing a new “world regional” course. When implemented, this goal will be completed.

§ Develop more and better recruitment methods to attract geography majors

Our best recruitment site is at UCA in our Principles of Geography courses. We need to be more proactive in this area and devote time in class to the major, its benefits, and related careers. This topic fits very nicely with Chapter One in our Principles of Geography textbooks. We are also showing the GIS video.

With a concerted effort, we can increase the number of majors from our current 35 to somewhere closer to 70.

Review and Evaluate the Geography Curriculum

§ Survey other geography programs

There is no need for this goal. The courses we have in our program are excellent, and with the addition of the two new GIS courses, it will even be better. With the renewed interest in regional geography, we should seriously consider adding courses on Africa/Middle East, Asia and Europe/Russia.

§ Conduct a market analysis (employment opportunities for our geography program graduates)

We did not see the need to conduct such an analysis. But, we should build a database of all former students and where they work. A substantial portion of that is completed, but it should be updated and maintained.

§ Review the viability of the field studies courses

This goal was completed some time ago when we decided to drop the Field Studies requirement for our majors. We have, however, kept the course, GEOG 3320 “on the

books” to enable students to receive credit for work while studying or conducting research at locations in the United States and in foreign countries.

§ Examine the curriculum to see how well it fits into “global studies”

We have done this, but we should not totally dismiss the possibility of adding courses on Africa/Middle East, Asia and Europe/Russia. Geography courses of these regions would strengthen the existing regional studies programs (Africa and African/American Studies and Asian Studies) and they would probably bring more students into our program.

§ Review geography consultants’ reports and make appropriate changes

This goal has essentially been completed, but we continue to monitor and evaluate our GIS program to ensure that it is where it should be.

Become a Separate Department

§ Stabilize the Geographic Information Systems programs

This goal was dealt with above.

§ Increase professional participation

See thoughts about this in the next section.

§ Hire an additional faculty member/chair

This topic was dealt with above.

Increase Professional Participation

§ Expand research productivity

We: 1) deliver an excellent geography program with competent professors, and 2) serve the university and community in sufficient and varied ways. We do, however, fall short in areas of the category of professional development. Professional papers are being presented in sufficient numbers, but published results are not materializing.

To improve the quality of our program, we need to improve research and publishing. Most of us have been “anchored” at our respective ranks far too long. We need to do something about that as well.

We need to consider ways to bolster our professional growth so that we can apply for advanced ranks. It won’t be achieved without publications. Some faculty members have never applied for sabbatical leave and should do so.

We have decided to measure our professional responsibilities as follows: 50 percent teaching, 35 percent research/scholarship, 10 percent service, and 5 percent collegiality. We are essentially ignoring the 35 percent research/scholarship component. As we evaluate our time usage, we should attempt to spend about 1/3 of it in this category. That means that during an 8-hour day, somewhere around 2 ½ hours should be devoted to

research/scholarship. Or, during a 40-hour week, somewhere around 12 hours should be devoted to research/scholarship

Most of us are not obligated to 40-hour work weeks, but whatever we put in, approximately 35 percent should be devoted to research/scholarship (researching, writing manuscripts, planning research projects, preparing manuscripts, attending scholarly conferences, writing grant proposals, editing papers and manuscripts, reading related to research, traveling related to research and presentation, revising manuscripts, conducting field research, etc.)

§ Increase the number and amount of grants and contracts

We have generally been moderately successful in this area. Jeff and Brooks have written grants and have received funding for a variety of activities. Amadou (with Jeff and Mary Sue as participants) has written NSF proposals. We need more activity in writing grants for research purposes. This is an area where we can all improve.

We should consider doing outside consultant/contract work. It would be a valuable component of our program. In the past we have discussed the idea of creating a “GIS Center.” We like that idea and think we should pursue it. But, we need to clearly think about how it will be funded, staffed, and who will do the work. Perhaps a faculty member could have a one-course reassignment to direct the “Center,” seek contracts and consulting opportunities, and supervise students who would work in the “Center.”

§ Develop additional and alternative travel funds

If this is connected to research grants, then it makes sense. Otherwise, this appears to be more of a college goal than one for our department.

§ Create greater flexibility in using travel funds

If this means that we should be able to attend conferences without presenting and use departmental funds, then it is a goal that we should pursue. Currently, if one wants to travel to a conference and not present, it is possible if one spends at least ½ of ones own money. The department can contribute ½ of the funds to conferences where one does not present or otherwise participate. We need to try to change this so that professional growth can occur without always presenting papers.

IV. Goals for 2004

Since July 1, 2003, when the department became separated from Political Science, we have developed the following goals for 2004.

Curriculum

- § Complete the undergraduate certificate program
- § Submit proposed undergraduate certificate program to appropriate committees
- § Post the entire certificate program on-line
- § Craft and submit a “World Regional” general education course
- § Craft regional courses for Africa/Middle East, Asia and Europe/Russia

- § Incorporate GIS modules into appropriate courses
- § Utilize Irby 307's "smart" facilities
- § Plan a GIS Day in November

Research/Scholarship

- § Submit 4 manuscripts for publication
- § Submit 4 grant proposals

Service

- § Increase the number of geography majors to 45
- § Train 5 additional UCA faculty in the use of GIS
- § Provide GIS training for officials in Mayflower, Wooster, Lonoke, and Holland, Arkansas

Technology

- § Obtain 2 new GPS receivers and associated software
- § Obtain a new color printer
- § Pursue the Fall 2003 GIS Initiative

V. Long-Range Goals

Curriculum

- § Create a GIS course with applications designed for the College of Health and Applied Sciences
- § Add three regional courses – Africa/Middle East, Asia, Europe/Russia
- § Integrate technology more completely into course instruction
- § Make Irby 311 a "smart" classroom
- § Employ 2 additional workstudy students in Social Science Lab
- § Add 1 additional faculty member
- § Plan an annual Geography Day each November patterned after the National History Day
- § Geography faculty members continue to become more proficient in GIS

Research/Scholarship

- § Geography faculty members submit manuscripts for publication once every two years
- § Geography Department submit a grant proposal that will involve all departmental faculty
- § Complete existing projects (book, funded research, etc.)

Service

- § Increase the number of geography majors to 70
- § Train additional UCA faculty in the use of GIS
- § Provide GIS training for community officials
- § Generate GIS-contract work for local communities

Technology and Other

- § Upgrade computers in Social Science Lab
- § Upgrade printers in Social Science Lab
- § Develop a GIS Center
- § Secure annual funding for the ESRI license
- § Remodel Irby 302 to become 2 faculty offices and a GIS Center

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 too low. That needs to change. Second, the geography faculty members have generally been stagnant in their professional growth. That also needs to change.

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) be more proactive in recruiting students from Environment and Spatial Technology (EAST) programs, and 3) when we bring high school students to campus to participate in an annual Geography Day.

Second, the geography faculty must become more engaged in professional growth, particularly in research and publication. We have made two small, but significant, steps to improve these areas. First, each faculty member is now required to submit a manuscript for publication once every two years. Second, an April and September report is now required to monitor annual professional growth progress and to hold faculty members more accountable for their annual plans for professional growth. These two reports will help keep professional growth plans toward the forefront of faculty activities and force faculty members to report progress toward achieving their goals.

We now have a much better opportunity, with a geographer as chair, to meet these and other challenges. Our location in the center of Arkansas and the fact that we are the only single-entity Department of Geography in Arkansas, places us in an advantageous position to become much better than we are.