

Proposal for ACS Information Fluency Grant

Title: Integrating GIS into the Liberal Arts Curriculum: A Cross-Campus Seminar

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Abstract

We propose to offer a seminar at Rhodes College to explore way to integrate GIS, Geographic Information Systems, into the liberal arts curriculum. The seminar will foster collaboration between faculty, students, librarians, and information technologists to increase the use of spatial analysis across the campus. We will share the results with the consortium and the larger community by use of the ACS web page.

Rationale

Rhodes College is currently undergoing its most significant planning initiative over the past half century. This planning effort includes considerations for increasing student research opportunities, rethinking the liberal arts curriculum, and maintaining a campus supported by innovative technology. Some of this planning is based on the implicit assumption that important synergies on a liberal arts campus are often left unfulfilled by traditional curricular and pedagogical approaches. To this end, we are proposing a seminar for both faculty and staff to explore together the means of integrating a powerful analytical tool into the curriculum and the operation of Rhodes College. Specifically, Geographic Information Systems (GIS) has become increasingly used in a variety of academic disciplines as well as public, private, and non-profit sectors. In an academic setting, use of GIS can be instrumental in increasing students' research and computer skills and providing them with yet another vehicle to enhance their critical thinking abilities. Its use in the operations of a college/university can help define problems and streamline solutions. In other words, GIS can be seen as a mechanism that can generate important synergies from a variety of sources at a liberal arts college.

Our interdisciplinary GIS team of ten faculty has focused on introducing GIS to the Rhodes community over the past three years. This introduction has evolved in a variety of ways: developing two interdisciplinary team-taught courses ("Scientific Investigation Using GIS", and "Research Seminar in GIS Applications"), offering a GIS Open House attended by over 75 members of the campus community, and sponsoring a GIS Lecture Series. We would now like to turn our attention to the integration and broader utilization of this technology at the College. To continue this integration, we propose to offer a seminar in collaboration with the College Information Services Office (which includes staff members from the Library, Computer Center, and Institutional Research), the Office of Admissions and additional faculty. We feel that such a seminar is an important step in this process.

The seminar has two objectives: 1) to increase familiarity of the technology through hands-on projects (with an eye toward specific applications), and 2) to develop synergies that should be useful for institutionalizing GIS as an analytical device with a variety of campus wide uses.

Specifically, we feel that GIS provides unique opportunities to 1.) develop innovative collaborative projects, 2.) expand curricular approaches and offerings, and 3.) ensure that information fluency resonates throughout the liberal arts environment. To take full advantage of possible synergies, we propose to use this grant opportunity as a step toward institutionalizing GIS at Rhodes. Ultimately, we envision the establishment of permanent GIS technical support at Rhodes. We now have a very small staff in both IT and the Library compared to other ACS schools. Demand for technical assistance will increase as more faculty incorporate GIS into both their courses and their student/faculty research projects. We need to plan ways to support this increased demand.

Preliminary Description

We propose to offer a seminar for 15 faculty and staff for the fall of 2002. The seminar will consist of three parts: an initial half day workshop, a series of one-on-one sessions throughout the month, and a final half day session.. Three faculty from our interdisciplinary GIS team will lead the seminar. Work study students will provide additional technical assistance for the workshop, and thorough out the year to support seminar outcomes. We will invite several groups to take part: Information Services (which includes the Library, Computer Center, and Institutional Research), the Admissions Office and the Faculty .

In the workshop we will explore together ways spatial analysis can be used across campus. Then in small break-out groups (one faculty, a student assistant, and five participants) we will do “hands-on” projects appropriate to the group’s interests. The projects may include finding, creating and displaying data, and analyzing feature relationships. We will be using the latest version of the GIS software, ArcGIS 8.1. The participants will then develop an idea for an individual project. During the month, participants will work individually (or in pairs) with the faculty partner and student assistant. At least three, one-hour sessions are anticipated for work on this project. The faculty partner will monitor and support the project through lunch meetings or phone conversations.

In the final session participants will give a 10-20 minute presentation of their project. This will be followed by a discussion of ways we can collaborate on using spatial analysis on campus. We hope that ideas for several concrete collaboration projects will develop during this discussion. For example, a college office could provide data that a student could use for a class research project. This collaboration would benefit both partners. A second, and perhaps more important, topic of discussion will focus on how we can continue to administer, monitor, and support GIS within the College's evolving curricular, faculty, and administrative structure.

Strategies for Recruiting Participants and Target Audience

- A small stipend will be offered to each participant.
- A general invitation to apply for the seminar will be sent to the faculty/staff.

Individual invitations will be hand delivered to individuals who attended the GIS Open House and expressed interest. Phone conversations with the heads of offices and departments will be made to encourage them to ask the appropriate members of their group to apply.

- Professor Delphia Harris and her two students from LeMoyne Owen College who attended the GIS Open House will be encouraged to apply. The presence of LeMoyne Owen participants would extend opportunities for collaborative research projects between the schools and is encouraged by the Rhodes Campus-Community Initiative, and the ACS Campus/Community Alliance.

Preliminary Agenda

Saturday 9/18/02 morning

- 8-9 :00 Introduction and initial discussion of ways to integrate spatial analysis into the curriculum and the operation of the college. A short pretest to assess experience with spatial analysis will be given.
- 9-9:15 Break
- 9:15-11:15 3 Break-out sessions (1 faculty, 1 student assistant, and 5 participants)
- 11:15-12:00 Discussion and selection of individual projects.

2/16-3/15 Three individual sessions with faulty partner and/or student assistant to work on individual project. Additional encouraging phone calls and lunch meetings throughout the month.

Saturday 10/19/02 morning

- 8:00-10:00 Presentation of projects
- 10-10:15 Break
- 10:15-11:30 Develop plans for new cross-campus collaboration projects (outcomes), plus collaboration to support GIS within the college structure. The Academic Dean will be invited to his session.
- 11:30-12:00 Wrap up, post test, and administration of assessment instrument. .

Plans for Evaluation and Follow-up

A pre and post test will be administered for the seminar, as well as a final assessment questionnaire. A follow-up lunch/meeting will be held in January to discuss problems and successes participants are having with the outcome projects, or new ideas for additional projects. We will also discuss applying for a new grant to continue the integration of spatial analysis into the curriculum of the college. Additionally, we want the group to reflect on the positive and negative aspects of the seminar at this time distance point.

Plans for Dissemination of Results to the Rest of ACS and Beyond

We will send a detailed report on the planning, execution, and outcomes of the seminar, in addition to the instructions for the hands-on topic sessions, to the ACS IF committee for their website. We will also include a detailed report on the planning and execution of our GIS Open House. Since the Open House was a main stepping-stone to the development of this proposal, other ACS schools may wish to follow the same route. We hope that these reports would permit replication of our project at other schools.

We also plan to email other ACS IT or GIS representatives to encourage them to read our report, and, if they are interested in the seminar, to collaborate with us on an ACS grant proposal to support our travel to their school to present a similar seminar that addresses the needs of their campus.