

Spatial Analysis Lab

Spring / Summer 2004 Report



SAL Initiatives

NITLE Grant

In collaboration with Amherst College and Williams Colleges, the SAL submitted a grant proposal to the Center for Educational Technology (CET) in Middlebury, Vermont to build upon a previous grant award titled *“Getting Natural Science Faculty, Staff, and Students Started with Basic Uses of Geographic Information Systems (GIS)”*. The new proposal, **“Building a Foundation for Instruction in Geographic Systems (GIS)”** was favorably reviewed and tentatively accepted for funding. However, the project team was asked to re-work the proposal to change from a regional focus to a national focus so that it could be funded by the National Institute for Technology in Liberal Education (NITLE). Additional team members from Grinnell College and Washington & Lee were brought in to help develop curricular resources for Liberal Arts Colleges engaging GIS technology. A beta version of the on-line resources is scheduled to be released during the summer 2005.

Campus Kiosk

The Spatial Analysis Lab is working with the Office of Admissions to install a Campus Kiosk computer system in the Admissions Office. The kiosk will offer an intuitive and easy to use interface for users to access campus data from a map centric perspective. The Spatial Analysis Lab is working with a local developer to customize an application that is built upon our already existing software investment. The kiosk should be operational by the end of September and be available for public use during the fall semester.

SAL Usage

Classes

Classes using the lab this past were Geomorphology (GEO 251) and the Environmental Science and Policy seminar (EVS 300).

Interterm

Three (3) faculty and eight (8) students participated in a 4 day GIS and GPS Interterm Course (January 20-23, 2004)

Individuals

Thesis / Special Studies Support

- Amy Toulson, Biology

Amy continues her research on Joshua Tree distribution and reproduction in the desert southwest.

Research Support

- Jennifer Seavey, Biology *doctoral research

Jennifer is conducting a temporal and spatial scale analysis of environmental determinates of abundance and productivity in Piping Plover on Long Island, New York. The SAL is supporting Jennifer with GPS equipment and training, as well as base data collection and organization.

Other Support

- GPS support to the Botanical Garden plant and tree inventory mapping.
- Poster printing and support for students and faculty.
- GPS and GIS Support for Larry Meinert's Keck course in the Finger Lakes Region of New York State.
- GPS and GIS Support for Amy Rhodes' and Drew Guswa's research in Costa Rica.

Student Assistants

- **Margaret Pitkin**

Lab Monitors

- **Cassie Stearns**
- **Jessica McCartney**

The primary responsibility of the Lab Monitors is to open the Lab during evening and weekend hours and to assist students with GIS related assignments. In addition to their primary responsibilities, the monitors help the GIS Specialist with various tasks. Some of the tasks completed this spring are listed below.

- Spatial History of Smith Campus
- Town of Northampton Land Value Data Compilation

Equipment

- Moved the coordinates of the Spatial Analysis Lab 20 feet to the west from Bass 105 to Bass 103. The move accommodates larger classes utilizing the SAL (e.g. Bob Burger's Natural Disasters Class (Geo 105) with 3 sections of 20 students each.

- Installed 12 new workstations in the new Spatial Analysis Lab (August / September 2004).
- Smith Curricular Initiatives in Educational Technology (CET) award for \$750 to purchase 4 gigabit switches to increase network connectivity and distribution.

Software & Data

New software and data acquired and installed during the spring and summer includes:

- ArcGIS 9.0
- MapView SVG
- Xtools Pro 2.0 (lab license)
- Erdas Imagine 8.7 (15 seat license)

Programmatic Development

- Submitted SAL budget for 2004-2005
- Submitted and Received Authorization for an On Campus Intern
- Participated and supported 3 faculty (Bob Newton, Amy Rhodes, and Drew Guswa) during an Advanced GIS training class (titled “[Teaching and Learning with GIS](#)”) in Middlebury, Vermont (June 28-July 2, 2004).
- Worked with Bob Burger to develop 10 GIS based laboratory exercises for Natural Disasters: Understanding and Coping (GEO105).
- Working with John Connolly to explore and develop a 5-College GIS program to attract both students and professionals to the 5-College area during summer months and interterm session.