

Project Year

2001

Project Team

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Project Title

GIS and *Introduction to Computation and Mathematical Modeling*

Audience

Approximately eighty-eight students enrolled in the *Introduction to Computation and Mathematical Modeling* course each year.

Pedagogical Issue

Much of the work in geography and the natural sciences is concerned with spatial information. A geographic information system, or GIS, is a software tool to store and display spatial data and to model the environmental processes that depend on it. Learning how to use GIS software is not trivial. An online introduction to GIS is highly useful in providing instructions that can be customized to meet each learner's needs.

Solution

This project team proposes to build a teaching module to introduce GIS to new users through a web-based tutorial and a sample application of ArcView GIS software. The tutorial will introduce users to the general concepts of GIS, to the GIS software, and to a particular application that provides realistic context. The application also will also introduce important problems in model definition, calibration, and verification that would otherwise be difficult to cover without this specialized software.

Technologies Used

Web Design, Programming – MatLab, ArcView (GIS)