Biology 370X, Spring 2015

GIS for Ecology and Environmental Science

Course Overview: ENSCIIBIOL 370x is a self-paced course designed to accommodate the individual geographic information systems (GIS) training needs of Environmental Science and Biology majors. The course is comprised of completing online GIS modules and, if applicable, individually-designed project-based GIS work.

Online coursework: Online module work consists of completing a set of individually-selected Environmental Systems Research Institute (ESRI)-created online modules chosen in conference between the course facilitator and the student based upon the student's individual GIS training needs. The number of modules to be taken by the student is proportional to the number of credit hours enrolled. In general 1 credit hour equates to approximately 30 direct hours of online module work. The content of the available modules ranges from basic introductory usage of ESRI software to advanced concepts in GIS science.

Modules are checked out from ESRI in blocks of 4. No more than 4 courses can be held by a student at a given time. At the completion of each module the student will receive an electronic certificate of completion from ESRI. PDF versions of these certificates must be emailed to the course facilitator in blocks of 4 prior to request of the subsequent block of modules. All selected ESRI online modules must be completed by the end of finals week to receive course credit. Approximately one-half of selected courses must be completed by semester mid-term to avoid receiving a mid-term grade report.

Online modules are to be conducted through the ESRI website (www.esri.com) through a web browser on a local computer. Required practical (software exercises) work is to be conducted on the Orbis (orbis.eeob.iastate.edu) application and file server through a remote desktop application, in on-campus GIS labs, or (if you have a Windows computer) on your local machine with a student version of ArcGIS installed. If you are interested in the final option let the course facilitator know as early as possible so that appropriate arrangements can be made.

Individual student projects: Completing a GIS project is not a requirement of ENSCIIBIOL 370x. If a GIS project is to be completed in lieu of some or all online modules the project must first be approved of by the course facilitator. Proposed projects must be accompanied by a 1 to 2 page project plan which details: 1) The goals of the project; 2) A preliminary work plan; and 3) An approximate timeline of completion. Each completed project must be accompanied by a 5 page project report detailing: 1) The purpose of the project; 2) A detailed summary of GIS work completed; and 3) Conclusions regarding the completed work (if appropriate).

Special Needs: Please address any special needs or special accommodations with me at the beginning of the semester or as soon as you become aware. Those seeking accommodations based on disabilities should obtain a Student Academic Accommodation Request (SAAR) from the Disability Resources (DR) office (515-294-6624). DR is located in Room 1076 of the Student Services Building.