

SEP. 10 2002

GRANDE PRAIRIE REGIONAL COLLEGE
DEPARTMENT OF SCIENCE AND TECHNOLOGY
Bachelor of Applied Forest Resources Management

GIS for Forestry: FO3000 (Fall 2002)

Pre-requisites: Introduction to Computing-CS1010

Calender description: Introduction to computer technologies used in forest resource management, including GIS (Geographic Information System), GPS (Global Positioning System) and GPS-GIS linkage. Principles, concepts, spatial functions, and applications particularly in forest landscape management and design will be emphasized.

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Lectures:	Monday	12:30 – 14:20	Room: J101
Laboratory:	Wednesday	13:00 – 13:50	Room: J101
	Friday	13:00 – 13:50	Room: J131

Course objectives: Upon completion of the course, the student should be:

1. Familiar with basic GIS concepts
2. Conversant with ArcView 3.x
3. Familiar with forestry uses of ArcView

This course is offered through a combination of in class tutorials/instruction, a course offered through ESRI Virtual campus, and an end of term project designed to integrate data captured via GPS and digitization with data made available from a local firm.

In Class Instruction:

There are three components to in class instruction.

1. Basic concepts of GIS
2. GPS/Digitization
3. Integration of GPS/Digitization into ArcView 3.x

ESRI Virtual Campus:

There is one course being offered through FO3000.

1. Introduction to Arcview 3.x
 - a. Basics of ArcView
 - b. Querying data in ArcView
 - c. Working with tables in ArcView
 - d. Analyzing spatial relationships using ArcView
 - e. Presenting information in ArcView
 - f. Creating your own data in ArcView

This course consists of 6 modules (see above). Each module should take between 2 and 6 hours to complete, including quizzes and exams. The actual amount of time depends on the background which is brought to the course.

Project:

You will be provided some data for a real geographic area. Your task will be to collect the GPS data from the field, digitize additional information using the digitizing table, and add this information to the information already available. Further detail will be provided after the mid-term.

Useful references:

Breslin, Pat, Frunzi, Nick, Napoleon, Eileen, and Ormsby, Tim (1999). Getting to know ArcView GIS. ESRI Press, Redlands, California.
Clarke, Keith (1999). Getting started with geographic information systems. Prentice Hall, Upper Saddle River, New Jersey. 338 pp.

Course schedule

WEEK 1: *Introduction to Course*

- a. Lectures
- b. Virtual campus (ArcView 3.x)
- c. Project
- d. Expectations

WEEK 2: *Introduction to GIS*

WEEK 3: *Introduction to GIS*

WEEK 4: *Introduction to GIS*

WEEK 5: *ArcView*

WEEK 6: *ArcView*

WEEK 7: *ArcView*

WEEK 8: *ArcView*

WEEK 9: *Review, Mid-Term, Project*

WEEK 10: *Capture Methods*

WEEK 11: *CANFOR GIS*

WEEK 12: *Ainsworth GIS*

WEEK 13: *WEYERHAEUSER GIS*

WEEK 14: *Project Presentation*

Evaluation: Evaluation for this course is based on these four items.

Assignments (5-6)	25%
Project	25%
Mid-term examination (1)	25%
Final exam (1)	25%

Assignments are to be handed in on time. Late assignments will be accepted; but will be subjected to an automatic deduction of 10% per day that the assignment is late. Completion of all assignments and the mid-term is necessary in order to pass the course.