

College of Micronesia-FSM
P.O.Box 159
Kolonia, Pohnpei FM 96941

Course Outline Cover Page

Geographic Information Systems
Course Title

IS 270
Department and Number

Course Description:

The purpose of this course is to provide an introduction to Geographic Information Systems (GIS) and its applications in several disciplines such as planning, mapping and utilities management. The course uses ESRI's ArcView GIS, desktop GIS software.

Course Prepared by: Business Division

State Pohnpei-national campus

	Hours per Week		No. of Week	=	Total Hours	=	Semester Credits
Lecture	<u>3</u>	x	<u>16</u>	=	<u>48/16</u>	=	<u>3</u>
Laboratory	_____	x	_____	=	_____	=	_____
Workshop	_____	x	_____	=	_____	=	_____
Total Semester Credits						=	<u>3</u>

Purpose of Course: Degree Requirement _____
Degree Elective _____
Certificate _____
Remedial _____

Other (workshop) _____

Prerequisite Course(s): IS 201

Date Approved by Committee: 9/9/99

Date Approved by President: 9/10/99

College of Micronesia – FSM
IS 270
Geographic Information Systems
Course Outline

A. General Objectives

The purpose of this course is to provide an introduction to Geographic Information Systems (GIS) and its applications in several disciplines such as planning, mapping, and land and utilities management. The course uses ESRI's Arc View GIS, desktop GIS software.

B. Specific Objectives

By the end of the course, the student will be able to:

1. Describe what GIS is; what it does; how it works; and how to make information presentable.
2. Demonstrate an understanding of how to use ArcView GIS for entering data and classifying , displaying & symbolizing themes
3. Demonstrate how to work with spatial data.
4. Query data by selecting map features in a view
5. Enhance GIS features by managing tabular data.
6. Analyze spatial relationships
7. Present information using charts.
8. Create their own data, shapefiles and editing shapes in a theme.
9. Use internet and other GIS resources and applications.
10. Use Arc View's programming Language called Avenue for customizing ArcView.

C. Textbook:

Getting to Know Arc View GIS, Environmental Systems Research Institute, Inc, California, USA, 1998.

D. Methods of Instruction:

Lecture and demonstration will be combined with daily assignments and larger projects.

E. Course Content:

- I. Desktop GIS: Introduction.
- II. How it works
- III. Asking Questions and getting answers
- IV. Making Information presentable
- V. Knowing about geographic and spatial data
- VI. ArcView GIS introduction
- VII. Getting data into ArcView GIS
- VIII. Classifying and displaying themes
- IX. Symbolizing themes
- X. Measuring distance and area in a view & managing scale
- XI. Querying by selecting map features in a view & records in a table
- XII. Managing tabular data by displaying, editing, joining, linking tables
- XIII. Analyzing spatial relationship by finding features and spatially joining tables.
- XIV. Presenting information by creating map layouts and adding charts and tables.
- XV. Creating data by creating shapes and editing in a theme, creating themes.
- XVI. Introduction to Arc View’s programming language Avenue to customize the interface.

E. Evaluation:

Grades will be assigned based on the following percentage of total points received from assignments, quizzes, and the mid-term and final exam.

- A.....90% to 100%
- B.....80% to 90%
- C.....70% to 80%
- D.....60% to 70%
- F.....59% and below

F. Attendance Policy:

The standard COM-FSM Attendance Policy will apply to this course.