

WILLIAM RAINEY HARPER COLLEGE
BUSINESS AND SOCIAL SCIENCE DIVISION
GENERAL COURSE OUTLINE

GEG	153	Applications for GIS	(3 - 3)	3
Course Prefix	Course Number	Course Title	Lec-Lab	Semester Hours

COURSE DESCRIPTION

Consolidates the concepts and techniques acquired through prior coursework within the Geographic Information Systems (GIS) certificate. Students will analyze case studies, understand GIS as a professional field, and apply GIS methods and workflows in classroom projects.

Prerequisite: GEG 152 with a grade of "C" or better.

TOPICAL OUTLINE

- I. Considerations for GIS Professionals
 - A. code of ethics
 - B. legal and security issues
 - C. industry associations
- II. GIS Project Workflows
 - A. Project conceptualization, planning, and workflow documentation
 - B. Data sourcing or creation
 - C. Application of GIS analytical methods and cartographic principles
 - D. Presentation of results (digital, written, and verbal)

METHODS OF PRESENTATION

- 1. Lecture
- 2. Computer-based learning
- 3. Hands-on exercises

STUDENT OUTCOMES: *(The student should...)*

- 1. solve geospatial problems or to answer geographic questions through the application of GIS analytical methods and cartographic principles.
- 2. document GIS workflows, procedures, and metadata.
- 3. understand the professional and ethical behaviors expected of GIS professionals.
- 4. demonstrate communication skills that are required for teamwork and presentations in GIS project settings

METHODS OF EVALUATION

Grades are based on demonstrated proficiency in subject matter. Proficiency is determined from:

- 1. Completion of laboratory exercises
- 2. Passing exams
- 3. Completion of various homework assignments
- 4. Final project

TEXTBOOK & INSTRUCTIONAL MATERIALS

Keranen and Kolvoord, Making Spatial Decisions Using GIS: A Workbook, 2nd ed., ESRI Press, 2011

Prepared by: Mukila Maitha
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