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

GEG	153	Applied Geospatial Technologies	(2-2)	3
Course	Course	Course Title	(Lec-Lab)	Semester
Prefix	Number			Hours

#### **Course Description**

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

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

# **Topical Outline**

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

## **Method of Presentation**

- 1. Lecture
- 2. Other: a. Computer-based learning b. Hands-on exercises

## **Student Outcomes (The student should)**

- 1. solve geospatial problems or to answer geographic questions through the application of geospatial technology methods and cartographic principles.
- 2. document geospatial technology 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**

Required

ESRI, SpatiaLABs Laboratory Collection, <u>https://www.esri.com/training/catalog/search/</u> GeoTech Teaching Resources, <u>http://www.geotechcenter.org</u>

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