GIS 2843  GIS Practicum

Common Course Outline

Course Information

Description: This variable credit course expands upon the knowledge students gained in previous geospatial technology courses and serves to hone their GIS skills. Students will have the opportunity to design, develop, and implement a GIS-based solution in response to a defined problem and present their results. (Prerequisite: GIS 2841 Intermediate GIS or Consent of the instructor)

Career Cluster: Engineering, Manufacturing & Technology

Types of Instruction

Instruction Type: Lab

Credits/Hours: 2-4 / 64-128

Pre/Corequisites

Prerequisite: GIS 2841 or Consent of the instructor

Course Competencies

1 Practice safety throughout the project

Learning Objectives
- Develop safe data collection practices.
- Identify potential field hazards.
- Identify safety equipment needed during data collection.
- Review industry safety standards.

2 Enhance problem solving skills

Learning Objectives
- Make observations effectively.
- Gather information.
- Make educated decisions.
- Offer solutions to problems.

3 Utilize technology

Learning Objectives
- Apply technical aptitude to project activities.
- Utilize computer technology as it is related to achieving goals.
- Effectively manage information on computers.
- Solve problems using technology.
- Follow ethical technology practices.
4 Acquire advance proficiency of understanding project development

Learning Objectives
Research project development requirements.
Identify required project documents.
Describe efficient project scheduling.
Adhere to scheduling timelines.

5 Properly utilize and manage equipment

Learning Objectives
Ensure equipment is properly working.
Ensure equipment is properly maintained.
Effectively use equipment to complete assigned work.
Ensure proper use of equipment.

6 Define GIS data integrity

Learning Objectives
Adhere to accuracy guidelines.
Document changes to data.
Provide acknowledgement to data owned by others.
Review industry data practice guidelines.

7 Identify data requirements

Learning Objectives
Research project requirements.
Determine project requirements.
Identify data needs.

8 Develop a working knowledge of ArcGIS software

Learning Objectives
Identify the components of ArcGIS.
Configure ArcGIS components.
Maintain ArcGIS components.

9 Demonstrate proficiency loading and configuring GIS software and hardware

Learning Objectives
Determine software requirements for software loads.
Identify issues with various operating systems.
Research online sources for loading issues.
Configure computers for optimum performance.

10 Demonstrate proficiency troubleshooting GIS software and hardware

Learning Objectives
Become aware of various issues within a GIS.
Locate reliable sources for acquiring information.
Develop a log of issues resolved.
Publish solutions to common issues.

11 Follow industry data storage standards

Learning Objectives
Develop a database storage system.
Assign and manage user rights.
Develop metadata for all data sets.
Document data collection and manipulation information.

12 Describe delivery of end products

Learning Objectives
Determine project deliverables.
Develop efficient work flow diagrams.
Communicate delivery schedule conflicts.
Perform to the highest quality of work standards.

13 Develop ability to present research findings through poster presentation

Learning Objectives
Identify the components of a well-designed poster.
Utilize computer software to design graphs and tables to summarize research findings.
Develop a poster to assist in oral presentation of research findings.
Perform an oral poster presentation.

SCC Accessibility Statement

If you have a disability and need accommodations to participate in the course activities, please contact your instructor as soon as possible. This information will be made available in an alternative format, such as Braille, large print, or cassette tape, upon request. If you wish to contact the college ADA Coordinator, call that office at 507-389-7222.

Disabilities page http://southcentral.edu/academic-policies/disability-rights.html