SOUTHEAST COMMUNITY COLLEGE
ADVANCED TECHNOLOGY AND SKILLED TRADES DIVISION
Geographic Information Systems Technician Program
Revision Date: November 2025

I. CATALOG DESCRIPTION

Course Number:	GIST2210
Course Title:	GIS Capstone
Prerequisite(s):	GIST1110, GIST1120 and GIST1130, Min grade C
Catalog Description:	This course employs design principles to create and edit effective visual representations of data in different formats (e.g. hardcopy, digital, web) to complete projects that integrate the knowledge and skills learned in the GIS courses. In the capstone project students will create a project proposal, research design and carry it through to implementation, results, and analysis.
Credit Hours:	3
Class Hours:	45
Lab Hours:	0
Total Contact Hours:	45

II. COURSE OBJECTIVES: *Course will:*

- **A.** Introduce students to techniques for defining a problem or scenario.
- **B.** Refine abilities to identify, collect, organize, and examine the data needed to address a problem.
- **C.** Develop skills in identifying the deliverables needed to support a decision.
- **D.** Address appropriate methods for documenting and presenting data in various formats.
- **E.** Develop the ability to prepare data and perform geospatial analysis.
- **F.** Discuss the steps and procedures needed to produce the deliverables, draw conclusions, and present the data results.

III. STUDENT LEARNING OUTCOMES AND GENERAL EDUCATION LEARNING OUTCOMES:

- **A.** Student Learning Outcomes: *Student will be able to:*
  - **1.** Organize and execute capstone project in a systematic and timely manner.
  - **2.** Outline the aspects of a need for the product and develop a practical project plan for addressing those needs.
  - **3.** Design, compile and develop spatial datasets with applicable data from various sources and of various data types.
  - **4.** Incorporate appropriate analytical and spatial analysis tools to produce a desired outcome.
  - **5.** Assess, select, and apply technologies that will contribute to project objectives.
  - **6.** Demonstrate competency of geographic analysis and cartographic skills.
  - **7.** Communicate the GIS project process and the results in written and graphic media at a professional level.
  - **8.** Demonstrate professional skills of effective communication and project management.
  - **9.** Design professional quality maps employing cartographic principles.
  - **10.** Produce maps and related products in a variety of formats (hardcopy, digital and web).
  - **11.** Critique maps for appropriate use of cartographic design principles.
- **B.** General Education Learning Outcomes (GELOs)

1. GELO #3: Critical Thinking & Problem Solving
Outcome 1: Collect, identify, interpret and analyze data.

IV. CONTENT/TOPICAL OUTLINE *(course outline may provide more detailed information)*

A. Web maps and web applications
B. Story maps
C. Capstone Project:
1. Research ideas
2. Proposal
3. Data preparation
4. Implementation
5. Analysis
6. Results
7. Delivery

V. INSTRUCTIONAL MATERIALS

A. Required Text(s): None
B. Other Sources: Internet and computer access (No tablets or phones)

VI. METHODS OF PRESENTATION/INSTRUCTION

A. Methods of presentation typically include a combination of the following:
1. Module overviews
2. Video presentations
3. Readings and Resources

VII. METHODS OF EVALUATION

A. Methods of evaluation, although determined by the individual instructor, traditionally includes a combination of the following:
1. Assignments
2. Discussions
3. Projects