

PELLISSIPPI STATE TECHNICAL COMMUNITY COLLEGE
MASTER SYLLABUS

**DESKTOP GIS SOFTWARE TOOLS
GIS 1120**

Class Hours: 3.0

Credit Hours: 3.0

Laboratory Hours: 0.0

Date Revised: Fall 00

NOTE: This course is not designed for transfer credit.

Catalog Course Description:

Instruction in the use of commercial GIS Viewers and associated tools used in various courses and GIS projects. The specific product offered will vary depending on student needs and the commercial success of the software. The course will provide training on the use of products that are currently commercially-viable. May be repeated for credit up to nine hours, with consent of GIS coordinator.

Entry Level Standards:

Students should have knowledge and experience working in the Windows operating system environment, including the use of the Microsoft Office software components. Students should also have the ability to use a standard keyboard and maintain a rate of 10 words per minute. Students should also have mathematics, writing, and verbal skills at the college level.

Prerequisites:

None

Corequisite:

GIS 1010 or consent of GIS coordinator

Textbook(s) and Other Course Materials:

TBA

I. Week/Unit/Topic Basis:

TBA

II. Course Objectives*:

- A. Learn how to effectively and efficiently use the target software tools. I, II, IV
- B. Learn how to select the most appropriate software tools to complete a GIS project. I, II, IV

*Roman numerals after course objectives reference goals of the GIS program.

III. Instructional Processes*:

Students will:

- 1. Use spatial elements, measurements, locations and references to develop graphic and numerical awareness of the real world. Understand how information in the form of maps

and numbers connect to the physical world. *Numerical Literacy Outcome, Transitional Strategy*

2. Be familiar with the basic procedures and the overall quality of GIS databases. *Numerical Literacy Outcome, Problem Solving and Decision Making Outcome*
3. Participate in open discussions regarding the strengths and weaknesses of GIS procedures and what improvements might be made in future releases. *Active Learning Strategies, Communication Outcome, Transitional Strategy*
4. Use the Internet and electronic mail to communicate effectively between the instructor, other students, and for information gathering. *Technological Literacy Outcome, Information Literacy Outcome*
5. Internalize the work ethic by demonstrating regular attendance, punctuality, dependability, cooperation with teachers and peers, and professionalism. *Personal Development Outcome*

*Strategies and outcomes listed after instructional processes reference Pellissippi State's goals for strengthening general education knowledge and skills, connecting coursework to experiences beyond the classroom, and encouraging students to take active and responsible roles in the educational process.

IV. Expectations for Student Performance*:

Upon successful completion of this course, the student should be able to:

1. Demonstrate effective and efficient use of several GIS software tools. A, B
2. Demonstrate registration of a raster image in a GIS software package. A, B
3. Create new GIS attribute table. A, B
4. Perform table and spatial queries. A, B
5. Perform complex queries involving joins. A, B
6. Create thematic maps. A, B
7. Edit vector layers. A, B
8. Add nodes to a graphic entity. A, B
9. Understand the use of Meta data and be able to document it. A, B
10. Customize the user interface. A, B
11. Convert data from a different GIS format. A, B
12. Rectify a raster image. A, B
13. Create a complex layout and print on large format printer. A, B
14. Create charts and graphs from GIS attribute data. A, B
15. Create vector data by digitizing from a background map or raster image. A, B

*Letters after performance expectations reference the course objectives listed above.

V. Evaluation:

A. Testing Procedures: 65% of grade

Four tests will be administered (three tests plus the final) counting for approximately 65% of the final grade.

B. Laboratory Expectations: 35% of grade

Students will be assigned group and/or individual projects. The ability to work with others, the ability to make efficient use of equipment, and the level at which students perform will contribute to the grade.

C. Field Work:

N/A

D. Other Evaluation Methods:

N/A

VI. Policies:

A. Attendance Policy:

Pellissippi State Technical Community College expects students to attend all scheduled instructional activities. As a minimum, students in all courses must be present for at least 75 percent of their scheduled class and laboratory meetings in order to receive credit for the course.

B. Academic Dishonesty:

Plagiarism, cheating and other forms of academic dishonesty are prohibited. A student guilty of academic misconduct, either directly or indirectly through participation or assistance, is immediately responsible to the instructor of the class. In addition to other possible disciplinary sanctions that may be imposed through the regular Pellissippi State procedures as a result of academic misconduct, the instructor has the authority to assign an F for the exercise or examination or to assign an F in the course.

C. Use of Equipment:

Any act of misuse, vandalism, malicious or unwarranted damage or destruction, defacing, disfiguring, or unauthorized use of property/equipment belonging to Pellissippi State is subject to disciplinary sanction.