Intermediate GIS fulfills a core requirement for SRJC's Geospatial Technology Certificate and Civil & Surveying Technology Certificates

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This is an intermediate level course in the concepts of geographic information systems (GIS). Topics include elements of GIS, data structures and their management, intermediate input and output functions and mapping possibilities. Hands-on exposure to GIS technology through the use of computers and current industry standard software is provided during the laboratory.

**Prerequisite:** Course Completion of GIS 50 OR Course Completion of APTECH 54A (or APTECH 54)

## Course Requirements

The basic requirement for this course is that you arrive on time to each class meeting and are prepared to stay for the entire session. You are responsible for all material discussed in lecture and lab. Write down questions you have about the material while reading and studying and bring them up for clarification in class.

Access to a computer and the Internet is an important component of this class. You will have approximately 3 hours of class time each week to complete your labs. If you run out of time in the lab, please feel free to use the lab during open lab hours at the Petaluma Computing Labs.

Note: If you decide to drop the class, please follow the procedures outlined in the current Schedule of Classes. If you miss more than one class in a row (i.e., an unexcused absence) and do not officially drop the course at the Admissions and Records office, you will likely earn an "F" letter grade.

Please consult the Schedule of Classes to identify important deadlines on the College Calendar, such as adding or dropping classes and applying for the Credit/No Credit option.

## Student Learning Outcomes

The student will be able to:

1. Create, edit and analyze geographic data
2. Prepare reports, charts and layouts
3. Describe and implement the steps necessary to answer a geographic question
4. Produce an output of finished quality maps representing a basic analysis, a basic survey or a basic scale-based, descriptive, diagrammatic summary.

## Objectives

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

1. Demonstrate and understanding of the structure and organization of the software package
2. Create a project using GIS software
3. Define and apply the relationship of geographic features and attribute data
4. Perform feature identification and classification
5. Perform query and analysis functions
6. Define and edit spatial relationships
7. Create a map layout
8. Integrate GIS with other software and technology
9. Utilize basic cartographic principles in map design and construction.
10. Repeating students will gain enhanced skills and proficiencies through learning and applying methodologies and tools from updated and upgraded versions of the software.

## Textbook

Required:
GIS Fundamentals , 4th Edition, Paul Boldstad, Atlas Books, 2012. ISBN 978-0-9717647-3-6.
GIS Tutorial 2: Spatial Analysis Workbook , Second Edition, David W. Allen, Esri Press, 2010. ISBN 978-1-5894825-8-6.

## Lab Hours

Petaluma Campus Computer Lab Schedule (778-3905 or 778-3954)

If you need to work on a GIS assignment outside of class time and do not have access to a computer at work or home, you can access the ArcGIS program in PET 641 (Campus Open Lab). The hours of availability are Monday through Thursday 9:00 am - 7:50 pm and Friday 9:00 am - 1:00 p.m.

You will not have access to the network, so you must use a USB flash drive if you want to transfer data.

## Assignments and Examinations

Assignments are announced in class and posted on this web site. Check back frequently for updates.

Your grade is based on the total number of points you accumulate with respect to the total number of points possible.

Available Points:

- Individual Assignments worth 5-15 points each
- 2 worksheets worth 25 points each
- An individual project worth 100 points
- Midterm test is equal to 100 points

- Final exam is worth 150 points

## Grade Policy

Your grade is based on the total number of points you accumulate with respect to the total number of points possible and final grades are based on the following percentages:

| Percentage | Grade |
|---|---|
| 90 - 100% | A |
| 80 - 89% | B |
| 70 - 79% | C |
| 60 - 69% | D |
| < 59% | F |

## Contact Information

Kevin Lacefield
klacefield@santarosa.edu