

DRFT-119-SURVEYING 4 CREDITS

SYLLABUS

CATALOG DESCRIPTION

Elementary plane surveying to include concepts, field work, and computation.

Prerequisites: MATH-096 or appropriate Math Accuplacer score

Semester Offered: Fall

Common Student Learning Outcomes

Upon successful completion of San Juan College programs and degrees, the student will demonstrate competency in...

BROAD AND SPECIALIZED LEARNING

Students will actively and independently acquire, apply, and adapt skills and knowledge with an awareness of global contexts.

CRITICAL THINKING

Students will think analytically and creatively to explore ideas, make connections, draw conclusions and solve problems.

CULTURAL AND CIVIC ENGAGEMENT

Students will act purposefully, reflectively, and ethically in diverse and complex environments.

EFFECTIVE COMMUNICATION

Students will exchange ideas and information with clarity in multiple contexts.

INFORMATION LITERACY

Students will be able to recognize when information is needed and have the ability to locate, evaluate, and use it effectively.

INTEGRATING TECHNOLOGIES

Students will demonstrate fluency in the application and use of technologies in multiple contexts.

Student work from this class may be randomly selected and used anonymously for assessment of course, program, and/or institutional learning outcomes. For more information, please refer to the Dean of the appropriate School.

Course Learning Outcomes

Upon successful completion of the course, the student will be able to...

1. Understand fundamental surveying concepts including type of surveys, measurements, construction applications, and errors, stationing, field note taking, and calculations.
2. Learn correct use of surveying instruments including rods, tapes and chains, levels, transits, and

electronic measuring equipment.

3. To perform basic calculations from field notes including, but not limited to, slopes, closures, errors, stations, traverses, and horizontal and vertical curves.
4. To conduct field surveys using standard survey equipment and note taking procedures.

Specific Learning Outcomes

Upon successful completion of the course, the student will be able to...

1. Use modern surveying equipment to complete field data collection. (B,C,E,I,CC)
2. Perform calculations for slopes, closures and errors, bearings, azimuths, coordinates, latitudes and departures, horizontal and vertical curves, and distances. (B,C,E,I,CC)
3. Use the principles of field note taking and field book recordation. (B,C,E,I,CC)
4. Perform topographic, traverse, metes and bounds, property and subdivision surveys. (B,C,E,I,CC)
5. Apply the principles of the U.S. Land System and aliquot parts for surveying. (B,C,E,I,CC)