

Course Code: SRV 235

Course Title: Control Surveying

Department: Applied Sciences and Technologies

Effective Date: Summer 2026

PCS Code: 1.2 - Occupational/Technical Instruction

CIP Code: 15.0201

Repeatability: 0

Credit Hours

Catalog Notation: 2-3-3

Credit Hour Distribution:

Lecture: 2

Lab: 3

Clinical: 0

Total: 3

General Course Information

Catalog Description

Survey field processes and theories of control surveying, geodesy, state plane coordinate systems, and related computations.

General Course Objectives

- Students will demonstrate understanding of basic control surveying concepts, theories, and methods.
- Students will perform basic control surveying field practices and computational processes.

Minimum Placement Levels

English	Reading	Math
None	None	Placement out of MAT 072 or credit in MAT 131 with a grade of C or higher

Prerequisites

Credit or concurrent enrollment in SRV 113

Methods of Evaluation

Students will be given a minimum of 1 objective exam, 7 homework assignments, and 3 lab exercises.

Instructional Materials and Additional Supplies

Surveying with Construction Applications, 978-0132766982

Spiral-bound field book

Scientific calculator, Casio fx-115MS or equivalent

Mechanical pencil, 0.5 mm lead recommended

Course Content

General Learning Outcomes (GLOs)

- Reasoning and Inquiry: Students will demonstrate the ability to solve problems using deductive reasoning and logic, quantitative reasoning, or the scientific method.

Course Segments and Student Learning Outcomes

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Global Navigation Satellite Systems	1. Describe system components, error sources, positioning methods, and differential correction processes. 2. Evaluate positional quality. 3. Manipulate electronic data for map integration.	5	0	0
National Datums	1. Explain the history, development, and proper use of national survey datums. 2. Retrieve and interpret published control station information for various control points.	3	6	0
Control Surveying	1. Plan, perform, analyze, and adjust basic control surveys. 2. Explain the unique processes associated with a variety of control surveys.	6	30	0
Geodesy	1. Explain the foundational concepts of geodetic measurements and earth surface modeling.	6	0	0
State Plane Coordinate Systems	1. Calculate positions, directions, and distances using appropriate state plane coordinate system data.	10	9	0

Total Contact Hours

Lecture Hours	Lab Hours	Clinical Hours
30	45	0