# Course Information Form (CIF)

**Course Code:** SRV 211

**Course Title:** Construction Surveying

**Department:** Applied Sciences and Technologies
**PCS Code:** 1.2 - Occupational/Technical Instruction
**CIP Code:** 15.1102
**Repeatability:** 0

**Effective Date:** Summer 2026

## Credit Hours

**Catalog Notation:** 2-3-3
**Credit Hour Distribution:**

| Lecture: 2 | Lab: 3 | Clinical: 0 | **Total: 3** |
|---|---|---|---|

## General Course Information

### Catalog Description

Construction layout methods for commercial site improvements and commercial buildings.

### General Course Objectives

Students will apply common surveying processes to establish layout reference lines and elevations in the field for construction operations.

### 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 in SRV 113
Credit or concurrent enrollment in CIT 130

### 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
Author: Kavanagh & Slattery
Edition: 8th edition
ISBN: 978-0132766982

- Spiral-bound field book
- Scientific calculator (Casio fx-115MS or equivalent)
- Pencil
- Straightedge

## 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.
- Technology: Students will demonstrate the ability to evaluate, select, and appropriately use current and emerging tools.

### Course Segments and Student Learning Outcomes

| Course Segment | Learning Outcomes | Lecture Hours | Lab Hours | Clinical Hours |
|---|---|---|---|---|
| Control Surveys for Construction | 1. Collect control position coordinates using optical and survey-grade GPS methods.<br>2. Perform coordinate transformations for construction project control networks.<br>3. Discuss common project datums and their appropriate use. | 14 | 21 | 0 |
| Site Work Layout Methods | 1. Set alignment and grade stakes for pavement features, earth excavation, embankment, and underground utilities.<br>2. Record appropriate field notes. | 6 | 9 | 0 |
| Structural Layout Methods | 1. Lay out controlling structural lines and establish controlling elevations for commercial buildings.<br>2. Set layout stakes adapted to local conditions and structural methods. | 8 | 12 | 0 |
| Construction Plan Interpretation | 1. Extract details from construction plans to facilitate site construction. | 2 | 3 | 0 |

### Total Contact Hours

| Lecture Hours | Lab Hours | Clinical Hours |
|---|---|---|
| 30 | 45 | 0 |