

# LAND SURVEYING (SURV), CERTIFICATE

## Overview

For students with a bachelor's degree in a related field, Dunwoody's Surveying certificate may provide an avenue to licensure as a Land Surveyor. The certificate offers 22 technical credits in land surveying, as currently required by the MN board of licensure (AELSLAGID). Technical courses include lectures and laboratories in areas such as GPS and geodetic surveying, 2D and 3D drafting, boundary control, and land use planning.

Credits earned in the Land Surveying certificate directly transfer into Dunwoody's Surveying & Civil Engineering Technology (SCVL) (<https://catalog.dunwoody.edu/catalog-student-handbook/academic-programs/construction-sciences-building-technology/surveying-civil-engineering-technology-scvl-aas/>) associate's degree program.

**Credential Earned:** Certificate

**Length of Program:** 1 year (2 semesters)

**Classes Offered:** Day; Evening

**Available Starts:** Fall Semester; Spring Semester

## Program Outcomes

- Initiate and apply design of entry level complexity.
- Analyze drawings, specifications, and surveys, and apply industry standards.
- Interpret and review engineering and survey work.
- Analyze surveying and civil engineering principles, practices, and techniques.
- Utilize field and office procedures to complete tasks.
- Operate industry software and equipment.

## Degree Requirements

Code	Title	Credits
<b>General Requirements</b>		
Math Elective		3
<b>Technical Requirements</b>		
SCVL1002	Civil Drafting	3
SCVL1111	Introduction to Topographic Surveying	3
SCVL1130	Legal Descriptions & Boundary Law	4
<b>Technical Elective (Choose one course):</b>		
SCVL1210	Control & Geodetic Surveying	4
or SCVL2210	Laser Scanning & Remote Sensing	
<b>Technical Elective (Choose any course):</b>		
SCVL1220	Transportation & Municipal Design	4
or SCVL2120	Utility & Construction Design	
or SCVL2260	Site & Subdivision Design	
<b>Technical Elective (Choose one course):</b>		
SCVL2250	GIS	4
or SCVL2300	Adv Surveying & Construction Staking	
<b>Total Credits</b>		<b>25</b>

## Courses Descriptions

### SCVL1002 | Civil Drafting | Lecture/Laboratory (3 Credits)

Introduction to the fundamental aspects and production of drawings through the use of industry software with an emphasis on geometry and problems common to civil disciplines.

### SCVL1111 | Introduction to Topographic Surveying | Lecture/Laboratory (3 Credits)

Introduction to the technical equipment and industry processes used by surveying technicians to collect and interpret data.

### SCVL1130 | Legal Descriptions & Boundary Law | Lecture (4 Credits)

Introduction to property descriptions and land survey systems with a focus on composing and interpreting legal descriptions used in surveys.

### SCVL1220 | Transportation & Municipal Design | Lecture/Laboratory (4 Credits)

Utilize the principles of civil design with industry software to create elements of transportation and municipal design.

**Prerequisite(s):** CSBT1002 Or SCVL1002

### SCVL2120 | Utility & Construction Design | Lecture/Laboratory (4 Credits)

Utilize the principles of civil design with industry software to create elements of utility infrastructure and its' construction.

**Prerequisite(s):** CSBT1002 Or SCVL1002

### SCVL2260 | Site & Subdivision Design | Lecture/Laboratory (4 Credits)

Utilize the principles of civil design with industry software to create elements of site design, including the design of subdivisions and study of the subdivision process.

**Prerequisite(s):** CSBT1002 Or SCVL1002

### SCVL1210 | Control & Geodetic Surveying | Lecture/Laboratory (4 Credits)

Examine the fundamentals of Control Surveys, including Global Positioning Systems, focus and its' application to the geospatial industries, as well as an in-depth study of datums and projections.

**Prerequisite(s):** SCVL1111

### SCVL2210 | Laser Scanning & Remote Sensing | Lecture/Laboratory (4 Credits)

Analyze Laser Scanning and Remote Sensing technology, including the integration of the data to surveying and civil engineering projects.

**Prerequisite(s):** SCVL1111

### SCVL2250 | GIS | Lecture (4 Credits)

Examine the current state of the Geospatial Industry, including Geographic Information Systems(GIS) and Geospatial products.

**Prerequisite(s):** SCVL1111

### SCVL2300 | Adv Surveying & Construction Staking | Lecture/Laboratory (4 Credits)

Examine the fundamentals of advanced surveying methods in the field and office. Focus on field and office techniques for construction, data collection, and survey final products such as land title surveys, boundary and topographic surveys.