

# CNST-2590: PROFESSIONAL ASPECTS OF LAND SURVEYING

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## Cuyahoga Community College

**Viewing: CNST-2590 : Professional Aspects of Land Surveying**

**Board of Trustees:**

December 2023

**Academic Term:**

Fall 2024

**Subject Code**

CNST - Construction Engineering Tech

**Course Number:**

2590

**Title:**

Professional Aspects of Land Surveying

**Catalog Description:**

Introduction to professional practice and safety. Statute and common law pertaining to land surveying and real property rights. Metes and bounds legal descriptions and General Land Office/Bureau of Land Management real property descriptions. Minimum standards for boundary surveys. Minimum standards for mortgage location surveys. Code of ethics for Professional Engineers and Professional Surveyors. Case studies and lab activities.

**Credit Hour(s):**

1

**Lecture Hour(s):**

0

**Lab Hour(s):**

3

## Requisites

**Prerequisite and Corequisite**

CNST-1750 Construction Safety, and CNST-2535 Legal Principles in Surveying, or concurrent enrollment; or department approval.

## Outcomes

**Course Outcome(s):**

Describe legal considerations when practicing professionally.

**Essential Learning Outcome Mapping:**

Not Applicable: No Essential Learning Outcomes mapped. This course does not require application-level assignments that demonstrate mastery in any of the Essential Learning Outcomes.

**Objective(s):**

1. Describe key points from the Ohio Revised Code 4733 as to what is practicing surveying.
2. Describe how to become a licensed surveyor.
3. Describe types of paperwork required to practice surveying.

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**Course Outcome(s):**

Discuss crew safety and types of hazards when in the field.

**Essential Learning Outcome Mapping:**

Not Applicable: No Essential Learning Outcomes mapped. This course does not require application-level assignments that demonstrate mastery in any of the Essential Learning Outcomes.

**Objective(s):**

1. Describe safety hazards when practicing surveying in the field.
2. Describe common ways to manage traffic when performing a survey.

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**Course Outcome(s):**

Explain statute and common law pertaining to land surveying and real property rights.

**Essential Learning Outcome Mapping:**

Not Applicable: No Essential Learning Outcomes mapped. This course does not require application-level assignments that demonstrate mastery in any of the Essential Learning Outcomes.

**Objective(s):**

1. Explain the difference between statute and common law.
2. Describe how the court system is configured.
3. Describe real property rights.
4. Describe potential limitations on real property.

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**Course Outcome(s):**

Describe real property using metes and bounds method and General Land Office/Bureau of Land Management Methods.

**Essential Learning Outcome Mapping:**

Not Applicable: No Essential Learning Outcomes mapped. This course does not require application-level assignments that demonstrate mastery in any of the Essential Learning Outcomes.

**Objective(s):**

1. Identify when a metes and bounds description would be used.
2. Write a legal description of real property using metes and bounds method.
3. Describe General Land Office/Bureau of Land Management methods for identifying tracts of land.
4. Write a legal description of real property using General Land Office/Bureau of Land Management methods.

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**Course Outcome(s):**

Compare boundary surveys against OAC 4733-37 Minimum Standards for Boundary Surveys.

**Essential Learning Outcome Mapping:**

Not Applicable: No Essential Learning Outcomes mapped. This course does not require application-level assignments that demonstrate mastery in any of the Essential Learning Outcomes.

**Objective(s):**

1. Compare a metes and bounds boundary survey against Ohio Minimum Standards.
2. Compare a General Land Office/Bureau of Land Management boundary surveying against Ohio Minimum Standards.

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**Course Outcome(s):**

Explain 4733-35 Code of Ethics for Professional Engineers and Surveyors.

**Essential Learning Outcome Mapping:**

Not Applicable: No Essential Learning Outcomes mapped. This course does not require application-level assignments that demonstrate mastery in any of the Essential Learning Outcomes.

**Objective(s):**

1. Describe key points from the Ohio Administrative Code of Ethics for Professional Engineers and Surveyors.
2. Explain the importance for a Professional Surveyor to act ethically in addition to lawfully.
3. Analyze a case study on how a situation compares against the Ohio Administrative Code.

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**Course Outcome(s):**

Compare mortgage location surveys against OAC 4733-38 Minimum Standards for Mortgage Location Surveys.

**Essential Learning Outcome Mapping:**

Not Applicable: No Essential Learning Outcomes mapped. This course does not require application-level assignments that demonstrate mastery in any of the Essential Learning Outcomes.

**Objective(s):**

1. Perform a mortgage location survey for a hypothetical location.
  2. Create a CAD drawing of a mortgage location survey.
  3. Compare mortgage location survey against Ohio Administrative Code.
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**Methods of Evaluation:**

1. Exams
2. Quizzes
3. Homework
4. Laboratory Activities
5. Case Studies

**Course Content Outline:**

1. Introduction to Professional Practice and Safety
  - a. Hazards encountered by surveyors
  - b. Licensing and Professional Practice
  - c. Legal Considerations and Insurances
2. Ohio Administrative Code 4733-35: Code of Ethics for Professional Engineers and Surveyors
  - a. Ethical Considerations
  - b. Legal Requirements
3. Ohio Revised Code 4733 Introduction
  - a. Practicing Surveying
  - b. Experience Documentation
4. Ohio Revised Code 102 Introduction
  - a. Ethical Considerations
  - b. Case Studies
5. Real Estate Law
  - a. Real Property Rights
  - b. Real Property Limitations
6. Methods to describe real property
  - a. Metes and Bounds Legal Description
  - b. General Land Office/Bureau of Land Management Legal Description
7. Ohio Minimum Standards for Boundary Surveys
  - a. Review Requirements
  - b. Perform calculations
  - c. Compare prepared metes and bounds survey against minimum standards
  - d. Compare General Land Office/Bureau of Land Management survey against minimum standards
8. Ohio Minimum Standards for Mortgage Location Survey
  - a. Review Requirements
  - b. Complete a Mortgage Location Survey

**Resources**

Robillard, Walter G. & Donald Wilson . (2013) *Brown's Boundary Control and Legal Principles*, Wiley.

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Ghilani, Charles D. (2022) *Elementary Surveying: An Introduction to Geomatics*, Pearson.

**Resources Other**

Cuyahoga County Fiscal Officer Recorded Documents Database (2023) <https://cuyahoga.oh.publicsearch.us/>

Cuyahoga County GIS (2023) <https://gis.cuyahogacounty.us/html5viewer/?viewer=cegis>

Ohio Revised Code (2023) <https://codes.ohio.gov/ohio-revised-code>

Ohio Administrative Code (2023) <https://codes.ohio.gov/ohio-administrative-code>

Cuyahoga County Right-of-Way Plats (2022) <https://fiscalofficer.cuyahogacounty.us/en-US/PlatSearch.aspx>

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