



# INTRODUCTION TO CAD MAPPING

## OVERVIEW

Welcome to week 5: It's time to make our way back to the office and download and import our points into a Computer Aided Drafting (CAD) program. The advent of CAD and GIS programs has changed the mapping profession over the last twenty five (25) years by allowing all of us to share our maps electronically with one another. In a perfect world, all Geotechs would use the same mapping styles, symbols, layers, point numbers, and map layout but that's not how it is. Every region, country, county, city, and private business has their own preferences in CAD software used and map expectations. Understanding basic Cartography, Map elements, and the System of standardized folder, layer, and point naming and numbering will allow you to take advantage of CAD's automatic mapping functions when you import your field points. Map making is an Art form! Whether you're hand drafting or using a CAD program your maps will be viewed, critiqued, and hopefully admired J -- the "initial" CAD setup is the key to success!

## Topics:

- Introduction to CAD Mapping; Basic Map Elements & Standards
- Introduction to CAD Mapping; Import Field Points

## Outcomes:

1. Student will demonstrate his/her ability to comprehend and apply Standardized CAD folder, layer, and point numbering and naming conventions to his/her CAD map.
2. Student will demonstrate his/her ability to comprehend and identify Basic Map Elements.
3. Student will demonstrate his/her ability in applied survey math by reviewing field points in their coordinate geometry form for proper alignment and placement from the origin.
4. Student will demonstrate his/her ability to comprehend the point "Import" and "Export" process from the Field Data Collector into a CAD program.

## ACTIVITIES (REQUIRED)

### In-Class Meeting

1. In-Person Class meeting on Saturday, 6/20 @8am - 12pm. *(Each class attendance and participation will be worth 5 points.)*

### Lessons

Work through two Lessons below. Each lesson has several parts with a review quiz after each part. *(Each lesson is worth 10 points.)*

2. Lesson 5.1 Intro to CAD Mapping; Basic Map Elements & Standards



3. Lesson 5.2 Intro to CAD Mapping; Import/Export Field Points

## Assignments

4. Assignment 5: Online Research CAD Templates, Folder Structure and Naming Convention Standards
5. Lab #5: Locate, Measure, & Store Topo Points

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