



Spring 2024 Syllabus

Course:

SURV-10 (54708) Computer-Aided Drafting for Surveyors (credit for 3 units)

SURV-310 (54709) Computer-Aided Drafting for Surveyors (noncredit for 0 units)

Time/ Location: Thursdays, 6:00PM to 7:50PM, PHY 77

Instructor:

Nicholas Barbella

Office: PHY 77

Office Hours: Thursdays 5:30PM to 6:00PM

Office hours are an opportunity for you to ask me questions about grades, homework, quizzes and exams. Also, I can assist you in developing the skills covered in class. If you are interested in meeting with me after class or have questions about the homework please send me an email before the day of class. This way I may be able to modify that days lesson to answer your question. All questions will remain anonymous from the rest of the class.

Below is my phone number. Although I do prefer email, feel free to text me with any questions incase of emergency. Start the text with "SURV-10 (your name)".

Phone: 559-492-8749

Email: nicholas.barbella@reedleycollege.edu

Important Dates:

See this website for all important dates:

<https://www.reedleycollege.edu/academics/academic-calendar.html>

First day of Spring 2024 semester: 01/08/2024

Deadline to drop for full refund: 01/19/2024

Deadline to add or drop the class to avoid a "W" (withdrawal): 01/28/2024

Last day to drop a full-term class (letter grades assigned after this date): 03/08/2024

No class: 01/15; 02/16; 02/19; 03/25-29

Final Exam: Thursday, May 16, 2024 6:00PM to 7:50PM, PHY 77

Materials:

Required: ISBN 978-1-63057-494-9 *Autodesk Civil 3D 2023 Fundamentals*

Please Download:

Course materials:

<https://www.sdcpublications.com/Textbooks/Autodesk-Civil-3D-2023-Fundamentals/ISBN/978-1-63057-494-9/>

Civil 3D 2023:

<https://www.autodesk.com/education/edu-software/overview?sorting=featured&filters=individual.aec-products>

AutoCAD Hotkeys:

<https://www.autodesk.com/shortcuts/autocad>

Description:

This course introduces computer aided drafting for land surveying using AutoCAD Civil 3D.

Repeatability: SURV-10 may not be repeated after successful completion. SURV-310 is repeatable even after successful completion.

Course Objectives: In the process of completing this course, students will:

1. Explain, locate, and execute AutoCAD Civil 3D commands used to produce and plot a drawing.
2. Analyze the creation of Survey Points provided through field data collection techniques and their application in creating Survey Symbols using Point Groups in AutoCAD Civil 3D.
3. Describe TINS, the creation of a Surface on a map using Survey Points, and the use of these maps in industry, specifically in Civil Engineering.
4. Using data shown in the Proles and Section Views, compare and contrast the differences between Existing and Finished Grades and evaluate how these Grades relate to the Alignments.
5. Create and edit Parcels and describe Parcel Properties.
6. Using Alignments, Proles, and Assemblies data, explain the process to create Corridors, Intersections, and Sections.
7. Apply the knowledge of the menu structure in Civil 3D and produce a drawing using the Civil 3D menus.
8. Build a Surface using Survey points and produce a map showing Triangulation and Contours.
9. Generate a map with Alignments, Proles, Assemblies, Corridors and Sections usable by Civil Engineers in the Design process.
10. Create a map with Right-of-Way and Site Parcels and subdivide the Parcels using various Civil 3D Parcel commands.

Course Outcomes: Upon completion of this course, students will be able to:

1. Generate a drawing in AutoCAD Civil 3D using the commands located in the Ribbon and Menu Bars.
2. Analyze the AutoCAD Civil 3D Interface and all the uses of the Prospector and Settings tabs in the Civil 3D Toolspace.

Grading: Letter grades are given for SURV-10. Pass/No Pass grades are given for SURV-310. Current grades will be available to students throughout the semester on *Canvas*. Final grades will be calculated as follows:

SURV-310	
Pass (Y)	$\geq 70\%$;
No Pass (NP)	$< 70\%$

SURV-10	
A	90-100%
B	80-89%
C	70-79%
D	60-69%
F	$< 60\%$

Weight/Categories	
30%	Final Project
30%	Homework
40%	Class Attendance

Exams: The date for exams will be announced in advance. The purpose of exams is to assess learning and teaching. The lowest exam score will be dropped.

Cheating and Plagiarism: You will receive no credit for an assignment or exam if in the opinion of the instructor you have cheated or plagiarized. Academic Dishonesty is reported to the Dean's office.

Cheating is the act or attempted act of taking an examination or performing an assigned, evaluated task in a fraudulent or deceptive manner, such as having improper access to answers, in an attempt to gain an unearned academic advantage. Cheating may include, but is not limited to, copying from another's work, supplying one's work to another, giving or receiving copies of examinations without an instructor's permission, using or displaying notes or devices inappropriate to the conditions of the examination, allowing someone other than the officially enrolled student to represent the student, or failing to disclose research results completely.

Plagiarism is a specific form of cheating: the use of another's words or ideas without identifying them as such or giving credit to the source. Plagiarism may include, but is not limited to, failing to provide complete citations and references for all work that draws on the ideas, words, or work of others, failing to identify the contributors to work done in collaboration, submitting duplicate work to be evaluated in different courses without the knowledge and consent of the instructors involved, or failing to observe computer security systems and software copyrights. Incidents of cheating and plagiarism may result in any of a variety of sanctions and penalties, which may range from a failing grade on the particular examination, paper, project, or

assignment in question to a failing grade in the course, at the discretion of the instructor and depending on the severity and frequency of the incidents.

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Class Participation: Your active participation is key to your success. Some examples of what you will be expected to do include active listening, notetaking, group discussions, and class exercises.

Accommodations for students with disabilities: If you have a verified need for an academic accommodation or materials in alternate media (i.e., Braille, large print, electronic text, etc.) per the Americans with Disabilities Act (ADA) or Section 504 of the Rehabilitation Act, please contact the instructor as soon as possible.

Schedule (subject to change):

Weeks		
1 – 2	Chapter 1: The Autodesk Civil3D Interface -Read all of chapter 1 -Complete both practice 1a and 1b -complete Chapter review questions.	Chapter 2: Survey, points, and linework -Read all of chapter 2 -Complete practice 2a through 2e -complete Chapter review questions.
3 - 4	Chapter 3: Surfaces -Read all of chapter 3 -Complete practice 3a through 3d -complete Chapter review questions.	Chapter 4: Alignments -Read all of chapter 4 -Complete practice 4a through 4c -complete Chapter review questions.
5 - 6	Chapter 5: Profiles -Read all of chapter 5 -Complete practice 5a through 5b -complete Chapter review questions.	Chapter 6: Corridors -Read all of chapter 6 -Complete practice 6a through 6f -complete Chapter review questions.
7 - 8	Chapter 7: Grading -Read all of chapter 7	Chapter 8: Pipe networks -Read all of chapter 8 -Complete practice 8a through 8e

	<ul style="list-style-type: none"> -Complete practice 7a through 7b -complete Chapter review questions. 	-complete Chapter review questions.
9 - 10	<p>Chapter 9: Project Explore</p> <ul style="list-style-type: none"> -Read all of chapter 9 -Complete practice 9a through 9c -complete Chapter review questions. 	<p>Chapter 10: Plan Production</p> <ul style="list-style-type: none"> -Read all of chapter 10 -Complete practice 10a through 10c -complete Chapter review questions.
11 - 12	<p>Chapter 11: Autodesk Civil3D Styles and Settings</p> <ul style="list-style-type: none"> -Read all of chapter 11 -Complete practice 11a through 11e -complete Chapter review questions. 	<p>Chapter 12: Project Management</p> <ul style="list-style-type: none"> -Read all of chapter 12 -Complete practice 12a through 12b -complete Chapter review questions.
13 - 15	<p>Chapter 13: Parcels</p> <ul style="list-style-type: none"> -Read all of chapter 13 -Complete practice 13a through 13d -complete Chapter review questions. 	End of Class Project
16 -17	End of Class Project	End of Class Project
18	Final Exam	