

Civil Drafting 1

Syllabus

Instructor Information

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Instructor Office Information

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Class Information

Title Civil Drafting 1 - Spring 2010
Number of Weeks 17
Meeting Times/Location Tues 10:00AM - 12:00PM and Thurs 10:00AM - 1:00PM in T148

Course Description

Provides fundamentals necessary for using Civil Engineering software to create subdivision, property, traverse, topographic and contour drawings. Information collected in Surveying - Total Station is downloaded onto the computer to create drawings.

Prerequisites

1. Intro to AutoCAD 10-606-105
2. Intro to Surveying 10-607-155

Textbooks

1. Phillip J. Zimmerman. *Harnessing Autodesk Civil 3D 2010*. Edition: First. Publisher: Cengage Learning. Year: 2009. ISBN: 978-1-4354-9997-3. Pages: 833. Price: \$90.50. Required.

Supplies

1. 1 USB Drive. Required.

Exit Learning Outcomes Addressed In This Course

External Standards

Utilizing graphic techniques to produce engineering documents
Estimating material quantities for technical projects
Employing Productivity Software to solve technical problems

Program Outcomes

- A. Use technology to perform complex calculations
- B. Use technology to create engineering design drawings
- C. Use technology to create topographic drawings
- D. Interface surveying data and project design
- E. Estimate quantities and budgets used in construction projects

Core Abilities

- A. Act with integrity
- B. Communicate effectively
- C. Demonstrate effective critical and creative thinking
- D. Demonstrate global and social awareness

Course Level Learning Outcomes - Competencies

- 1. Construct 3-dimensional objects in AutoCAD software
- 2. Select appropriate drawing settings in Civil 3D
- 3. Calculate coordinate data using traverse data
- 4. Operate software to create and label points, lines, and parcels
- 5. Design a subdivision layout
- 6. Plot design drawings
- 7. Create 3-dimensional land surfaces
- 8. Create horizontal alignments and label them
- 9. Compile survey data files

Grading Information

Grading Rationale

30% Small Assignments and In-class work

20% Midterm Project

50% Final Project

Grading Scale

A 93-100 B- 80-82 D+ 67-69
A- 90-92 C+ 77-79 D 63-66
B+ 87-89 C 73-76 D- 60-62
B 83-86 C- 70-72 F Below 60

Guidelines and Information

Evaluation and deadlines Evaluation of student progress will be accomplished through exams, quizzes, field problems, homework, and regular attendance.

If you are unable to attend class, it is your responsibility to make arrangements with the instructor to complete your class responsibilities prior to your absence.

Deadlines are critical. Assignments (homework and class assignments) turned in after the due date, but no more than one week late, will receive half credit. Assignments turned in more than one week after the due date will be reviewed for feedback to the student, but no credit will be given. It is still to your benefit to complete all assignments. Legibility is important to assigned work. Illegible work cannot be graded (and receives no credit).

If a student misses an exam, the exam may be made up at a later date for reduced credit. Any bonus opportunities on the exam are not available to students taking the exam after the scheduled exam time. A 10% deduction is assessed on the exam if it is completed by the beginning of the next class meeting following the exam. After that time, the deduction changes to 20%

Good Attendance Bonus Good attendance bonus: If you miss two (or fewer) class meeting dates the entire semester, you can discard one quiz, OR one assignment grade from consideration in your final average. The exam/project scores cannot be discarded.

ADA Statement "If you know you have a recognized disability, or suspect that you might have one, it is your responsibility to identify yourself as soon as possible to the Disability Services staff in Student Services. Course standards will not be lowered, but various kinds of accommodations are available to you. Adequate and reasonable time will be required to develop and provide appropriate accommodations so contact Disability Services as soon as possible. It is MSTC's goal to assist you in your educational plan." Additional details and personnel contacts can be found in the MSTC Handbook under "Disabilities Services."

Academic Integrity The Mid-State Technical College Board, administration, faculty, and staff believe that academic honesty and integrity are fundamental to the mission of higher education. All students are expected to maintain and promote the highest standards of personal honesty and professional integrity. These standards apply to all examinations, assigned work, and projects. Therefore, a student who is found to have been dishonest, fraudulent, or deceptive in the completion of work or willing to help others to be so or who is found to have plagiarized (presented the work of others as his or her own) is subject to disciplinary action up to and including suspension.

Non-Threatening Classroom and Computer Laboratory Atmosphere Students are required to read the MSTC Computer Use Policies and Student Login Procedures especially as they relate to "objectionable" material.

This is an excerpt from the MSTC Students' and Employees' Right to Know circular:

The District Board, through its commitment to equal opportunity and nondiscrimination, will affirmatively provide that all employees and students can work or study in an environment free of sexual harassment and/or assault, in accordance with the laws of the United States and the State of Wisconsin.

These activities are offensive and are inappropriate in the college environment. This is a serious issue not just for the college, but also for each individual. These and similar activities which are a basis for personnel or student status decisions or which create a hostile, intimidating or offensive environment are specifically prohibited by MSTC. Whenever knowledge is received that a sex-based condition is being imposed, prompt and remedial action will be taken.

This action may include discharge from employment or suspension from classes, if the individual is a student. No permanent action will be taken without due process.

The use of the College computer resources shall be limited to the pursuit of academic or learning endeavors which do not violate other students' rights to a non-threatening atmosphere. Material which may in any way contribute to a harassing atmosphere in the classroom or computer laboratory will not be tolerated and will result in immediate loss of access to computer resources and possible disciplinary measures pursuant to MSTC policy.

Schedule

Session	Location	Learning Plan	Notes
Week 1	Construct 3-dimensional objects in AutoCAD software Plot design drawings	Modifying 3-D drawings and adding dimensions	Using Intro to AutoCAD textbook
Week 2	Construct 3-dimensional objects in AutoCAD software Plot design drawings	Creating 3-D objects in AutoCAD Modifying 3-D drawings and adding dimensions	Using Intro to AutoCAD textbook
Week 3	Construct 3-dimensional objects in AutoCAD software Plot design drawings	Creating 3-D objects in AutoCAD Modifying 3-D drawings and adding dimensions	Using Intro to AutoCAD textbook
Week 4		LDT Chapter 1 - Prototype, Project, and Drawing Settings	The Beginning - Chapter 1
Week 5			Points - Chapter 2
Week 6			Points - Chapter 2
Week 7	Operate software to create and label points, lines, and parcels		Sites and Parcels - Chapter 3
Week 8	Operate software to create and label points, lines, and parcels		Sites and Parcels - Chapter 3
Week 9	Operate software to create and label points, lines, and parcels		Sites and Parcels - Chapter 3
Week 10	Create 3-dimensional land surfaces		Surfaces - Chapter 4
Week 11	Create 3-dimensional land surfaces		Surfaces - Chapter 4
Week 12	Create 3-dimensional land surfaces		Surfaces - Chapter 4
Week 13	Create horizontal alignments and label them		Horizontal Alignments - Chapter 5
Week 14	Create horizontal alignments and label them		Horizontal Alignments - Chapter 5
Week 15	Plot design drawings Compile survey data files		Project
Week 16	Plot design drawings Compile survey data files		Project
Week 17	Plot design drawings Compile survey data files		Project