

CMCE 1211 Construction Drawings II – Computer Aided Drawing (CAD)

Course Description

This course provides the students with advanced skills and working knowledge using computer aided drafting techniques. Through the use of residential and commercial drawings, students build on their basic knowledge of both civil engineering and construction drawing principles and standards. Students will use advanced editing and drawing commands to create construction drawings. Three dimensional (3D) drawing and modeling techniques will be developed to facilitate students understanding of three dimensional design principles.

Prerequisites: CMCE 1110, CMCE 1155

1 class hr, 3 lab hrs, 2 credit

Textbook AutoCAD® 2015 and AutoCAD LT® 2015 Essentials, Scott Onstott
Autodesk Press

Reference Using AutoCAD, Autodesk Press

Student Learning Outcomes

Upon graduation, each student is expected to demonstrate the following:

1. utilize principles, hardware, and software that are appropriate to produce drawings, reports, quantity estimates, and other documents related to civil engineering; (ABET Program Criterion a.)
2. an ability to apply the knowledge, techniques, skills, and modern tools of the discipline to narrowly defined engineering technology activities; (ABET Criterion 3.a)
3. an ability to apply written, oral, and graphical communication in both technical and nontechnical environments; and an ability to identify and use appropriate technical literature; (ABET Criterion 3.f)

Student Evaluations

Drawings:	45%
Midterm Exam:	20%
Final Exam:	25%
Participation/Attendance	10%
Final Grade =	100%

Individual Assignment Grading Policy:

Correctness	50% (Assignment meet requirements)
Craftsmanship	50%(Assignment uses correct layers, lineweight, linetypes, etc)

Note: Grades will be downgraded proportionally for incomplete work.

Letter Grade	Numerical Grade Ranges	Quality Points
A	93-100	4.0
A-	90-92.9	3.7
B+	87-89.9	3.3
B	83-86.9	3.0
B-	80-82.9	2.7
C+	77-79.9	2.3
C	70-76.9	2.0
D	60-69.9	1.0
F	59.9 and below	0.0

Technology

Students will prepare and submit drawings, using the AutoCAD drawing program.

Class Policies:

A. Class Attendance: Come to every class prepared and on time! You will not be able to participate in class if you do not have your supplies with you.

It is very important for students to attend all classes. A student may be absent without penalty for 2 class meetings during the semester.

Students are responsible for getting any assignments missed due to absence/tardy.

Students should make every effort to be on time to class. If there is a conflict with schedule or in cases of emergency where the student will be late, it is the student's responsibility to contact the instructor before the scheduled class to avoid late attendance penalty.

Late Policy:

Any student who arrives after the attendance has been taken will be considered late.

- Two such latenesses will count as one absence.

"Real World" Clause: In life there are emergencies, certain events, and other extenuating circumstances that are beyond our control. In the event that a student cannot adhere to the policies listed the student **MUST**:

1. Contact "Me" immediately via telephone, e-mail, or in person and inform me of the situation.
2. Meet with "Me" to discuss and document an alternative agreement.

If you have a problem, please arrange an appointment ASAP to discuss it with me in private. I will do the best that I can to **HELP YOU**.

B. Homework Assignments

1. Assignments must be submitted at the **Start of Class** on the Due Date, otherwise they are considered late.
2. **Late Assignments** are only accepted at the start of the following session and receive a 10 point deduction. **Drawings more than one session late will not be accepted.** No Excuses!
3. You will not be able to resubmit Assignments.

C. Final Project:

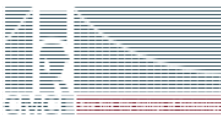

Late Final Projects will not be accepted under any circumstances. The Final Project is due by the end of class of the last class session. An incomplete Final Project will automatically be downgraded a minimum of 25% based on completion.

D. Free Pass – Each student is allowed one *Free Pass* for the given semester. The *Free Pass* may be used to extend an Assignment Deadline by one class session. The student must submit their copy of the pass when they turn in the assignment and have it signed by the Professor .

E. Academic Integrity: Students and all others who work with information, ideas, texts, images, music, inventions and other intellectual property owe their audience and sources accuracy and honesty in using, crediting and citation of sources. As a community of intellectual and professional workers, the college recognizes its responsibility for providing instruction in information literacy and academic integrity, offering models of good practice, and responding vigilantly and appropriately to infractions of academic integrity. Accordingly, academic dishonesty is prohibited in The City University of New York and is punishable by penalties, including failing grades, suspension and expulsion.

**Professor Michael Loo
Course Coordinator:**

mloo@citytech.cuny.edu **Office Hours: Friday 11:20 am-12:20 pm**
Anthony Cioffi, P.E., Professor (Last Updated: August 26, 2015)

CMCE 1211 Construction Drawings II	
	
Name: _____	
Date and Assignment: _____	
The holder of this Free Pass Certificate may extend a Project Deadline without penalty by one class session.	
Authorized Signature: _____	
Prof. Loo	

Course Outline:

	Week	Topic	Reading/ Text Reference	Lab Assignment
1/31	1	<ul style="list-style-type: none"> • Introductions and Course Review. • Practice Drawing Assignment • Review Basic Concepts/Entities/ Curves – polylines, splines, curved polylines and ellipses. • Review of Field Notes and Documentasion Basics • Introduction to Drawing #1 	Chapter 2, 3, 4 & 5	<ul style="list-style-type: none"> • -Select a space that will be your case study for the semester
2/7	2	Layers, Blocks (block definition, rotating, unblocking and redefine, editing, nesting, Wblocks)/ Hatching & Gradients	Chapter 6(pg 123), 7 & 8	Photos and sketches of case study due
2/14	3	Blocks & Xrefs (External References)	Chapter 9	Field Notes Due (Dimensions, sketches, Notes, Photos)
2/21	4	Layouts, Title Blocks & Work Session	Chapter 12	
2/28	5	Plotting Basics & Work Session	Chapter 14 & 15	
3/6	6	Review for Midterm		Drawing #1 Due
3/13	7	Mid Term		
3/20	8	Midterm Review/Work Session		Assign Drawing #2
3/27	9	Annotative Objects/Work Session	Chapter 13	
4/3	10	Attributes/Work Session	Chapter 15	
4/10		NO CLASS		
4/17	11	Introduction 3D Models Basic concepts for Creating and Modeling 3D Drawings	Chapter 16	Drawing #2 Due Assign Drawing #3
4/24	12	Advanced 3D features (camera views)	Chapter 17	
5/1	13	Rendering 3D Drawings	Chapter 17	
5/8	14	Review For Final & Work Session		Drawing #3 Due
5/15		NO CLASS		
5/22	15	Final Exam		

File Naming Standards: LOO_S_20-FirstName_LastName-Dwg_1.dwg (.pdf, .jpg)
LOO_S-20-John_Smith-Dwg_2.dwg

Submission Requirements: Autocad File, PDF, Hard copy. As described in Drawing Assignment.

Class "Supply List": MUST HAVE FOR 2ND CLASS MEETING

City Tech Email Account
DropBox Account
Blackboard Access
Flash Drive
Architectural Scale
Tape Measure
Graph Paper
Access to Computer with Autocad
Text Book (optional)

