
MIDDLESEX

COUNTY COLLEGE

COURSE SYLLABUS

Department:	Engineering Technologies
Program:	Civil Engineering Technology
Course Number:	CIT 126
Title of Course:	Advanced Civil Drawing/CAD-II
Curriculum Coordinator:	Daniel Grek
Designation:	Required Course

Course Description:

A study and execution of drawings encountered in civil and construction engineering. Topics include: structural steel fabrication, reinforced concrete drawings, plot plans, and customization of the AutoCAD menu system. Drawings will be generated using surveyor's notes and calculations associated with horizontal and vertical control survey plans, deed plans, and topographical plans. All drawing are developed using AutoCAD software. Students will use Land Development CAD and the Architectural Desktop to facilitate creating these drawings. The completion of a comprehensive final project is required.

Prerequisite:

MEC 123 Technical Graphics/CAD I

Co-requisite:

None

Textbooks and /or other required material:

AutoCAD Civil 3D by Chappel, Wiley, 1st Ed

Course Learning Outcomes and their relationships to Student Outcomes:

1. Demonstrate the ability to use and understand schedules, typical sections, and symbols common to civil engineering and surveying drawings.
2. Draw and detail reinforced concrete systems to scale. **(SO f)**
3. Draw and detail structural steel members and connections to scale. **(SO f)**
4. Draw and detail piping schematics.
5. Using Civil 3D, draw town surveys and sub-divisions complete with north arrows and labeled plots. **(SO a)**

1.

Topics Covered:

- Fit an appropriate scale to any Civil drawing
- Create a north arrow and title block
- Customize AutoCAD to facilitate speed and productivity
- Bearing, latitude, departure, coordinates
- Steel Fabrication Drawings
- Introduction to Land Development CAD
- Reinforced Concrete Drawings
- Horizontal curves
- Introduction to Architectural Desktop
- Oil Tank Abutment layout

Class/Laboratory schedule. Number of sessions each week and duration of each session:

2 lecture hours per week for 14 weeks

4 laboratory hours per week for 14 weeks

Criterion 5 Contribution: Technical Content

Prepared By:	Jay Edelson	Date:	9/17/2008
Updated By:	Jay Edelson	Date:	1/20/11
Rev 2:	Jay Edelson Update mapping of course outcomes to 2014-2015 ABET student outcomes	Date:	4/7/14
Rec 3:	General Update	Date:	3/15/21