



Course Syllabus

Course Code	Course Title	ECTS Credits
CEE-112	Technical Drawing and CAD	5
Prerequisites	Department	Semester
None	Engineering	Fall, Spring
Type of Course	Field	Language of Instruction
Required	Civil & Environmental Engineering	English
Level of Course	Lecturer(s)	Year of Study
1 st Cycle	Dr Demetris Photiou	1 st
Mode of Delivery	Work Placement	Corequisites
Face-to-face	N/A	None

Course Objectives:

The main objectives of the course are to:

- Educate the students in reading and understanding engineering and architectural drawings.
- Train students in the use of the computer as a drafting tool.
- Provide students the ability to develop and produce formal engineering drawings according to standard drafting practice using Computer Aided Design (CAD).
- The course will provide hands-on practice of CAD through the use of the specialized CAD software.
- Improve the student's ability to visualize 3D geometrical constructions and provide them with the latest trends in computer-aided design which are used in modern civil engineering applications.
- Encourage students to incorporate computer-based design tools in subsequent structural courses.

Learning Outcomes:

After completion of the course students are expected to be able to:

- Read and interpret engineering drawings.
- Gain a design experience using software drawing tools and techniques.
- Execute CAD commands for drawing entities, editing, drawing setup, viewing and plotting.
- Create Plans and sections of 3D objects and buildings.
- Dimension and scale drawings for plotting.
- Prepare technical drawings using computer aided drafting technology.

Course Content:

- Introduction to Computer Aided Design.
- Principles and practice of sketching.
- Theory and practice on plans, sections and Orthographic Views.
- Dimensioning.
- Design and working drawings.
- Plotting
- Introduction to 3D modelling.
- Introduction to Building Information Modelling

Learning Activities and Teaching Methods:

Lectures, Computer Lab sessions, daily/weekly projects (homework), final project

Assessment Methods:

Homework, class assignments in CAD software, mid-term exam, final exam.

Required Textbooks / Readings:

Title	Author(s)	Publisher	Year	ISBN
Technical Drawing with Engineering Graphics	Frederick E. Giesecke Ivan L. Hill Henry C. Spencer Alva E. Mitchell	Peachpit Press	2016	978-0134306414

Recommended Textbooks / Readings:

Title	Author(s)	Publisher	Year	ISBN
Structural, Civil and Pipe Drafting	David L. Goetsch	Cengage Learnin	2013	978-1133949398