Module (Course Syllabus) Catalogue

2023-2024

College/ Institute	Erbil Technical Engineering College	
Department	Civil Engineering Department	
Module Name	Computer Application - AutoCAD	
Module Code	COA205	
Degree	Technical Diploma [ ] Bachelor [*] High Diploma [ ] Master [ ] PhD [ ]	
Semester	2	
Qualification	BSC	
Scientific Title	Engineer	
ECTS (Credits)	5	
Module type	Prerequisite [ ] Core [*] Assist. [ ]	
Weekly hours	4	
Weekly hours (Theory)	(N/A)hr. Class	(N/A)Total hrs Workload
Weekly hours (Practical)	(4)hr. Class	(135)Total hrs Workload
Number of Weeks	12	
Lecturer (Theory)	Diyar Ismail Hassan	
E-Mail & Mobile NO.	Diyar.hassan@epu.edu.iq	
Lecturer (Practical)	Bakhtyar Firyad Abdulrahman	
Websites	https://moodle.epu.edu.iq/course/view.php?id=437	

Course Book

Course Description	AutoCAD is the standard design software used in the engineering, architecture, interior design and construction industries. Designers and drafters use it to create two-dimensional (2D) and three-dimensional (3D) computer drawings. Students interested in learning how to use this software can complete coursework to earn non-credit classes at a higher education institution. Moreover, passed of this course may find employment with architectural and design firms, construction businesses or engineering companies.
Course objectives	In this course students will learn sketching and taking field dimensions. Also, they will take data and transform it into graphic drawings. Students will learn basic engineering drawing formats. Learn basic AutoCAD skills. Furthermore, learn who draw 2D drawings in AutoCAD.
Student's obligation	Attending the lecture is a fundamental part of the course. Students are expected to attend every class meeting for the entire class period. Only extreme circumstances should require your missing class. If you do miss class, it is your responsibility to obtain announcements, course documents and assignments. You are responsible for implementations presented in the PDF lecture class whether or not it is implemented in the computer lab. You should expect questions on the exams to test your understanding of ideas that discussed in the lecture and in the homework assignments. It can be very helpful to study with a group. This type of cooperative learning is inspired however, be sure that you have a thorough comprehending of the concepts besides the practice drawing steps used to solve a problem. You must be able to draw extra figures through the AutoCAD drawing on your own. Students will need to submit the required homework, reports, seminars and/or any other assignments requested by the lecturer in time and in accurate method.
Required Learning Materials	The different types of teaching-learning materials are, video TLMs, overhead projector, Power Point slides, computers.

			Task	Weight (Marks)	Due Week	Relevant Learning Outcome
Evaluation	Paper Review			**N/A**		
	Assignments	Homework		10	3,5,6,7,8,12	2-6
		Class Activity		2	3-12	1-6
		Report		N/A		
		Seminar		8	12	2
		Essay		N/A		
		Project		8	3-11	3,4,6
	Quiz			8%	3,5,7,9	2-5
	Lab.			N/A		
	Midterm Exam			24%	10-12	1-6
	Final Exam			40%	13-15	1-6
	Total			100%		

Specific learning outcome:	On successful completion of this module, students should be able to 1- perform basic sketching techniques will improve 2- draw projections and sections 3- use engineering scales will increase 4- produce engineered drawings will improve 5- become familiar with office practice and standards 6- become familiar with AutoCAD two-dimensional drawings
Course References:	1. Residential Design Using AutoCAD 2017 - With Code - 16 edition ….. by Daniel John Stine 2. AutoCAD 2017 Tutorial: First Level 2D Fundamentals - 16 edition ….. by Randy Shih 3. AutoCAD 2017 for the Interior Designer - 16 edition …… by Muccio

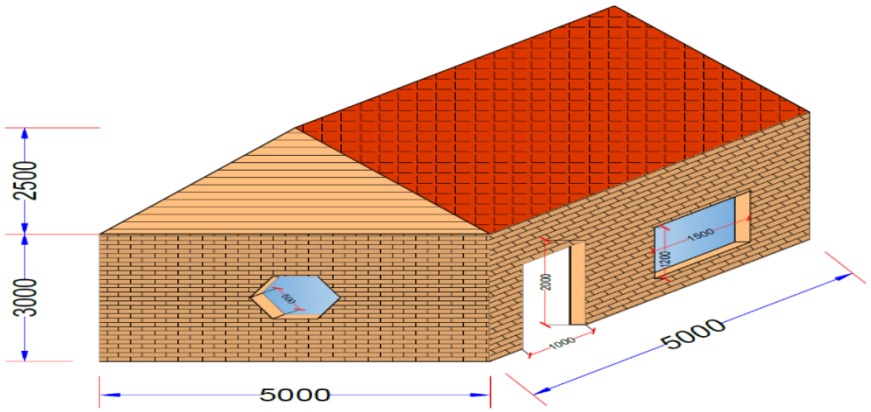
Practical Topics	Week	Learning Outcome
Introduction to CAD, the commands and the techniques	1	1
Introduction to computer aided drafting software, Limits command, Grid & Snap 1	2	1
Drawing commands: Line, Construction line,	3	2, 3
Drawing commands: Circle, Rectangle, Ray 1	4	2,3,4
Modify commands: Erase, Offset, Fillet,	5	2,3,4
Modify commands: Chamfer, Trim, Extend, Zoom command	6	2,3,4
Drawing commands: Polygon, Arc, Ellipse, Polyline ,Multiline, Text, Hatch 1	7	2,3,4
Modify commands: Explode, Move, Break Stretch and Layer properties	8	2,3,4,5
Modify command: Copy, Mirror, Rotate, Array,	9	2,3,4,5
Dimension command and Plot command	10	2,3,4,5
Drawing standard part of figures and given shapes	11	2,3,4,5,6
Drawing standard part of figures and given shapes	12	2,3,4,5,6

Questions Example Design

Examinations (question design):

The exam questions may have similarities with the examples and Homework assignments taught during the course, but it is not necessary to be the same.

Question: - Draw the figure below when dimensions are in millimetres with drawing scale 1:50



Extra notes:

Lecturing will be kept to a level necessary to create greater comprehending of the principles and techniques described in the PDF lecture. Students will be actively involved in learning during the class. Also, it is preferred to have your own PC and bring it to lab with yourself.

Because each class builds on previous classes, it is necessitating to keep up with assignments. Collaboration on homework is allowed for the purpose of improving learning. Any student may be called upon at any time to present a home work to the class. Homework will be checked for completion. Also late homework will not be possible.

External Evaluator

As a lecturer I have reviewed the Course Book related to the subject of Engineering drawing for first year, Department of Civil Engineering, College of Technology, I found that the Course Catalogue is very good describing the aim and objectives of the subject. Moreover, it is covering all the required syllabus and contents of the course and describes satisfactorily the aspects related to the course.

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