

Module (Course Syllabus) Catalogue

2022-2023

College/ Institute	Erbil Technical Engineering	
Department	Civil Engineering	
Module Name	Computer Application - AutoCAD Drawing	
Module Code	COA205	
Degree	Technical Diploma <input type="checkbox"/>	Bachler <input checked="" type="checkbox"/>
	High Diploma <input type="checkbox"/>	Master <input type="checkbox"/> PhD <input type="checkbox"/>
Semester	2	
Qualification	<p>Education:</p> <ol style="list-style-type: none"> 1- Bsc. Civil Technical Engineering at Erbil Polytechnic University 2011 – Iraq 2- Msc. Civil Engineering at Portland State University 2016– USA. <p>Experience:</p> <ol style="list-style-type: none"> 1- Civil Drawing – First Stage – 2012 & 2013. 2- Transportation Engineering – Fourth Stage 2018 till now. 3- Mathematic – First Stage – 2018. 4- Construction Technique – Second Stage – 2018 & 2019. 	
Scientific Title	Assistant Lecturer	
ECTS (Credits)	5	
Module type	Prerequisite <input type="checkbox"/>	Core <input type="checkbox"/> Assist. <input checked="" type="checkbox"/>
Weekly hours	4	
Weekly hours (Theory)	(N/A)hr. Class	(N/A)Total hrs Workload
Weekly hours (Practical)	(4)hr. Class	(136)Total hrs Workload
Number of Weeks	12	

Lecturer (Theory)	Bayad A. Ahmed (Msc.)
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Lecturer (Practical)	Twana Ali Omar (Msc.)
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Websites	N/A

Course Book

Course Description	<p>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.</p>
Course objectives	<p>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.</p>
Student's obligation	<p>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.</p> <p>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.</p> <p>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.</p>

Required Learning Materials	The different types of teaching-learning materials are, video TLMS, , overhead projector, Power Point slides, computers.				
Evaluation	Task	Weight (Marks)	Due Week	Relevant Learning Outcome	
	Paper Review				
	Assignments	Homework	10%	1-12	1-6
		Class Activity	2%		
		Report			
		Seminar	8%		
		Essay			
		Project	8%		
	Quiz	8%	3,5,7,9	2-5	
	Lab.				
	Midterm Exam	24%	10-12	1-6	
	Final Exam	40%	14-20	1-6	
Total	100%				
Specific learning outcome:	<p>On successful completion of this module, students should be able to:</p> <ol style="list-style-type: none"> 1- Improving perform basic sketching techniques. 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:	<ol style="list-style-type: none"> 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 millimeters with drawing scale 1:50



