Module (Course Syllabus) Catalogue

2023-2024

College/ Institute	Technical engineering college	
Department	Mechanical and energy engineering	
Module Name	AutoCAD	
Module Code	COA802	
Degree	Technical Diploma ☐ Bachler ■ High Diploma ☐ Master ☐ PhD ☐	
Semester	Eight	
Qualification	PhD	
Scientific Title	Lecturer	
ECTS (Credits)	4	
Module type	Prerequisite ☐ Core ■ Assist. ☐	
Weekly hours	3 hrs	
Weekly hours (Theory)	(0)hr Class	(0)Total hrs Workload
Weekly hours (Practical)	(3)hr Class	(3)Total hrs Workload
Number of Weeks	12	
Lecturer (Theory)	Dr. Sally Afram Polus	
E-Mail & Mobile NO.	Sally.polus@epu.edu.iq 07507666511	
Lecturer (Practical)	Ms. Esraa Ahmed Khodadad	
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Websites	https://moodle.epu.edu.iq/course/view.php?id=3745	

Course Book

Course Description	AutoCAD course gives students knowledge and skills about AutoCAD program because AutoCAD provides countless methods and tools for producing, viewing and editing two dimensional drawings and three-dimensional models. The software permits designers, drafters, engineers and others to create, revise, model and document industrial parts and assemblies for prototyping, model making and manufacturing. Around the world organizations also use AutoCAD for the design of maps, buildings, bridges, factories, mechanical and A/C systems.
Course objectives	The primary purpose of the study of AutoCAD is to gives student a knowledge and skills about how to apply AutoCAD's commands and tools to draw and design any engineering systems and specially mechanical system such as mechanical tools as well as ducting and piping design.
Student's obligation	• Attendance and participation in the lecture are mandatory and will be considered in the grading. • There will be several quizzes during the academic year, not necessarily announced. The quiz contains the materials covered in previous lectures. • There are 90-minute midterm exams and a 180 -minute final exam. All tests are in class, closed book, and closed notes. • Any quiz or test missed without a supported documented and excused absence will represent a zero. Other activities like reports, mechanical project and presentation.
Required Learning Materials	• AutoCAD program must be uploaded on student's laptop. • Data show, white board and PowerPoint are used throughout the lecture, drawing and design would be implemented at computer Lab. Publish all lecture notes in college website before the lecture day.

Evaluation	**Task**		**Weight (Marks)**	**Due Week**	**Relevant Learning Outcome**
	Paper Review				
	Assignments	Homework	2	All the weeks	
		Class Activity	5	All the weeks	
		Report	5	Week 9	
		Seminar	5	Week 6	
		Essay			
		Project		Week 9	
	Quiz		8	Week 3&7	
	Lab.		10	All the weeks	
	Midterm Exam		25		
	Final Exam		40		
	Total				

Specific learning outcome:	The course will give the fundamental knowledge and practical abilities in the following: Theory: • Studying AutoCAD's user's guide. • Applying AutoCAD's commands. • Drawing engineering systems including mechanical and ac systems. • Drawing includes 2D and 3D modelling. Laboratory practice: • to gives student a knowledge and skills about how to apply AutoCAD's commands and tools to draw and design any engineering systems • producing, viewing and editing two dimensional drawings and three-dimensional models • Use AutoCAD for the design of maps, mechanical and a/c systems.
Course References:	• Applying AutoCAD 2010 by: Terry T. Wohlers • AutoCAD 2007 by Mustafa abdualshafi • Applying AutoCAD 2010 by Terry T. Wohler

Course topics (Theory)	**Week**	**Learning Outcome**

Introductions and basic concepts	1	1
Drawing aids and controls	2,3&4	2
Drawing and editing	5&6	3
Dimensioning and tolerancing	7&8	3
Preparing and printing a drawing	9	4
Groups and details	10	4
Text and tables	11	5
3D drawing and modelling	12	5

Practical Topics	**Week**	**Learning Outcome**
Introductions and basic concepts	1	1
Drawing aids and controls	2,3&4	2
Drawing and editing	5&6	3
Dimensioning and tolerancing	7&8	3
Preparing and printing a drawing	9	4
Groups and details	10	4
Text and tables	11	5
3D drawing and modelling	12	5

Questions Example Design

1. Compositional:
   Q / Compare between the following commands: Layer Lock, Layer Freeze and Layer off. Solution:

2. Sketching or Drawing type of exams
   Q/ How to Draw a 5-point star in AutoCAD using simplest way? Solution: Step 1. Draw a polygon Draw a polygon with 5 sides.

3. Multiple choices:
   Q / Press the F9 key of the keyboard for:
   (a) Grid on/off (b) Snap on/off (c) Ortho on/off (d) Osnap on/of

Extra notes:

No extra notes

External Evaluator

I hereby confirm that the syllabus is sufficient for the subject.

Dr. Hindren Ali Saber

29/01/2024