



Ministry of Higher Education and
Scientific Research - Iraq
University of Diyala
College of Artificial Intelligence
Engineering Technology
Department of Artificial Intelligence
Engineering



الملحق 4: وصف المادة الدراسية

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Engineering Drawing		Module Delivery
Module Type	Support learning activities		<input type="checkbox"/> Theory <input type="checkbox"/> Lecture <input type="checkbox"/> Tutorial <input checked="" type="checkbox"/> Practical <input type="checkbox"/> Seminar
Module Code	AIE 107		
ECTS Credits	4		
SWL (hr/sem)	100		
Module Level	1	Semester of Delivery	
Administering Department	Al. Eng.	College	College of Artificial Intelligence Engineering Technology
Module Leader	Ali Abbood Khaleel	e-mail	Draliak@uodiyala.edu.iq
Module Leader's Acad. Title	Lect.	Module Leader's Qualification	PhD.
Module Tutor	Name (if available)	e-mail	E-mail
Peer Reviewer Name		e-mail	
Scientific Committee Approval Date	10/11/2025	Version Number	1.0



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Relation with other Modules

العلاقة مع المواد الدراسية الأخرى

Prerequisite module	None	Semester	
Co-requisites module	None	Semester	

Module Aims, Learning Outcomes and Indicative Contents

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

Module Objectives أهداف المادة الدراسية	<ol style="list-style-type: none">1. The students obtain knowledge and understanding in the subject of engineering drawing by using the computer through the AutoCAD program2. Understanding and teaching students the basics of engineering drawing related to computer engineering3. Knowing the correct methods of engineering drawing using the computer and how to apply them in the AutoCAD program in the field of computer engineering4. Increasing the student's experience in identifying drawing, designing engineering, electronic shapes, and electrical circuits.5. Easy to publish, and give the drawing on people across the globe just in a second.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	<ol style="list-style-type: none">1. Explain why CAD software is now replacing traditional pencil drawing.2. Explain commands and AutoCAD's user interfaces, description of menu Bar and toolbars of AutoCAD3. Recognize how AutoCAD defines the position of points with coordinates and specify the angle in AutoCAD4. Explain How to draw lines, circles, Ellipses, Rectangles and arcs using precise methods5. Learn editing commands: copy, cut, paste, erase, move, selecting objects, orthogonal projection, ISO drawing.6. Developing the students' practical, theoretical and creative abilities in computer design techniques of various types. CAD Electrical, drawing electrical symbols on simple architectural plans
Indicative Contents المحتويات الإرشادية	Indicative content includes the following. <u>Part A – AutoCAD interfaces</u>



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	<p>The use of CAD in engineering drawing, description of menu Bar and toolbars [6 hrs]</p> <p><u>Part B – Drawing</u></p> <p>Drawing Ellipse, Rectangle, line, Ray, Circle, point, Arc, ----- etc. [24 hrs]</p> <p><u>Part C – Editing Commands and CAD Electrical</u></p> <p>CAD Electrical, the use of various layers, drawing electrical symbols on simple architectural plans, editing commands: copy, cut, paste, erase, move, selecting objects, orthogonal projection, ISO drawing. [15 hrs]</p>
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Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	<p>The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises, while at the same time refining and expanding their critical thinking skills. This will be achieved through classes, homework's and examples. Practical examples helps students to understand the course material.</p>

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	48	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	3.2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	52	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	3.5
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	100		



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Module Evaluation تقييم المادة الدراسية					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (5)	7 and 12	LO #1 to #4 and #5, #6
	Assignments	2	10% (5)	4 ,6 and 13	LO #1 to #3 and #4 to #6
	Practice/lab	1	10% (10)	Continuous	All
	Participation & Attendance	1	10% (10)	Continuous	All
Summative assessment	Midterm Exam	2hr	10% (10)	8	LO #1 to #4
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	The use of CAD in engineering drawing
Week 2	description of menu Bar and toolbars
Week 3	Line, point
Week 4	Rectangle
Week 5	Circle
Week 6	drawing Ellipse
Week 7	Arc, ----- etc.
Week 8	editing commands
Week 9	copy, cut
Week 10	paste, erase



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Week 11	move
Week 12	selecting objects
Week 13	selecting objects
Week 14	CAD Electrical selecting objects
Week 15	Mechanical/ Special features The use of various layers selecting objects
Week 16	Preparatory week before the final Exam

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	<ul style="list-style-type: none"> • AutoCAD 2019 Beginning and Intermediate • The benefits of using the electrical toolset in AutoCAD 	pdf
Recommended Texts	<ul style="list-style-type: none"> • Any other materials available on the web. 	No
Websites	https://www.youtube.com/playlist?list=PLHCD1a8slQtJbEKJawJL9qQaY5P9SgCUX	

Grading Scheme مخطط الدرجات				
Group	Grade	التقدير	Marks %	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 - 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.