Ministry of Higher Education and
Scientific Research - Iraq
University of Diyala
College of Engineering
Department of Computer Engineering

الملحق ٤: وصف المادة الدراسية

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	**Engineering Drawing Using AutoCAD**			**Module Delivery**	
Module Type	**Basic learning activities**			☐ **Theory** ☐ **Lecture** ☐ **Tutorial** ☒ **Practical** ☐ **Seminar**	
Module Code	**CPE 107**				
ECTS Credits	**3**				
SWL (hr/sem)	**45**				
Module Level	1		**Semester of Delivery**	1	
Administering Department	Computer Eng.		**College**	College of Engineering	
Module Leader	Rania Hazim Ali		**e-mail**	Rania_hazim_enge@uodiyala.edu.iq	
Module Leader's Acad. Title	Assist. Lecturer		**Module Leader's Qualification**	MSc.	
Module Tutor	Name (if available)		**e-mail**	E-mail	
Peer Reviewer Name	Ali N. Albu-Rghaif		**e-mail**	ali.alb-Rghaif@uodiyala.edu.iq	
Scientific Committee Approval Date	11/06/2023		**Version Number**	1.0	

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	1. The students obtain knowledge and understanding in the subject of engineering drawing by using the computer through the AutoCAD program 2. Understanding and teaching students the basics of engineering drawing related to computer engineering 3. Knowing the correct methods of engineering drawing using the computer and how to apply them in the AutoCAD program in the field of computer engineering 4. 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	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 AutoCAD 3. Recognize how AutoCAD defines the position of points with coordinates and specify the angle in AutoCAD 4. Explain How to draw lines, circles, Ellipses, Rectangles and arcs using precise methods 5. 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.** Part A – AutoCAD interfaces The use of CAD in engineering drawing, description of menu Bar and toolbars [6 hrs] Part B – Drawing Drawing Ellipse, Rectangle, line, Ray, Circle, point, Arc, ---------- etc. [24 hrs] Part C – Editing Commands and CAD Electrical 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]

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	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.

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**
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	**27**	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	**1.8**
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	**75**		

Module Evaluation تقييم المادة الدراسية					
		Time/Number	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
Formative assessment	**Quizzes**	**2**	**10% (10)**	**7 and 12**	**LO #1 to #4 and #5, #6**
	Assignments	**3**	**20% (20)**	**4 ,6 and 13**	**LO #1 to #3 and #4 to #6**
	Practice/lab	**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
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	• AutoCAD 2019 Beginning and Intermediate • The benefits of using the electrical toolset in AutoCAD	pdf
Recommended Texts	• 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.