DULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	**Engineering Drawing II**			**Module Delivery**	
Module Type	**Basic learning activities**			☒ **Theory** ☒ **Lecture** ☐ **Lab** ☐ **Tutorial** ☒**Practical** ☐ **Seminar**	
Module Code	**PRE111**				
ECTS Credits	**6**				
SWL (hr/sem)	**150**				
Module Level	1		**Semester of Delivery**	2	
Administering Department	Type Dept. Code		**College**	Type College Code	
Module Leader	Sura M. Ali		**e-mail**	swazaal@uomosul.edu.iq	
Module Leader's Acad. Title	Assistant teacher		**Module Leader's Qualification**	MSC	
Module Tutor	Zaid Salah Aldan		**e-mail**	E-mail	
Peer Reviewer Name	Name		**e-mail**	E-mail	
Scientific Committee Approval Date	01/06/2023		**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**	Get acquainted with the program interface and the various toolbars for development Design frameworks and prototypes for projects Training in the AutoCAD program and dealing with all its tools professionally, drawing geometric shapes, polygons, the ellipse, setting dimensions, creating different layers commensurate with the needs of the engineer in various specializations, and learning how to draw from walls, columns, pipes, and so on. Developing the skill of division, creating plans, and enhancing structural drawings and three-dimensional models. Finally, practice how to draw an integrated project.

Module Learning Outcomes **مخرجات التعلم للمادة الدراسية**	Use the program and know its capabilities. Through this chapter students are able to create two-dimensional and three-dimensional drawings and diagrams through a detailed explanation of the advantages of AutoCAD, realizing the basic concepts in the AutoCAD two- and three-dimensional program. Developing skills in the field of engineering drawing, deducing heights and dimensions in drawing, as well as the possibility of placing them on different drawings , Doing colorful designs and multiple specializations. And dealing with keyboard shortcuts on the computer to achieve speed in work and skill. Possess the ability to deal with the AutoCAD program to serve the work and reduce the possibility of error. Gain the skill of drawing diagrams with colored interfaces. Draw everything that comes to mind in his specialty. As well qualification to deal with other engineering programs. Working in external companies as a specialist in AutoCAD drawing
Indicative Contents **المحتويات الإرشادية**	Indicative content includes the following. **Introduction to AutoCAD programs.** Get acquainted with the program interface Ribbons tool boards Setting the program interface Work file preparation Use drawing tools Open a new job file Save and open work files Undo and delete commands Field of view control commands Shortcut Menus [4 hrs.] **Drawing toolbar** Use the coordinate system in the drawing Draw straight lines Use the Polyline command Draw curves using the Polyline command Draw circles Draw arcs Draw Spline and Revision Cloud elements Draw ellipses Draw polygons Use the Sketch command Draw parallel lines, loops and points Draw rectangles Dynamic input of coordinates [8 hrs.] **Grid and Object Snap** Grid usage Grips control points Auto track Attraction Properties Object Snap Tracking property Geometry Calculator Quick Calculator Ortho mode

	Polar tracking Hatching [8 hrs.] **Modifying toolbar** Copy و Move Offset Polar Array Rectangular Array Path Array Mirror Extend Stretch Scale and Rotate Fillet Chamfer Trim Explode and Break Lines to Polylines Join [8 hrs.] **Draw ellipses and polygons** Use an ellipse command to draw ellipse and semi or part of ellipse , and use polygon command to draw any polygons. [4 hrs.] **Layers and text** Create Layers Layer properties control Control of layers using the Layers set Named Layer Filter [4 hrs.] **Dimensions** Continuous, Baseline Dimensions radius Jogged and Arc Length Editing Dimensions Dimension Styles: • Lines • Symbols and Arrows • Text • Leaders • Leaders • Multi leader Styles • Fit [4 hrs.] **Print**

	Plot Styles Create a Color Dependent Plot Style Set up the Color Dependent printing specification Create a Named Plot Style [4 hrs.] **Projection** Practice drawing projections using AutoCAD programs. [4 hrs.] **Isometric** Draw three dimension object by use iso snap command[8 hrs.] **Draw solids and simply three Dimensional shape** Draw 3D Modeling by use Solid command and rotate the object to look at him from multi angle. [4 hrs.]

Learning and Teaching Strategies
استراتيجيات التعلم والتعليم

Strategies	The student learns the skills of using the AutoCAD program from scratch until drawing horizontal plans and plans Where everything related to the program will be explained, including drawing commands, modification commands, coloring commands, annotation, writing, and layer creation The explanation will not be theoretical, but there will be a practical application for each of the commands in the laboratory in addition to the homework, as well as the student draws several projections to master the commands that he learned and put the necessary dimensions and clarifications, as well as drawing three-dimensional figures. At the end of the course, the student will be able to draw diagrams, projections, and models by himself, with knowledge of all the program commands. Thus, the student will also be able to draw any form of two-dimensional and three-dimensional geometry

Student Workload (SWL)
الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	63	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	87	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	6
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	**150**		

Module Evaluation

تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5 and 12	LO #1, #2 and #10, #11
	Assignments	1	5% (5)	13	LO #3, #4 and #6, #7
	Practical	1	15% (15)	Continuous	All
	Home work	1	15% (15)	Continuous	All
Summative assessment	Midterm Exam	2hr	15% (15)	8	LO #1 - #7
	Final Exam	3hr	40% (40)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	Introduction to AutoCAD programs.
Week 2	Drawing toolbar and Modifying toolbar
Week 3	Grid and Object Snap
Week 4	Drawing toolbar and Modifying toolbar
Week 5	Drawing toolbar and Modifying toolbar
Week 6	Drawing toolbar and Modifying toolbar
Week 7	Grid and Object Snap
Week 8	Draw ellipses and polygons
Week 9	Layers and text
Week 10	Dimensions
Week 11	Print
Week 12	Projection
Week 13	Isometric
Week 14	Isometric
Week 15	Draw solids and simply three Dimensional shape
Week 16	Preparatory week before the final Exam

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	AutoCAD 2020 Beginners Guide, ,7th Edition, CADFolks An Introduction to AutoCAD for Beginners	No
Recommended Texts		No
Websites	https://ketabton.com/index.php/book/13747	

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.