MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information		
معلومات المادة الدراسية		
Module Title	**Engineering Drawing**	**Module Delivery**
Module Type	B	☐ **Theory** ☒ **Lecture** ☒ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**
Module Code	UOMU0206014	
ECTS Credits	5	
SWL (hr/sem)	125	

Module Level		**Semester of Delivery**	
Administering Department	Fuel and Energy Techniques Engineering Department	**College**	Technical Engineering College- Al Mustaqbal university
Module Leader	Tamar Maitham Abdulwahabb	**e-mail**	Tamar.Maitham.Abdulwahabb@uomus.edu.iq
Module Leader's Acad. Title	lecturer Assistant	**Module Leader's Qualification**	M.Sc. Soil and water technologies
Module Tutor		**e-mail**	
Peer Reviewer Name	Younis Muhsin	**e-mail**	
Scientific Committee Approval Date		**Version Number**	1

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 Aims أهداف المادة الدراسية	1. This module describes the skills, knowledge, and attitude required to apply technical drawing. At the end of this module, learners will be able to Introduce technical drawings, apply principles of drawing, and project views. 2. to make the students know how to draw (Engineering Drawing) by using AUTOCAD program. 3. This course deals with the basic concept of Engineering Drawing. 4. Define the Engineering Drawing - The Tools used in Engineering Drawing - Types of drawing sheets, types of lines. 5.Learning 2D interface in AutoCAD. 6. Learning 3D interface in AutoCAD.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1- Define the Engineering Drawing - The Tools used in Engineering Drawing - Types of drawing sheets, types of lines 2-Introduction to AutoCAD and learning how to use the program interface 3-Learning how to use Draw toolbar and its content 4-Learning how to use modify toolbar and its content 5-Learning how to use dimension toolbar and its content and draw 2D exercises 6-Theory of projection, Theory of projection 1st angle 7-Theory of projection 3rd angle 7-Drawing the three projection views 8-Theory of Section and Drawing the three Section views 9-Learning 3D interface in AutoCAD and 3D tools, 3D exercises
Indicative Contents المحتويات الإرشادية	indicative contents include the following: Part A: The Purpose of Engineering Drawings

	An engineering drawing is a subcategory of technical drawings. The purpose is to convey all the information necessary for manufacturing a product or a part. Engineering drawings use standardized language and symbols. This makes understanding the drawings simple with little to no personal interpretation possibilities.
	Part B: understanding AutoCAD
	AutoCAD interface and Its usage like centers around drawing with electronic equivalents of real-life drafting tools. The added support of digital precision helps with measurements and calculations, 3D components, and data sharing.
	Part C: 2D Drawings
	Using lines to make 2D drawings, apply dimensions rules, design 2d shapes and drawing projections and sectioning views.
	Part D: 3D drawings
	3D CAD, or three-dimensional computer-aided design, is technology for design and technical documentation, which replaces manual drafting with an automated process.

Learning and Teaching Strategies	
استراتيجيات التعلم والتعليم	
Strategies	The main strategy that will be adopted in delivering this module is to courage students' participation in the exercises, while at the same time refining and expanding their critical thinking skills. This will be achieved through classes, interactive tutorials and by considering type of simple experiments involving some sampling activities that are interesting to the students. YouTube channel for the teacher includes lessons to help the students in their studying https://www.youtube.com/channel/UCiUmlY4CLQn5ycY4von1P5g

Student Workload (SWL)			
الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	59	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	61	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	120		

Module Evaluation					
تقييم المادة الدراسية					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5,10	LO #1,2,10 and 11
	Assignments	2	10% (10)	2,12	LO #3,4,6 and 7
	Projects / Lab.	1	10% (10)	continuous	
	Report	1	10% (10)	13	LO # 5,8 and 10
Summative assessment	Midterm Exam	3	10% (10)	7	LO # 1-7
	Final Exam	3	50% (50)	16	All
Total assessment			100% (100 marks)		

Delivery Plan (Weekly Lab. Syllabus)	
المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Define the Engineering Drawing - The Tools used in Engineering Drawing - Types of drawing sheets, types of lines
Week 2	Introduction to AutoCAD and learning how to use the program interface
Week 3	Learning how to use Draw toolbar and its content

Week 4	Learning how to use Draw toolbar and its content
Week 5	Learning how to use modify toolbar and its content
Week 6	Learning how to use dimension toolbar and its content and draw 2D exercises
Week 7	Theory of projection, Theory of projection 1st angle
Week 8	Find the 3rd project view from 2 views
Week 9	Theory of projection 3rd angle
Week 10	Drawing the three projection views
Week 11	Theory of Section
Week 12	Drawing the three Section views
Week 13	Learning 3D interface in AutoCAD
Week 14	3D tools, 3D exercises
Week 15	**Final Exam**

Learning and Teaching Resources		
مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	ملزمة الرسم الهندسي الخاصه بالكلية التقنية الهندسية بغداد/ قسم هندسة تقنيات المواد	yes
Recommended Texts	K. Venkata Reddy "Textbook of Engineering Drawing second edition" 2008	No
Websites	https://www.autodesk.com/	

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.