MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	**Engineering Drawing**			**Module Delivery**	
Module Type	**Basic**			☐ **Theory** ☐ **Lecture** ☒ **Lab** ☐ **Tutorial** ☒ **Practical** ☐ **Seminar**	
Module Code	**ENG114**				
ECTS Credits	**7**				
SWL (hr/sem)	**175**				
Module Level	UGI		**Semester of Delivery**	1	
Administering Department	CIV		**College**	ENG	
Module Leader	م.م محمد علي عزيز /م.م غازي جلال كعيشيش		**e-mail**	Mohammed.ali@uowa.edu.iq	
Module Leader's Acad. Title	مدرس مساعد		**Module Leader's Qualification**	ماجستير	
Module Tutor	م.م محمد علي عزيز /م.م غازي جلال كعيشيش		**e-mail**	Ghazi.alsady@uowa.edu.iq	
Peer Reviewer Name	Name		**e-mail**	E-mail	
Scientific Committee Approval Date	019/11/2023		**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	This course discusses the fundamental concepts of engineering graphics. It gives also an introduction to computer graphics using CAD software. The following topics are aimed to covered: 1- Drawing conventions such as standards, line types and dimensioning. 2- Drawing of inclined and curved surfaces. 3- Deducting the orthographic views from a pictorial. 4- Drawing full and half sections; deducting an orthographic view from given two views. 5- Pictorial sketching (isometric and oblique).
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. Recognize the value of engineering graphics as a language of communication. 2. Infer the nature of engineering graphics, the relationships between 2D and 3D environments. 3. Comprehend and deduce orthographic projections of an object. 4. Visualize wide variety of objects and drawing the missing views. 5. Comprehend and deduce section views. 6. Produce three dimensional drawings utilizing CAD software.
Indicative Contents المحتويات الإرشادية	• Identify Drawing Sheets. • Apply Drawing Scales. • Respect Drawing Lettering Standard Rules and Apply Dimension Rules. • Apply Drawing Conventional Representations Dimensioning and Standard Abbreviations.

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	1. ألقاء المحاضرات الحضورية والمناقشة في قاعة الدرس لا يصال المادة العلمية للطالب. 2. توجيه الأسئلة والاستفسارات المميزة بالعمق والدقة. 3. تنمية التعليم الذاتي من خلال استنتاج الحلول للمشكلات المطروحة. 4. حل الأمثلة الصفية وإعطاء الواجبات اللاصفية. 5. التمارين الميدانية داخل الجامعة لتطبيق التمارين النظرية. 6. أداء الاختبارات المحددة للمادة في الأوقات المحددة لها. 7. الاطلاع على المصادر والكتب التي يشير لها مدرس المادة.

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	6.2
Unstructured SWL (h/sem)	82	**Unstructured SWL (h/w)**	5.5

الحمل الدراسي غير المنتظم للطالب خلال الفصل		الحمل الدراسي غير المنتظم للطالب أسبوعيا	
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	175		

Module Evaluation
تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	**Quizzes**	2	10% (10)	5 , 10	LO #3, 4, 5 and 6
	Assignments	5	5% (5)	14	LO #3, 4,5,6 and 7
	Projects / Lab.	15	15% (15)	Continuous	All
	Online Assignments	1	10% (10)	Continuous	All
Summative assessment	**Midterm Exam**	2hr	20% (20)	7	LO #1 - 5
	Final Exam	3hr	40% (40)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)
المنهاج الاسبوعي النظري

	Material Covered
Week 1	Introduction and Instruments
Week 2	Kufic letters
Week 3	Principles of putting dimensions: Basic dimensions, the true dimensions, extension lines, lines of dimension
Week 4 to Week 6	Geometric construction: Draw an arc touches two intersecting lines, draw arc touches two brackets, draw an arc touches a straight and passes a point, draw an ellipse, draw a hexagon, draw the quinary, draw shape with eight faces, sketching inverted arc, identify points of contact.
Week 7 to 9	Projections: The theory of projection, the projection lines, oblique projection level, the vertical projection system,

	multiple projections, conclusion the third projected, draw curves and oblique surfaces on the projections
Week 10 to 11	Isometric: Projection by the first even angles, projection by the third even angles, draw circles on dimensional figure, draw oblique surfaces on dimensional figure, Isometric drawing and its application
Week 12 to 13	Sections: Introduction, types of sections and symmetrical sections, cutting lines, double sections, elevations sectioned, shapes sectioned
Week 14 to 15	CAD Drawing: Introduction to AutoCAD software, control page in AutoCAD software, types of coordinate, the command line and applications, the modified commands, the help orders in drawing, the commands circle, rectangle, offset, the command layers' array, scale and aligned, the command arc with all options, the command polyline with options, types of dimensions with application examples, the command text and its types, preparing and printing options with examples.

Learning and Teaching Resources
مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	الرسم الهندسي للمؤلف عبد الرسول الخفاف	نعم
Recommended Texts	Interpreting Engineering Drawings, Jensen, C.H. and Helsel, G.D., 7th ed., Thomson Delmar Learning, 2007	نعم

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.