DULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	**Engineering Drawing I**			**Module Delivery**	
Module Type	**Basic learning activities**			☒ **Theory** ☒ **Lecture** ☐ **Lab** ☐ **Tutorial** ☒**Practical** ☐ **Seminar**	
Module Code	**PRE105**				
ECTS Credits	**6**				
SWL (hr/sem)	**150**				
Module Level	1		**Semester of Delivery**	1	
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	1. the student teach basics of engineering drawing 2. Learn the engineering processes such as drawing the parallel and perpendicular lines, bisection of angles. 3. Drawing geometric shapes. 4. Draw the cycle and arc with different tangent. 5. Application the scale on the all objects. 6. Setting the dimensions 7. Conclusion the orthographic projection in the third angle. 8. three- dimension drawing using isometric method

Module Learning Outcomes **مخرجات التعلم للمادة الدراسية**	1. The student will be able on understand the concepts of basic engineering drawing with create and draw different geometric shapes with any arcs. 2. Deal with any scale in the sit 3. Read the maps and dimensions in the sites. 4. To imagine any solid and hollow something with the possibility of drawing it. 5. Converting 3- dimensional shapes into 2- dimensional with different view (top view, front view and side view)
Indicative Contents **المحتويات الإرشادية**	Indicative content includes the following. **Introduction to engineering drawing** Engineering drawings specify the requirements of a component or assembly which can be complicated. Standards provide rules for their specification and interpretation. Standardization also aids internationalization, because people from different countries who speak different languages can read the same engineering drawing, and interpret it the same way. [4 hrs.] **Drawing of letters and type of line and pens** Lettering in Engineering drawing is the process of writing titles, subtitles, symbols, dimension value, notes, and other elements on a drawing. Lettering is used to specify details of an object on a drawing. The lettering in engineering drawing holds a very important factor which determines the quality of an engineering drawing. All the information about an element on a drawing is always indicated the form of lettering A variety of line styles graphically represent physical objects. Types of lines include the following:(visible, hidden, center, cutting plane). [4 hrs.] **Planning of sheet and millimeters units** Before the starting engineering drawing should plan how going to make best use of the space, divide the sheet on tittle area and work area. It is important to think about the number of views drawing will have and how much space you will use of the paper [4 hrs.] **Engineering Processes** Use different method and different tools to draw the engineering processes such as drawing the parallel and perpendicular lines, bisection of angles . [4 hrs.] **Drawing of arcs** Before the drawing circle or arc must be determined the center point and radius, and on the arc must be now the start end tangent and type of tangent to can be draw the arc. [8 hrs.] **Geometric shapes (polygon and ellipse)** A polygon is a two-dimensional closed shape that is made by three or more line segments. Thus, polygons can be categorized on the basis of different criteria which are:(The number of sides, Angles, Measurement of sides and angles (Regular Polygons)) Ellipse draw by two methods: four center method and ray method. [4 hrs.] **Drawing scale** Mean it change the size of object by multiplying each of the lengths by scale factor to

	make it larger or smaller. [4 hrs.] **Dimensions** This are set according the drawing laws to give indicated on the engineering drawing to define the size characteristics such as length, height, breadth, diameter, radius, angle, etc. [4 hrs.] **Projections** Conclusion the orthographic projection in the third angle method, and Converting 3-dimensional shapes into 2- dimensional with different view (top view, front view and side view). [12 hrs.] **Isometric drawing** Isometric drawing is particular drawing style where the angle between the X, Y and Z axes are all 120', and there is no perspective. An Isometric drawing is pictorial representation of on object in which all three dimension. [12 hrs.]

Learning and Teaching Strategies
استراتيجيات التعلم والتعليم

Strategies	After explain in the lecture the concepts of basic rules drawing engineering in class the student will able to solve some problems in the class with discuss the difficulties and problems that faced him and then he solve other problems in the home thus, the student becomes familiar with each topic separately. By the end of the semester the student will be familiar with all the rules of engineering drawing and translating maps for various engineering projection. Development the imagine for a solid and hollow something with the possibility of drawing it, and Converting shapes from 3-dimensional into 2- dimensional with different view.

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)	6 and 11	LO #1, #2 and #10, #11
	Assignments	1	5% (5)	12	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 engineering drawing, engineering drawing define and tools using
Week 2	Drawing of letters and type of line and pens
Week 3	Planning of sheet and millimeters units
Week 4	Engineering Processes
Week 5	Drawing of arcs
Week 6	Drawing of arcs and exam
Week 7	Geometric shapes (polygon and ellipse)
Week 8	Drawing scale Midterm Exam
Week 9	Dimensions
Week 10	Projections
Week 11	Projections and exam
Week 12	Projections
Week 13	Isometric
Week 14	Isometric

Week 15	Isometric
Week 16	Preparatory week before the final Exam

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	Engineering drawing and graphic technology Handbook, Thoumas,14 th edition (2010).	Yes
Recommended Texts		No
Websites	https://books.google.iq/books/about/Engineering_drawing_and_graphic_technolo.html?!d=mch-GSLgWKkC&redir_esc=y	

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.