

استمارة وصف البرنامج الأكاديمي للكليات والمعاهد للعام الدراسي

الجامعة : جامعة شط العرب الاهلية
الكلية /المعهد : التقنية الهندسية
القسم العلمي : هندسة تقنيات الحاسوب
تاريخ ملء الملف : 2026 /7/6



التوقيع :

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التاريخ :



التوقيع

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التاريخ :



دقق الملف من قبل

شعبة ضمان الجودة والأداء الجامعي

اسم مدير شعبة ضمان الجودة والأداء الجامعي:

التاريخ / /

التوقيع

الصفحة 1

MODULE DESCRIPTION FORM

Module Information				
معلومات المادة الدراسية				
Module Title	CAD Drawing			Module Delivery
Module Type	Support or related learning activity			☒ Theory ☒ Lecture ☒ Lab ☒ Tutorial ☒ Practical ☐ Seminar
Module Code	ATU12016			
ECTS Credits	7			
SWL (hr/sem)	175			
Module Level	1	Semester of Delivery	1	
Administering Department	ATU12016	College	PMTE	
Module Leader			e-mail	
Module Leader's Acad. Title	Assistant teacher		Module Leader's Qualification	Master
Module Tutor	None		e-mail	
Peer Reviewer Name	None		e-mail	
Scientific Committee Approval Date	01/06/2023		Version Number	1

نموذج وصف المادة الدراسية

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. This course deals with identifying engineering drawing tools and materials, methods of using them, performing manual exercises, drawing lines, curves, and two- and three-dimensional shapes. Thus, developing the student's potential to study and apply the basics of engineering drawing. Which includes reading, disassembling and assembling geometric shapes through drawing, projection, and sections methods. In addition to how to draw engineering mechanical plans necessary to clarify design ideas. 2. Also, To learn the student the basic principles and theories of engineering drawing and how to implement different sketches by using computer programs such as (AUTOCAD).
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. Knowing the tools used in engineering drawing and how to use them properly. 2. The student's ability to understand and apply the basics of engineering. 3. Reading, disassembling, and assembling geometric shapes through drawing. 4. Developing the student's skill in using tools in drawing geometric shapes. 5. Developing the student's engineering imagination through deducing the projections and sections of each geometric solid and realizing its dimensions. 6. Developing student skills using AutoCAD drawing software. 7. Conducting auxiliary exercises to apply it correctly to increase its absorption capacity of the material. 8. Communicate with the most important ideas presented by the article through the Internet. 9. Developing student skills using AutoCAD drawing software. 10. Going to implement an engineering design with all its recognized requirements in the field of work, which reflect skills through designing engineering plans that meet the details and dimensions that can be implemented. 11. Applications to various engineering processes. 12. Auxiliary exercises that the student presents by applying and delivering them as a participatory work to increase his ability to absorb the material
Indicative Contents المحتويات الإرشادية	1- Introduction to the subject: basics of engineering drawing and the difference between it and free drawing: Engineering drawing, its elements, tools and drawing methods. 2- Introducing students to paper scales and drawing boards, and Free hand drawing (lines, circles, ...etc) 3- Distribute the canvas (frame, table, etc.), Types of lines in engineering drawing, Rules for writing dimensions and measurements and recognizing symbols and their

	significance, Drawing scales (zoom in and zoom out) 4- Construction and engineering operations: Create and divide angles, Divide circles and draw regular shapes in them. Create connecting lines between arcs and circles. 5- Drawing engineering perspectives, Types of engineering perspectives and its construction from projections. Perspective constructions (drawing 3D solids (isometric perspective) 6- Projection in orthogonal planes, vertical projection methods, Drop geometric shapes. 7- Distribution of projections on the drawing board, Conclusion of the third projection from two projections. 8- Inferring the isometric perspective from projections with dimensions 9- Single simple and complex geometric objects 10- Sectors in engineering drawing, their importance, Cutting, sector, and hatching levels, Types of sectors and their classification
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Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	Planning a unit or lesson involves a number of instructional decisions. The teacher must identify the following: the content and processes to be addressed, the strengths, needs, and interests of students, the Common Essential Learnings that could be incorporated, and the most effective instructional approaches. Such decisions are critical and must be made consciously and purposefully. It begins with the student's interest in engineering tools and the drawing board. To reach the highest level of understanding in the application of all theoretical and laboratory lesson processes.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	120	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	7
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	55	Unstructured SWL (h/w) 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 and 10	LO #1, #2 and #10, #11
	Assignments	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects / Lab.	0	0%		
	Report	1	10% (10)	13	LO #5, #8 and #10
Summative assessment	Midterm Exam	2hr	20% (20)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	Explanation of the vision and mission of the college, and the objectives and outcomes of learning the subject.
Week 2	Introduction to the subject: basics of engineering drawing and the difference between it and free drawing: Engineering drawing, its elements, tools and drawing methods. Introducing students to paper scales and drawing boards. Free hand drawing (lines, circles, ...etc)
Week 3	Distribute the canvas (frame, table, etc.) Types of lines in engineering drawing Rules for writing dimensions and measurements and recognizing symbols and their significance. Drawing scales (zoom in and zoom out)
Week 4	Construction and engineering operations: Create and divide angles, Divide circles and draw regular shapes in them. Create connecting lines between arcs and circles
Week 5	Drawing engineering perspectives, Types of engineering perspectives and its construction from projections.
Week 6	Perspective constructions (drawing 3D solids (isometric perspective).
Week 7	Projection in orthogonal planes, vertical projection methods, Drop geometric shapes
Week 8	Distribution of projections on the drawing board, Conclusion of the third projection from two projections
Week 9	Inferring the isometric perspective from projections with dimensions.
Week 10	Single simple geometric objects.
Week 11	Review on the above: Mid exam
Week 12	Single complex geometric objects.
Week 13	Sectors in engineering drawing, their importance, Cutting, sector, and hatching levels Types of sectors and their classification
Week 14	Learn about drawings in all their parts and how to draw them
Week 15	Review on the above:
Week 16	Preparatory week before the final Exam

Delivery Plan (Weekly Lab. Syllabus)			
المناهج الاسبوعي للمختبر			
Material Covered			
Learning and Teaching Resources			
مصادر التعلم والتدريس			
	acquaintance	Text	Available in the Library?
Required Texts		Chapter 1 deals with the formation of transparencies, elements and reduction, units of measurement, and dealing with them.	
Recommended Texts		Chapter 2 is to get acquainted with the drawing commands contained within the "Main" menu.	
Websites		Chapter 3 deals with precision drawing and drawing aids such as Grid, Command Line, and Snap.	
		Chapter 4 deals with drawing modification such as the delete, move, mirror, matrix, rinse, and stretch commands.	
Week 6&7		Chapter 5 deals with adding dimensions in terms of dimension components and their signs.	
Week 8&9		The sixth chapter deals with writing and publicizing, while the seventh chapter deals with blocks, descriptions, controlling their specifications, and how they are formed, included, and modified.	
Week 10&11&12		Chapter 8 deals with 3D drawing. It shows how to create the new "mesh objects", use the coordinate system, divide the screen into different scenes, and use commands such as "RevSurf" "TabSurf" "rulesurf".	
Week 13&14		The ninth chapter deals with "inanimate objects," how they are created, and the operations of addition and subtraction that are performed on them.	

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.