

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	COE115		
ECTS Credits	٤		
SWL (hr/sem)	١٠٠		
Module Level		Semester (s) offered	
Administering Department	Artificial Intelligence	College	College of Engineering
Module Leader	Rasha ahmad atfah		e-mail
			Rasha.atfah@alayen.edu.iq
Module Leader's Acad. Title	Lecture	Module Leader's Qualification	Ph.D
Module Tutor	Abbas Hameed	e-mail	Abbashmeed99@gmail.com
Peer Reviewer Name	Hasnaa M.Elarwash	e-mail	Hasnaa.Mohammad@alayen.edu.iq
Review Committee Approval		Version Number	1.0



د. ٢٠١٠
 محمد كاظم زبيح

Relation With Other Modules

العلاقة مع المواد الدراسية الأخرى

Prerequisite module	None	Semester	
Co-requisites module	None	Semester	

Module Aims, Learning Outcomes, Indicative Contents and Brief Description

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية مع وصف مختصر

Module Aims أهداف المادة الدراسية	This course deals with the basic concept of engineering drawing Understanding of concepts, tools and methods of engineering drawing To understand concept of descriptive geometry To provide participants with basic theoretical and practical skills to produce engineering drawings with the aid of AutoCAD Introduce students to AutoCAD software requirements To introduce the students, the techniques constructing the various types of polygons, curves and scales		
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	Knowledge	A2	A2.1: Understanding concepts of engineering drawing tools and modifiers. A2.2: Summarizing every thing about drawing skills Reading the plans and drafting. A2.3: Explain the principles of drawing with the aid of AutoCAD A2.4: Explain the application of measurement, text, layout and modeling which are relevant to Laser Engineering.
		B1	B1.1 Function efficiently as an individual B1.2 Function as a member of multidisciplinary and multicultural teams
		B2	B2.1 Communicate effectively – graphically with a range of audiences using contemporary tools. B2.2 Communicate verbally and in writing with a range of audiences using contemporary tools.
		C2	C2.1 Recognize professional and ethical responsibility. C2.2 Adhere and respect diversity.
	Ethics		
المحتويات الإرشادية	- Overview of AutoCAD's capabilities and common applications in engineering and design - AutoCAD User Interface - Toolbars, ribbons, command line, mouse functions, and methods of command issuance - Drawing Setup - Units, limits, snap and grid settings, object snaps (OSNAP), and drawing templates - Layers and Layer Management - Creating, naming, coloring, and controlling the visibility and behavior of		

layers

- Drawing Basic Shapes
- Using drawing commands: line, circle, rectangle, arc, polygon, ellipse, etc.
- Modifying Drawing Elements
- Modify commands: move, copy, trim, extend, mirror, offset, scale, rotate
- Object Properties
- Changing color, layer, line type, line weight, and using the Match Properties tool
- Annotation Tools

Adding and editing text, dimensions, multileader, and hatching

Course Description	The objective of this course is to provide students with a solid foundation in engineering drawing using AutoCAD software. It aims to develop students' ability to create accurate two-dimensional technical drawings in accordance with international drawing standards. The course focuses on enhancing spatial visualization skills and understanding of geometric constructions and projections. Students will learn to apply AutoCAD tools efficiently for producing professional architectural and engineering drawings. By the end of the course, students will be able to translate design concepts into precise digital drawings suitable for academic and professional use.
Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	• Presentation • Interactive learning • Discussions • Brainstorming • Group Solving Problems • Problem-Based Learning - Self-learning

Student Workload (SWL)

الحمل الدراسي للطالب

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	63	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعياً	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	62	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعياً	3.8
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	100		

Module Evaluation

تقييم المادة الدراسية

		Time (hr)	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5 and 10	A2
	Interaction within the class	All	10% (10)	All	A2
	Assignments	6	10% (10)	1,2,3,5,6,8	A2, B1
	Home Work	6	10% (10)	2,3,4,6,8,9	A2, B1, C2
Summative assessment	Midterm Exam	1	10% (10)	7	A2,B1
	Final Exam	1	50% (50)	15	A2
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Lab. Syllabus)		
	Material Covered	LOs
Week 1	Course Description and Introduction to engineering drawing Instruments and Accessories	A2, B1, B2, C1
Week 2	Lines, Dimensions, Scale: Explaining and Practicing	A2, B1, B2, C2
Week 3	Lines, Dimensions, Scale: Further Practicing on different types of lines and their application	A2, B1, B2, C1
Week 4	Geometrical Shapes and related Calculations: Explaining and Practicing (Basic geometrical shapes)	A2, B1, B2, C1
Week 5	Geometrical Shapes and related Calculations: Further Practicing on different types of lines and their application (advanced geometrical shapes)	A2, B1, B2, C1
Week 6	Geometrical Shapes and related Calculations: Further Practicing on different types of geometrical shapes and their application in engineering design drawing	A2, B1, B2, C2
Week 7	Projections: Theoretical concept	A2, B1, B2, C1
Week 8	Projection: Shapes and Standards for drawing projections	A2, B1, B2, C1
Week 9	Projections: application of lines, scales, and shapes in projections	A2, B1, B2, C1
Week 10	Projections: application of lines, scales, and shapes in projections (practice)	A2, B1, B2, C1
Week 11	Projection: Application of Cross-section	A2, B1, B2, C1
Week 12-13	Isometric drawing: Theoretical concept	A2
Week 14	Isometric drawing: application of lines, shapes, and scales in engineering designs	A2
Week15	Review for the concepts applied in engineering drawing design	A2

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Madsen, D. A., & Madsen, D. P. (2012). Engineering Drawing & Design (5th ed.). Cengage Learning.	No
Recommended Texts	– Al-Khaffaf, A. A. (1990). Engineering drawing (2nd ed.). University of Technology Press.	No
Websites	https://eng.alayen.edu.iq/colleges/e/42	

APPENDIX:

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:

NB 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.

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