

	Model Unit Description Subject Description Form Faculty of Engineering / Department of Biomedical	
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Module Information

Module Title	Engineering Drawing I		Module Delivery		
Module Type	Basic learning		☒ Theory ☐ Lecture ☒ Lab ☐ Tutorial ☐ Practical ☐ Seminar		
Module Code	ENG- 102				
ECTS Credits	5				
SWL (hr/sem)	125				
Module Level		1			Semester of Delivery
Administering Department		Biomedical engineering	College	Engineering College	
Module Leader	Assist. Lec: Mustafa Habeeb Chyad		e-mail	mustafa.ha@uowa.edu.iq	
Module Leader's Acad. Title		Asst. Lecturer	Module Leader's Qualification		master
Module Tutor			e-mail		
Peer Reviewer Name		Name	e-mail		
Scientific Committee Approval Date		2/1/2026	Version Number	1.0	

Relation with other Modules

Prerequisite module	None	Semester	
Co-requisites module	None	Semester	

Module Aims, Learning Outcomes and Indicative Contents	
Module Aims	1. Expanding the mental ability to visualize geometric shapes. 2. Regulating the practical aspects of the course through laboratory sessions. 3. Introducing students to engineering designs and their importance in product manufacturing. 4. Introducing students to the fundamentals of engineering drawing to enable them to understand the elements of 3D visualization. 5. Introducing students to technical drawing techniques so that design ideas can be communicated and produced. 6. Introducing students to the visual and written standard requirements related to industry. 7. Understanding and interpreting any form of engineering drawings. 8. Drawing an object from different perspective views.
Module Learning Outcomes	Learning Outcomes 1 1. (Knowledge) An ability to identify, formulate, and solve engineering problems by applying principles of engineering, science, and mathematics. Learning Outcomes 2 2. (Knowledge) An ability to apply engineering design process to produce solutions that meet specified needs with consideration of public health, safety, and global, cultural, social, environmental, economic, and other factors as appropriate to the discipline.
Indicative Contents	The instructional content includes the following: 1. Part A – Introduction to drawing styles, lines and line types, paper types, and drawing tools. 2. Part B – Drawing techniques: selection of drawing sheets, freehand drawing, and instrument drawing. 3. Part C – Engineering operations and 2D drawing applications. 4. Part D – Projection techniques and applications of orthographic projection. 5. Part E – 3D drawing methods and practices: views and isometric drawing.
Learning and Teaching Strategies	
Strategies	• Speed and accuracy in decision-making.

	• Providing a detailed explanation in class on the subject. • Providing sufficient illustrative drawings on the board with the aid of a projector. • Making lecture sessions interactive and integrating them with practical activities. • Educational websites. • Assigning in-class activities to students during the lecture period. • Assigning homework at the end of each lecture.
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Student Workload (SWL)			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	78	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعياً	5
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	72	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعياً	5
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	125		

Module Evaluation					
		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	2hr	10% (10)	7	LO # 1-7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)	
	Material Covered
Week 1	Introduction to Engineering Drawing and Required Tools
Week 2 Week 3	Types of Lines, Geometric Shapes and Their Characteristics Preparing the Drawing Board, How to Begin Engineering Drawing
Week 4	Geometric Operations - 1
Week 5	Geometric Operations – 2
Week 6	Geometric Operations - 3
Week 7 Week 8 Week 9	Comprehensive Exercises on Geometric Operations Projection Theory Projections Projections - 2
Week 10 Week 11 Week 12	Dimensions Additional Exercises
Week 13 Week 14 Week 15	Intersecting Projections - 1 Intersecting Projections - 2 Solid Drawing
Week 16	Comprehensive Exercises on Geometric Operations

Learning and Teaching Resources		
مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	الرسم الهندسي عبد الرسول الخفاف	
Recommended Texts		
Websites		

Grading Scheme مخطط الدرجات				
Group	Grade		Marks (%)	Definition
Success Group (50 - 100)	A - Excellent		90 - 100	Outstanding Performance
	B - Very Good		80 - 89	Above average with some errors
	C - Good		70 - 79	Sound work with notable errors
	D - Satisfactory		60 - 69	Fair but with major shortcomings
	E - Sufficient		50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail		(45-49)	More work required but credit awarded
	F – Fail		(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.				



Head of the Department

Dr. Osama Abdulbari



أ.م.د. حسين هادي حسين
عميد كلية الهندسة
العميد



أ.م.د. هادي حسين