

**MODULE DESCRIPTION FORM**

نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Mathematics II	Module Delivery	
Module Type	B	<input checked="" type="checkbox"/> Theory Lecture <input type="checkbox"/> Lab <input type="checkbox"/> Tutorial <input type="checkbox"/> Practical <input checked="" type="checkbox"/> Seminar	
Module Code	UOMU0104025		
ECTS Credits	2		
SWL (hr/sem)	50		
Module Level	UGx11 1		
Administering Department	Architecture Engineering	College	Al-Mustaqbal University
Module Leader	Name : Inas Reda Ali	e-mail	E-mail inas.ridha@uomus.edu.iq
Module Leader's Acad. Title	Lect. Dr.	Module Leader's Qualification	Ph.D.
Module Tutor	Name (if available)	e-mail	E-mail
Peer Reviewer Name	Name	e-mail	E-mail
Scientific Committee Approval Date	11/03/2026	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 Aims أهداف المادة الدراسية	It is to give the student a general idea of mathematics as basic principles for a student in the College of Engineering, with the addition of some engineering applications that benefit the architecture student in his advanced stages
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	.A1- Studying the Cartesian axes and the basics of analytical geometry ( .A 2- Learn a set of ways to draw functions using different techniques A3 - Using the concept of purpose, approximation, and approximation in consolidating and understanding the concept of mathematical .differentiation A 4- Using the concept of purpose to explain the concept of .differentiation and derivatives A5 - Application of quantitative and numerical methods for the purpose of solving engineering problems

Indicative Contents المحتويات الإرشادية	<ol style="list-style-type: none"> <li>1. Conic sections (4hr)</li> <li>2. Introduction of Integration (2hr)</li> <li>3. Integration of ordinary functions (2hr)</li> <li>4. indefinite integrations (2hr)</li> <li>5. Definite integrations (2hr)</li> <li>6. Transcendental functions (logarithm and exponential functions : derivatives and graphs (6hr)</li> <li>7. Applications of integration (4hr)</li> <li>8. Techniques of integration (6hr)</li> <li>9. Overview (2hr)</li> </ol>
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Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	Type something like: The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises, while at the same time refining and expanding their critical thinking skills. This will be achieved through classes, interactive tutorials and by considering type of simple experiments involving some sampling activities that are interesting to the students.

Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	33	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	2.2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	17	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	1.4
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	50		

Module Evaluation تقييم المادة الدراسية					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	.5	10% (5)	5, 10	LO #1, 2, 10 and 11
	Assignments	2	10% (10)	2, 12	LO # 3, 4, 6 and 7
	Projects / Lab.				
	Report	1	10% (10)	13	LO # 5, 8 and 10
Summative assessment	Midterm Exam	2 hr	10% (25)	7	LO # 1-7
	Final Exam	2hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الأسبوعي النظري	
	Material Covered

Week 1	Conic sections
Week 2	Conic sections
Week 3	Introduction of Integration
Week 4	Integration of ordinary functions
Week 5	indefinite integrations
Week 6	Definite integrations
Week 7	Transcendental functions (logarithm and exponential functions : derivatives and graphs
Week 8	Transcendental functions (logarithm and exponential functions : derivatives and graphs
Week 9	Transcendental functions (logarithm and exponential functions : derivatives and graphs
Week 10	Applications of integration
Week 11	Applications of integration
Week 12	Techniques of integration
Week 13	Techniques of integration
Week 14	Techniques of integration
Week 15	Overview

#### Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

	Material Covered
Week 1	Lab 1: Introduction to Agilent VEE and PSPICE
Week 2	Lab 2: Thévenin's / Norton's Theorem and Kirchhoff's Laws
Week 3	Lab 3: First-Order Transient Responses
Week 4	Lab 4: Second-Order Transient Responses
Week 5	Lab 5: Frequency Response of RC Circuits
Week 6	Lab 6: Frequency Response of RLC Circuits
Week 7	Lab 7: Filters

#### Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Fundamentals of Electric Circuits, C.K. Alexander and M.N.O Sadiku, McGraw-Hill Education	Yes
Recommended Texts	DC Electrical Circuit Analysis: A Practical Approach Copyright Year: 2020, dissidents.	No
Websites	<a href="https://www.coursera.org/browse/physical-science-and-engineering/electrical-engineering">https://www.coursera.org/browse/physical-science-and-engineering/electrical-engineering</a>	

**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.