Calculus 1 DESCRIPTION FORM

نموذج وصف حساب التفاضل والتكامل1

<table>
<tr>
<td colspan="4" align="center">Module Information
معلومات المادة الدراسية</td>
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<tr>
<td>Module Title</td>
<td colspan="2" align="center">Mathematics</td>
<td>Module Delivery</td>
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<tr>
<td>Module Type</td>
<td colspan="2" align="center">Support</td>
<td rowspan="4">
• ☒ Theory
• ☒ Lecture
• ☐   Lab
• ☒ Tutorial
• ☐ Practical
• ☒ Seminar
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<tr>
<td>Module Code</td>
<td colspan="2" align="center">UOMU038025</td>
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<tr>
<td>ECTS Credits</td>
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<tr>
<td>SWL (hr/sem)</td>
<td colspan="2" align="center">60</td>
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<tr>
<td>Module Level</td>
<td></td>
<td>Semester of Delivery</td>
<td>1</td>
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<tr>
<td>Administering Department</td>
<td>Forensic Science</td>
<td>College</td>
<td>College of science</td>
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<tr>
<td>Module Leader</td>
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<tr>
<td>Module Leader's Acad. Title</td>
<td>Asst.Lecturer</td>
<td>Module Leader's Qualification</td>
<td>MS.c</td>
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<tr>
<td>Module Tutor</td>
<td>Name (if available)</td>
<td>e-mail</td>
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Peer Reviewer Name	ame	**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 Aims أهداف المادة الدراسية	1. Introducing students to the general basic concepts related to mathematical thinking 2. Developing the analytical and computational skills of the students 3. Focus on developing their mathematical skills by listing a group of important mathematical identities
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. **Introducing the student to a different mathematical topics** 2. **Learn how to use mathematical thinking in different problems** 3. **Focusing on giving the student a sufficient amount of important arithmetic examples through using scientific calculators**

	4. Introducing students to the types mathematical systems(RAD & DEG)
Indicative Contents المحتويات الإرشادية	Indicative content includes the following. ● **Algebra (particularly logarithms and indices)** ● **How to draw graphs (particularly of phenomenon encountered in television)** ● **Trigonometry** ● **Functions (particularly periodic)** ● **Vector and scalar properties** ● **Simple differentiation (and where encountered in science)** ● **Introduction to matrices**

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	**The main strategy that will be adopted in introducing this unit is to encourage students to participate in solving homework exercises, while improving and expanding their critical thinking skills. This will be achieved through classes and interactive tutorials and by thinking about the type of simple experiments that include some sampling activities that are of interest to the students.**

Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	30	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	2
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	30	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	2

Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	60

Module Evaluation تقييم المادة الدراسية					
		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 /	1	10% (10)	Continuous	
	Report	1	10% (10)	13	LO # 5, 8 and 10
Consummative assessment	**Midterm Exam**	2 hr	10% (10)	7	LO # 1-7
	Final Exam	2hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)	
المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Derivatives:polynomials
Week 2	Trigonometric functions
Week 3	Derivatives of Trigonometric functions
Week 4	Exponential function, logarithims and constant powers
Week 5	Applications of derivatives
Week 6	Applications of derivatives
Week 7	Definition of integrations and some examples
Week 8	Polynomials integrations
Week 9	Integrations techniques
Week 10	Integrations techniques
Week 11	Integrations techniques
Week 12	Trigonometric functions integrations
Week 13	Some Applications of integrations
Week 14	Some Applications of integrations

Learning and Teaching Resources		
مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	Calculus and Analytic Geometry Thomas International edition	yes
Recommended Texts	Schaumu's series	yes