



جامعة المجمعة
Majmaah University

وكالة الجامعة للشؤون التعليمية
إدارة البرامج الدراسية والتطوير

نموذج (5)

مختصر توصيف المقرر

(Course Syllabus)

Course) *		معلومات المقرر
(Information		
اسم المقرر:	حساب التفاضل والتكامل 1	
رقم المقرر:	MATH 101	
اسم ورقم المتطلب السابق:	لا يوجد	
اسم ورقم المتطلب المرافق:	لا يوجد	
مستوى المقرر:	الثالث	
الساعات المعتمدة:	3	
Module Title:	Calculus 1	
Module ID:	MATH- 101	
Prerequisite (Co-requisite) :	-	
Co-requisite :	-	
Course Level:	th Level3	
Credit Hours:	3	
Module Description		وصف المقرر:
<p>numbers and real lines – Inequalities – Functions – The graph of a function – Even and odd functions – Composite of Functions – Trigonometric Functions – Inverse Functions – Inverse Trigonometric Functions – Limits – Properties of Limits – Techniques for evaluating Limits – Limits at infinity – Continuity – Properties of Continuity – Differentiation – The Relationship between Differentiation and Continuity – Differentiation Laws – Derivative of Trigonometric and Inverse Trigonometric Functions – Derivative of Hyperbolic and Inverse Hyperbolic Functions –Logarithmic and Exponential Functions and their derivatives – Using the first derivative test to study an increasing or decreasing function – Chain Rule's Implicit Differentiation – L'Hospital's Rule - Rolle's Role and the Mean Value Theorems - Using Differentiation to studying concavity of functions and studying applications of Differentiation. Optimization.</p>		
Module Aims		أهداف المقرر:
<p>Obtain a knowledge of a line of the real numbers and how to solve an Inequality.</p> <p>Obtain the knowledge of the function of one variable and studying its properties and kinds, also how to draw the curve of the function</p> <p>Obtain knowledge of how to find limit of the function and studying its Continuity.</p> <p>From this course the student can find the derivative of the function and studying the relationship between Differentiation and Continuity</p> <p>Obtain knowledge of finding the tangent of the curve and the maximum and minimum values of a function.</p> <p>Obtain a knowledge of how the function increased and decreased and how to draw the shape of the curve. Identify the quantity to be optimized and the constraint and solving it.</p>		
outcomes		مخرجات التعليم: course



- Have the knowledge of the function and its properties and its different kinds.
- Have knowledge of how to find the limit of a function and studying its continuity.
- Have a knowledge of the derivative of a function and derivatives of different types of functions
- Have knowledge of finding the equation of tangent and normal of a curve and the maximum and minimum values of the function.
- Learning curve sketching
- - Identify the quantity to be optimized and the constraint and solving it.

محتوى المقرر

ساعات التدريس	عدد الأسابيع	قائمة الموضوعات
4	1	الأعداد الحقيقية
8	2	الدوال
8	2	النهايات
4	1	الإتصال
16	4	الإشتقاق
16	4	تطبيقات الإشتقاق

الكتاب المقرر والمراجع المساندة:

الرقم الدولي ISBN	سنة النشر	اسم الناشر	اسم المؤلف	
9780071316576	2012	Mc Graw Hill	Smith/Minton	Calculus
538-49857-8--0 13:978 538-49867-6--0 0:978	2011	Cengage learning	James Stewart	Single Variat Calculus : Early Trans seventh edit
	2010	Mc Graw Hill	ج.أ. فريدي ترجمه أ.د. أحمد صادق الكرماني أ.د. رمضان جهينه	باب التفاضل و التكامل
	2013	Mc Graw Hill	ملخصات ايزي شوم مندلسون و اخرون	التفاضل و التكامل

