

Jerash University
Faculty of Science
Department of Science

Course Information	
Course Title	Calculus I
Course Number	303101
Prerequisites	
Course Website	
Instructor	
Office Location	
Office Phone	
Office Hours	
E-mail	
Course Description	
<p>This course covers the following topics: Functions , an introduction to analytic geometry , limits and continuity application of differentiation , and brief introduction to integration.</p>	

Text Book	
Title	<i>calculus</i>
Author(s)	<i>Salas and Hille's or Anton</i>
Publisher	
Year	
Edition	
Book Website	
References	

Assessment Policy		
Assessment Type	Expected Due Date	Weight
First Exam	First Exam:	20%
Second Exam	Second Exam:	20%
Final Exam	To be announced by the department.	50%
Over all		100%

Course Objectives
1.
2.
3.
4.

Useful Resources

- 1- Library Books.
- 2- Internet.

Course Content

Week	Topics	Chapter in Text (handouts)
1,2,3	Pre-calculus, Numbers, Intervals, Inequalities , Functions (domain and graph), trigonometric	Ch. 1
4,5,6	Limits and continuity :An introduction to Limits. Calculating Limits using the limit laws. Limits Involving (sin x)/x. Continuous Functions.	Ch 2
7,8,9	The Deveratives : Differentiation Rules and Higher Deveratives. Deveratives of trigonometric functions. The Chain Rule .Implicit Differentiation . Tangent Line	Ch 3
10,11, 12	Applications of Differentiation: L'Hospital's Rule. Rolle's Theorem. MeanValue Theorem. Analysis of Functions: Increase ,Decrease and Concavity. Relative Extrema ; Graphing Polynomials . Absolute Maxima and Minima. Graph of Functions.	Ch 4
13,14,15	Integration :Antiderivatives , Indefinite Integral. Integration by Substitution. The Definite integral The Fundamental Theorem of Calculus. Area between two curves	Ch 5
16	Logarithmic and Exponential : Derivatives and integral.	Ch 6

تعليمات إضافية

الغش	الغش مخالف لقواعد وقوانين الجامعة لذلك ستعرض نفسك للعقوبات حسب قوانين الجامعة إن حاولت الغش.
حضور المحاضرات	حضور المحاضرات أمر أساسي وإذا وصل غيابك عن محاضرات المادة إلى 15% من المجموع الكلي للمحاضرات ستحرم من المادة تبعاً لقوانين الجامعة