

Flow up of implementation celli pass play

Course Instructor	IMAN MOHAMMAD NAMMA				
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Title	M. S. c				
Course Coordinator	Course 1				
Course Objective	enable students to acquire knowledge and understanding in advanced mathematics				
Course Description	The vectors, partial derivative The Directional derivatives and gradients. Multiple integration The differential equation, Laplace equation , Series Solutions				
Textbook	Advanced Engineering Mathematics. Calculus 7				
Course Assessments	Term Tests	Laboratory	Quizzes	Project	Final Exam
	35%		5%		60%
General Notes					

Republic of Iraq
The Ministry Of Higher Education
& Scientific Research



University: Diyala
College:
Department:
Stage:
Lecturer name:
Qualification:
Place of work: University of Diyala

Course Weekly Outline

Week	Date	Topes Covered	Lab. Experiment Assignments	Notes
1	4-10-2016	Introduction of the vectors, dot product, application of dot product, vector projection & Scalar component		
2	11-10-2016	Line in the plane & distance from points to line, cross product, The cross product of two vectors in space		
3	18-10-2016	Equation for lines, equation for line segment and equation for plane in space.	تعطل الدوام بمناسبة اربعينية الحسين عليه السلام	
4	25-10-2016	The distance between the point and plane, angle between planes, lines of intersection		
5	1-11-2016	The triple scalar (box) product, the volume of tetrahedron		
6	8-11-2016	Term test		
7	9-11-2016	Partial Derivative: Higher order derivative, Chain rule for partial derivative, The total differentiation		
8	15-12-2016	Second order Partial Derivative. The directional Derivative,		
9	22-12-2016	gradient vector, properties of directional Derivative tangent planes & normal lines for the surface		
11	29-12-2016	Absolute maximum and minimum on closed bounded region,		
11	6-12-2016	Term test		
12	7-12-2016	Multiple Integrals: double Integrals		
13	13-12-2016	The coordinate system, Cartesian vs. polar equation, double Integrals in polar coordinates form		
14	20-1-2017	Area by double Integrals, volume by double Integrals		
15	27-1-2017	Triple integrals, Cylindrical and spherical coordinates, Triple integrals in cylindrical and Spherical coordinates		
16	2-12-2017			Term test

Half – year break				
17		Differential equations: - linear differential equations 1- first order linear equation: a-Separable equations		
18		b- Homogeneous equations c-Exact equations		
19		d-Linear equations e- Bernoulli's equations -linear differential equations:		
21		2-Second order linear equation: a-reducible to first order linear equation		
21		b- Second order homogenous linear c -- Second order non -homogenous linear		
22		Higher order differential equations: a- homogenous b-non homogenous		Term test
23		Laplace Transforms: Definitions. Properties. Inverse Laplace transforms. Solving initial value problems.		
24		Special functions: Heavy side unit step function. Convolution theorem. System of Linear		
25		Application of Linear Algebra. Homogeneous linear systems.		
26		Non-homogeneous linear systems. Solving systems by Laplace transforms.		Term test
27		Series Solutions: Cauchy-Euler equation method. Solutions about ordinary points		
28		Solutions about singular points. Method of Frobenius. Second Solutions and Logarithm terms		
29		Series Solutions: Cauchy-Euler equation method. Solutions about ordinary points. Solutions about singular points. Method of Frobenius. Second		
31				Term test

INSTRUCTOR Signature:

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