

Hashemite University	 	Principle of Mathematics (110108102) 3 Credit Hours
Faculty of Science		Pre-requisite: ...
Department of Mathematics		Summer Semester 2016/2017

Course Syllabus

Course Information	
Instructor	Maysam Abu-dalu
Office Location	IT143
Office Hours	10:30-11:30 daily
Text Book : Mathematics for Economics and Business, Ian Jacques, Pearson Education Limited, 5 th edition, 2006.	
References(s)	Calculus for management, social and life sciences, D. Barkey, Saunders College Publishing 2 nd edition, 1990.

Grading Policy:	Participation and Exams:								
<table> <tr> <td>1st Exam</td><td>30%</td></tr> <tr> <td>2nd Exam</td><td>30%</td></tr> <tr> <td>Other</td><td>0%</td></tr> <tr> <td>Final Exam</td><td>40%</td></tr> </table>	1 st Exam	30%	2 nd Exam	30%	Other	0%	Final Exam	40%	Attendance is absolutely mandatory. Students who miss the class sessions without a compelling excuse will qualify the student to be dismissal. Students who miss a lab without a compelling excuse will lose participation points.
1 st Exam	30%								
2 nd Exam	30%								
Other	0%								
Final Exam	40%								

Course Objectives
To introduce the necessary mathematical concepts and techniques for the students of economics and business to enable them to face and solve problems in the future studies that need mathematics.

Teaching and Learning Methods	
- Introducing new definitions and using examples to illustrate new concepts. - Giving examples and applications for some theorems and corollaries. - Giving a sample assignment for each section. - Discussing some of the students' solutions of some sample assignments. - Making a discussion of the problems of each exam.	

Course Contents		
Week	Section in Text	Topics
1	1.1	Graphs of linear equations
	1.2	Algebraic solution of simultaneous linear equations
	1.3	Supply and demand analysis
	1.4	Algebra
2	1.5	Transposition of formulae
	1.6	National income determination
	2.1	Quadratic functions
	2.2	Revenue, cost and profit
3	2.3	Indices and logarithms
	2.4	The exponential and natural logarithm functions
	3.1	Percentages
	3.2	Compound interest
4	3.3	Geometric series
	4.1	The derivative of a function
	4.2	Rules of differentiation
	4.3	Marginal functions
5	4.4	Further rules of differentiation
	4.6	Optimization of economic functions
	4.7	Further optimization of economic functions
	4.8	The derivative of the exponential and natural logarithm functions
6	5.1	Functions of several variables
	6.1	Indefinite integration
	6.2	Definite integration
7	7.1	Basic matrix operations
	7.2	Matrix inversion
8	7.3	Cramer's rule

