BA123 Mathematics I

C O U R S E I N F O R M A T I O N

Prerequisites		Academic Year & Level		Teaching Methods			Credit
		Year	Semester	Lecture	Tutorial	Laboratory	**Hrs.**
None	-	1	1	2	2	0	3

C O U R S E A I M

Introduce students to differentiation, trigonometric, inverse trigonometric, algorithmic, exponential and hyperbolic functions, as well as parametric, implicit and partial differentiation. Also, provide students with a general overview of limits, Taylor's Also, provide students with a general overview of limits, Taylor's and Maclaurin's expansions, curve sketching and conic sections.

C O U R S E W E E K L Y C O N T E N T S

1 Functions – Graphs of rational functions
2 Inverse functions – Transformations of functions
3 The Derivative – Basic rules of differentiation – The Chain Rule
4 Trigonometric functions and their derivatives
5 Inverse trigonometric functions and their derivatives – Implicit differentiation
6 Exponential and logarithmic functions and their derivatives
7 Hyperbolic functions and their derivatives- **Midterm Exam**
8 Inverse hyperbolic functions and their derivatives
9 L'Hopital's rule
10 Partial derivatives
11 Taylor's and Maclaurin's expansion
12 Conic sections and 12th Assessment
13 Conic sections
14 Antiderivatives – The Fundamental Theorem of Calculus
15 Final revision

S T U D E N T G R A D I N G & A S S E S S M E N T

Weeks	**Exams**	**Assign.**	**Quizzes**	**Reports**	**Present.**	**Lab.**	**Total**
1 to 7	**20 Midterm**	←	1 0 M A R K S To be freely distributed among possible assessments			→	
8 to 12	←		2 0 M A R K S			→	
13 to 15	←		1 0 M A R K S			→	
16 or 17	**40 Final**						
Total	**Exams**	**Assign.**	**Quizzes**	**Reports**	**Present.**	**Lab.**	100

R E F E R E N C E S

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Other