BA323 Mathematics V

COURSE INFORMATION

Prerequisites	Academic Year & Level		Teaching Methods			Credit Hrs.
	Year	Semester	Lecture	Tutorial	Lab.	
BA224	3	5	2	2		3

COURSE AIM

This course introduces material related to basic mathematical and scientific fundamental knowledge needed in the areas of differential equations, Special functions, partial differential equations arising in mathematical physics, complex analysis.

COURSE WEEKLY CONTENTS

1 Def. of D.E. with variable coeff. Ordinary & singular points
2 Solution about ordinary points:
3 Solution about singular points: case I
4 Solution about singular points: case II & III
5 Special functions :Gama functions
6 Special functions :Beta functions
7 Special functions :Bessel functions- Midterm Exam
8 Legendre's Polynomials
9 Partial D.E.: Method of separation of variables
10 Heat equation
11 Wave equation
12 Conformal Mapping : complex functions as mapping- 12th Assessment
13 Bilinear transformation / Linear Fraction mapping
14 Schwarz – Christoffel mapping
15 Revision

STUDENT GRADING & ASSESSMENT

Weeks	Exams	Assign.	Quizzes	Reports	Present.	Lab.	Total
1 to 7	20 Midterm	← 10 MARKS To be freely distributed among possible assessments				→	30
8 to 12	←		20 MARKS			→	20
13 to 15	←		10 MARKS			→	10
16 or 17	40 Final						40
Total	Exams	Assign.	Quizzes	Reports	Present.	Lab.	100

REFERENCES

Textbook Advanced Engineering Mathematics, Fourth Edition 2011, by Dennis G. Zill / Warren S. Wright

Other