

Course Outlines

Course Details:

Course Code : MATH-125 Credit hours: 3.0
Course Title : Integral Calculus and Vector
analysis
Program : CSE / CSIT
Semester : Fall 2016
Course Teacher : Nushrat Jahan Bably
Lecturer, Dept. of CSE

Course Assessment:

The assessment components for evaluation of students are as follows:

Item/Activity	Marks (%)
Work Sheet (including class attendance and class tests)	25%
Assignment/ Presentation	10%
Mid-Term Test	25%
Final Examination	40%
Total	100%

Course Contents:

Lectures	Contents (Each lecture will be 1.5 hours duration)
Lecture-1	Limits and Derivation
Lecture-2	The tangent and velocity problems
Lecture -3	The limit and Function
Lecture -4	Calculating limits using the limits law
Lecture -5	The definition of limit
	Assignment/Presentation
Lecture -6	Continuity
Lecture -7	Limits at infinity
Lecture -8	Derivations and rate of change
Lecture -9	The derivatives as a function
	Class Test
Lecture -10	Differentiation Rules
Lecture -11	The product and Quotient rules
Lecture -12	Derivatives of Logarithmical function
	Class Test

	Mid-Term
Lecture -13	Hyperbolic Function
Lecture -14	Linear approximations and Differentials
Lecture -15	Maximum and Minimum values
Lecture -16	Integrals
	Assignment/Presentation
Lecture -17	Antiderivatives
Lecture -18	Areas and Distance
	Class Test
Lecture -19	The fundamental theorem of calculus
Lecture -20	Logarithm defined as an integrals
Lecture -21	Indefinite integrals
Lecture -22	Indefinite integrals
Lecture -23	The Substitution Rule
	Class Test
Lecture -24	Overview
	Final Examination
Textbooks:	Stewart, James. Calculus: Early Transcendentals. 8th ed.