Salahaddin University - Erbil
College of engineering - Civil Department

Module Name	Mathematics III			Code	109
Course Status	Core	Duration:	15 week – one semester	Credit point	5
Pre-requisites	Mathematics II		Total Work Load 135 hr	Class Attendence 60 hr	Self Studies 75 hr

Course Description	Math. III goes on to cover the rest of the topics in the Calculus book in conjunction with and as a complement to mathematics II and links physics with mathematics to provide a strong background for engineering . Calculus gives us the tools to study rates of change and motion. The main aspects of calculus: polar coordinates system-Vectors (representation, operation& product)-position, velocity , acceleration and speed - function of more than one variables (partial derivatives, chain rule, higher order derivatives)-differential equations-multiple integrals
Course Objectives	This course is to deal with principle of calculus and their application in life science. The first objective in a course in calculus should be using the basic knowledge of differential and integration and delving into their depth and to know different types of coordinates to facilitate dealing with other topics
Learning Outcome	At the end of the semester, students would be able to recognize different type of coordinates systems and problem-solving principles. The student will get familiar to vectors problems . They will get to find solution of differential equations and solve the problems of multiple integrals at the end of the semester
Literature & text Books	1-Thomas_ Calculus " Eleventh Editi on" 2- George B. Thomas, Jr, Maurice D. Weir, Joel Hass, Christopher Hell <<THOMAS CALCULUS 13/E >> Pub, Pearson, 2010 3- George B. Thomas, Jr, Maurice D. Weir, Joel Hass, Frank R. Gird <<THOMAS CALCULUS 11/E >> Pub, Pearson, 2005 ,

Type of Teaching	Theory Lectures	Tutorial	Practical
	3 hr	1 hr	0 hr

Students are required to do first midterm exam on 8 week, class room activities, quizzes, home works and final exam on week 15th. So that the final grade will be based upon the following criteria:

Evalution Profile			
	Course period efforts (out of 40%)	Midterm Exam (90 min written exam at week 8)	20 %
		Short exams (Quiz) at least 2 during the course period (one of them must befor week 8)	12 %
		assignments and home works at least 2 during the course period	4 %
		Class Room Activities, Reports and Seminars	2 %
	Course period efforts (out of 60%)	Written exam (120 min written exam week 15)	60 %
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