GAU, Faculty of Engineering

Cour	se Unit Title	Calculus III						
Cour	se Unit Code	MT211						
Туре	of Course Unit	Compulsory, All engineering students						
Leve	l of Course Unit	2nd Year BSc						
Natio	onal Credits	3						
Num	ber of ECTS Credits Allocated	7 ECTS						
Theo	retical (hour/week)	5						
Prac	tice (hour/week)	-						
Labo	oratory (hour/week)	-						
Year	of Study	2						
Seme	ester when the course unit is delivered	3						
Mod	e of Delivery	Face to Face						
Lang	uage of Instruction	English						
Prer	equisities and co-requisities	MT112						
Reco	mmended Optional Programme Components	-						
Obje	 Dbjectives of the Course: Conceptial overview of theorems and methods within applied course material Teaching Methods of Convergence and divergence. Teaching three dimensional vector analysis 							
Learning Outcomes								
When this course has been completed the student should be able to As								
1	Perform mathematical manupulation with complex numbers and functions							
2	Determine convergence, divergence, absolute convergence on a given series.							
3	Realize the power series, applications of Taylor. Maclaurin, and Binomial series.							
4	Apply three dimensional vector analysis							
5	5 Undertake mathematical operations on double and triple derivatives/integrals							
Assessment Methods: 1. Written Exam. 2. Ouiz								
Course's Contribution to Program								
				CL				
1	Ability to understand and apply knowledge of mathematics, science, and engineering							
2	Ability to design and conduct experiments as well as to analyze and interpret data							
3	Ability to work in multidisciplinary teams while exhibiting professional responsibility and ethical conduct							
4	Ability to apply systems thinking in problem solving and system design							
5	Knowledge of contemporary issues while continuing to engage in lifelong learning							
6	Ability to use the techniques, skills and modern engineering tools necessary for engineering practice							
7	Ability to express their ideas and findings, in written and oral form							
8	Ability to design and integrate systems, components or processes to meet desired needs within realistic constraints							
9	Ability to approach engineering problems and effects of their possible solutions within a well structured, ethically responsible and professional manner							
	CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate 4: High, 5:Very High)							

Week Introduction Fxams 1 Appendix 1 Complex numbers Evants 3 Appendix 2 Complex functions and derivatives E-Quiz 1 4 Chapter 9 Taylor, Maclauren series E-Quiz 1 5 Chapter 9 Taylor, Maclauren series E-Quiz 1 6 Chapter 9 Absolute and conditional convergence test E-Quiz 1 8	Course Contents												
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