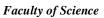
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Course specification

University/Academy: Damanhour University

Faculty/Institute: Science
Department: Mathematics

1. course Data:				
Course code:	Course title:		Academic year/level:	
Math 455	Complex Analysis		2010-2011	
			Fourth year - First semester	
Specialization: Special Physics	No. of instructional units: lecture 2 practical 1			
2. course Aim		Demonstrate theoretical knowledge and have practical skills in the theory of complex analysis. Demonstrate an ability to initiate and sustain in-depth research relevant to complex analysis. Have an opportunity to put theory into practice via applications of complex analysis on a real life problems.		
3. Intended learning outcome				
a) Knowledge and understanding		complex analysis.	and concepts used in the	
		research on a topic w	required to carry out a piece of rithin complex analysis. contribution and impacts of applied science.	
b) Intellectual skill	s	b2. Assess and complex analysis. b3. Demonstrate a	riate theories, principles and the complex analysis. evaluate the literature within a reasoned argument to the ad unfamiliar problems relevant	

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c) Professional skills	c1. Plan practical activities using techniques and procedures appropriate to complex analysis.
	c2. Execute a piece of independent research using
	complex analysis media and techniques.
d) General skills	d1. Deal with an appropriate effective written and oral communication skills relevant to complex analysis.
	d2. Work effectively as part of a group, involving leadership, group dynamics and interpersonal skills such as listening, negotiation and persuasion relevant to complex analysis.
	d3. Use organization skills (including task and time management) relevant to complex analysis both individually and in a group situation.
	d4. Set tasks and solve problems relevant to complex analysis using ideas and techniques some of which are at the forefront of the discipline.
4. course content	1-Basic properties of complex numbers.
	2-Functions of a complex variable,.
	3-Limits and continuity.
	4-Complex differentiation.
	5- Cauchy-Riemann equations.
	6-Complex integration.
	7- Cauchy's theorem.
	8-Cauchy's integral formula.
	9-Infinite series.
	10-Taylor's and Laurent's expansion.
	11-The residue theorem.
	12-Evaluation of some definite integrals.
	13-Conformal mapping.
	1-Basic properties of complex numbers.
1	
	2-Functions of a complex variable,. 3-Limits and continuity.

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5. Teaching and learning	5.1 Lectures.	
methods	5.2 Tutorials	
	5.3 Homework	
	5.4 Oral discussion	
6. teaching and learning		
methods for students with	None	
special needs		
7. Student Assessment		
a) Procedures used:	Final exam	
b) Schedule:	Assessment 1 Final exam Week 15	
c) Weighing of Assessment:	Final exam 100 Marks (100%)	
List of Textbooks and References:		
d) Course Notes	Course notes provided by the staff member of	
	Math department, to be handed at the beginning	
	of the semester.	
e) Required Books (Textbooks)	R.V.Churchel & J.W.Brown, Complex variables	
	and applications,	
f) Recommended Books	None	
g) Periodicals, web sites,,etc	None	

Course Instructor: Prof. Dr. Ragab Omer Abd El-Rahman

Head of Department: Prof. Dr. Mohamed Darwish

Date: / /