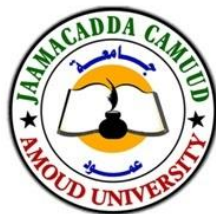
  
**AMOU UNIVERSITY**  
**“A Vehicle for Peace and Development”**  
**AMOU UNIVERSITY**



**FACULTY OF COMPUTING AND ICT**

**DIPLOMA IN INFORMATION TECHNOLOGY PROGRAMME**

**ACADEMIC YEAR 2016/ 2017**

**COURSE DESCRIPTION**

<b>DIT 204</b>	<b>Discrete Mathematics</b>		
Contact Hours	45		
Pre-requisite	N/A		
Purpose/Aim	This course aims at building further on the concepts of physics and electricity for IT. It captures reasoning, computer decision making and circuitry involved		
Course Objective (Indicative Learning Outcomes)	<ul style="list-style-type: none"> <li>Students are required to learn about Boolean algebra, logical thinking and reasoning, alongside the circuitry involved in achieving such.</li> </ul>		
Course Content	<ul style="list-style-type: none"> <li>Boolean algebra: axiomatic definitions of Boolean algebra, duality, proposition and proposition functions, truth-values and truth tables;</li> <li>Logic: Predicate logic, Propositional logic, logical reasoning;</li> <li>Set Theory: Set algebra, recursive definition of sets, orderings, relations, Partially ordered sets, Lattices;</li> <li>Permutations and Combinations;</li> <li>Graph Theory: Directed and undirected graphs, subgraphs, circuits, paths, cycles, coactively, adjacency and incidence matrices,</li> <li>Elements of transport network.</li> </ul>		
Learning & Teaching Methodologies	Lectures, tutorials		
Instructional Materials/Equipment	Classroom with audio visual aids Computer laboratory		
Course Assessment	<b>Type</b>	<b>Weighting (%)</b>	
	Final Examination	60	
	Mid Term Examination	20	
	Assignment	10	
	Attendance	10	
	Total	100	
Recommended Reading	<b>Title</b>	<b>Author</b>	<b>Publisher</b>
Additional Reading			
Other Support Material	A variety of multimedia systems and electronic information resources as prescribed by the lecturer.		



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Various application manuals, URL search and journals.
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