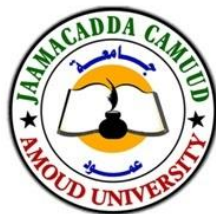
  
**AMOU UNIVERSITY**  
**“A Vehicle for Peace and Development”**  
**AMOU UNIVERSITY**



**FACULTY OF COMPUTING AND ICT**

**DIPLOMA IN INFORMATION TECHNOLOGY PROGRAMME**

**ACADEMIC YEAR 2016/ 2017**

**COURSE DESCRIPTION**

<b>DIT 305</b>	<b>Programming Methodology</b>	
Contact Hours	45	
Pre-requisite	N/A	
Purpose/Aim	This course aims at equipping students with knowledge on foundation studies of programming languages	
Course Objective (Indicative Learning Outcomes)	<ul style="list-style-type: none"> <li>• Students should learn about structured programming, and be able to explain basic concepts and building blocks of a programming language such as C.</li> <li>• Students should be able to create simple systems using C programming language.</li> </ul>	
Course Content	<ul style="list-style-type: none"> <li>• Definition of an algorithm;</li> <li>• Defining a problem: Tractable and intractable problems;</li> <li>• Documentation; Top-down problem-solving;</li> <li>• Structured programming; Variables; Control Structures; Functions and Procedures;</li> <li>• Input and Output; File Management; Programming Standards;</li> <li>• Writing correct and efficient programs;</li> <li>• Designing and analyzing algorithms; Mathematical foundations of algorithm design; Summations; Recurrences; Counting and probability;</li> <li>• Dynamic programming;</li> <li>• Amortized analysis.</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
	<b>Total</b>	<b>100</b>



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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. Various application manuals, URL search and journals.		