


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



FACULTY OF COMPUTING AND ICT

BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY PROGRAMME

ACADEMIC YEAR 2015/ 2016

COURSE DESCRIPTION

BIT 211	IT Fundamentals
Contact Hours	52
Pre-requisite	N/A
Purpose/Aim	The course introduces students to the various fields of computing and the role of computers in society and provides an introduction to the historical and social context of computing and an overview of information technology as a discipline.
Course Objective (Indicative Learning Outcomes)	<ul style="list-style-type: none"> • Students are introduced to a number of basic and fundamental concepts of the computer system including: the technological evolution of the computer, the hardware and software components and underlying technologies that are the basis of the modern digital computer including The key functions of the computer: input, processing, storage and output; The use of computers in organizations including a review of key application areas and how they are developed and implemented; Issues relating to the impact of the use of computers on organizational processes, functions, operations, productivity and resources including human and physical resources. • Students will also be introduced to data communications and computer network concepts and systems. • On completion of this course students will have an in-depth knowledge and appreciation of the information technology field, systems, principles, concepts and applications
Course Content	<ul style="list-style-type: none"> • Introduction to Information Technology <p>What is Information Technology? Information Technology Application Areas, Information Technology in Business and Management, Information Technology and Society.</p> <ul style="list-style-type: none"> • The Computer and its Technological Evolutions <p>Analog and Digital Computers, Information Representation in Digital Computers: The Computer Number System , Key Functions of the Digital Computers, Examining the Digital Computer into Details, The Technological Evolution of Digital Computers, Characteristics of Digital Computers.</p> <ul style="list-style-type: none"> • Key Functions of the Digital Computer System <p>The Input Function, The Processing Function , The Output Function The Storage Function.</p>



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	<ul style="list-style-type: none"> • Classification of General-Purpose Digital Computers Types of Digital Computers, Processing speed , Processor type , Clock speed Memory capacity, Secondary storage capacity, Number of Users, Expandability and Upgradability. • Components of the Computer System The Hardware Sub-System: Inside the Computer - The CPU/MPU and Memory; The Input/ Output Sub-System - Types of Input/ Output Devices and Media; The Software Sub-System: - Systems Software, Applications Software, Computer- Based Information Systems. • The Basic Architecture of the Computer System The Internal Components of the Computer System: The CPU Revisited, How the Computer Works – Processing Inside the CPU; The Microcomputer System- Key Concepts, Classification of Microprocessors, Components of the PC - Motherboard: How the Motherboard Works. • Data Communications and Computer Networks Concepts Computer Networks and Data Communications Fundamentals, Configuration of Data Communications Systems, Data Transmissions: Basic Concepts and Principles, Exploring Data Communication Applications, Data Communications and Computer, Networks: Some Advanced Concepts, Data Communication Channels, Network and Communication Devices • Introduction to Computer Ethics Some Historical Milestones, Defining the Field of Computer Ethics, Example Topics in Computer Ethics; Computers in the Workplace, Computer Crime, Privacy and Anonymity, Intellectual Property, Professional Responsibility, Globalization; The Meta-ethics of Computer Ethics. 		
Learning & Teaching Methodologies	Lectures, tutorials and computer laboratory exercises		
Instructional Materials/Equipment	Classroom with audio visual aids Computer laboratory		
Course Assessment	Type		Weighting (%)
	Final Examination		60
	Mid Term Examination		20
	Assignment		10
	Attendance		10
	Total		100
Recommended Reading	Title	Author	Publisher
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.		