1.	**Subject Title**	**Information Technology and Application**
2.	**Subject code:**	**CICT1033**
3.	**Status:**	Major
4.	**Credit hour:**	3 (2+1) 2 for lecture (2 hours per week x 14 weeks) 1 for lab (2 hours per week x 14 weeks)
5.	**Semester/year:**	1/1
6.	**Pre-requisite:**	None
7.	**Teaching method:**	Distance Learning (Electronic)
8.	**Evaluation**	**Assessment and Marking Percentage:** Quizzes 10 % Assignments 10 % Interactions through discussion board 10 % Mid-Semester Exam 20 % Final Examination 50 %
9.	**Lecturer:**	
10.	**Objective:**	CICT1033 is designed to enable students to: • Know the concepts of Information and Communication Technology (ICT) and the knowledge era. Master the use of ICT daily lives, which has affected the society, organizations and individuals in many aspects. • Explain and elaborate on the components of information and communication technology. • Understand issues, opportunities and the role of society in ICT and organization. • Demonstrate knowledge of the fundamentals of computer hardware and software architectures.
11.	**Learning outcome:**	Upon completion of CICT1033, students should be able to: • Apply the concept of Information Communication Technology (ICT) to facilitate the organizations. Identify the current ICT trends in industry. • Help the organization to develop ICT infrastructure that is of high quality and consistent with organizational business goals.

12.	**Topics**	Details	Lecture (Hrs)	Lab (Hrs)
	Topic 1	**Information Communication Technology and You** • The five parts of an information system: people, procedures, software, hardware and data • Four kinds of computers – microcomputer, minicomputer, mainframe, and supercomputer – and describe hardware devices for input, processing, storage, output and communications • Computer connectivity, the Internet and the Web	2	2
	Topic 2	**Application Software** • Common features of most software applications • Browsers • Word processors Spreadsheets • Database management systems • Presentation graphics • Software suites and integrated software	4	4
	Topic 3	**System Software** • The three basic functions of any operating system • The three categories of operating systems • The purpose of utilities and utility suites The five most essential utilities • Device drivers • Language translators	2	2

	Topic 4	**System Unit & Input/ Output Devices & Secondary Storage** • How a computer uses binary codes to represent data. • The major system unit components. • Types of memory.Four principal types of bus lines. • Four types of ports. • Latest Input /Output Devices • Latest Secondary Storage	3	3
	Topic 5	**Bandwidth, serial versus Connectivity, the Wireless Revolution and Communications** • Connectivity, the wireless revolution and communications. • Physical and wireless communications channels. • Conventional modems, T1, ISDN, DSL, cable modem, and satellite connections.parallel transmission, direction of data transmission, and protocols. • Network architecture – configurations and strategies. • Local area, metropolitan area, and wide area networks.	3	3
	Topic 6	**The Internet and the World Wide Web** • Internet History • Concepts of the Internet Functions of the Internet • Hardware and Software of the Internet	2	2
	Topic 7	**Multimedia** • Definition of Multimedia • History and Concept of Multimedia	2	2
	Topic 8	**Privacy, Security, Ergonomics and the Environment** • Privacy and Issues • Introduction to Security • Computer Crime and Measures of Security What is Ergonomics? • Mental and Physical Health • Basic Green PC • Personal Responsibility	2	2
	Topic 9	**Databases** • Database Characteristics • Features of Database Management Systems Evolution of Database Technology • Architectures of Database Management Systems	2	2
	Topic 10	**Information Systems (IS)** • History of IS • Study of IS Applications of IS • Types of IS • IS Research and Development	2	2

	Topic 11	**Systems Analysis and Design** • The Systems Development Environment • The information Systems Development Life Cycle (SDLC).Rapid Application Development (RAD), prototyping, Joint Application Development (JAD) and Computer Aided Software Engineering (CASE). • Agile methodologies and extreme programming. • Object Oriented Analysis and Design and the Rational Unified Process (RUP).	2	2
	Topic 12	**Programming Languages** • History of Programming languages • Why do we need Programming Languages?Generations of Programming Languages • Programming languagages categories • Examples of Programming Languages	2	2
		Total contact hours	28	28
		Equivalent Lecture hours	28	14
		Total Lecture hours	42	
		Credit Hours	3	
13	**Main reference:**	Shelly, Gary B. Cashman, Thomas J. and Vermaat, Misty E. (2007). **Discovering Computers 2008.** Course Technology;		
14	**Additional references:** **Other materials:**	1. Norton, Peter. (2004) **Peter Norton's Introduction to Computers** (6th ed.) Career Education 2. Miller, Michael (2007). **Absolute Beginner's Guide to Computer Basics** (4th ed). Que. All other materials will be available to students online.		