Addis Ababa University
School of Information Science

Module Title	**Basics of Information and Communication Technology**
Module Code	INSY-M1003
Course Title	**Information and Communication Technology as Common Course**
Course Code	INSY1001
Instructor Information	Name: *Tsegaye Berhanu*
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Course Information	Academic Year: 2018/2019
	Semester: II
	Mode of Delivery: Parallel
Course Objectives	This course enables you to - Understand the importance of information and communication technologies in our daily lives - Understand concepts, principles and operations of information and communication technologies - Be aware of issues that you need to be concerned with while making use of these technologies.
Course Description	The course is designed for students taking introduction to information and communication technologies as a common course. It offers an overview of computers and ICT, the development of computers, logical organization of a computer system, computer software, computer arithmetic, computer system architecture, computer network and communication, problem solving using computers (Application of computer in different areas), operating systems (single and multiuser), windows environment. It should be given after the introductory course of the student's field of study.
Learning Outcomes	Upon completion of this course, a student will be able to: - Use computers as a prime tool in solving common problems within various facets of our society - Explain the major components, functions and principle of computers - Identify various components of a computer system - Explain the historical development of computer with their characteristics - Define basic terms associated with communication and networking - Make use of the basic MS office application - Describe basic concepts in internet - Identify relevant ICT applications in their field of study

Course Content

Topics

Chapter 1: **Overview of Information and Communication Technology**
- 1.1. Defining Computer and ICT
- 1.2. Data Vs Information
- 1.3. Characteristics of computers
- 1.4. Application area of computers

Chapter 2: **Historical Development of Computers**
- 2.1. History of Computers
- 2.2. Generations of Computers
- 2.3. Types of Computers
- 2.4. Processing Power of Computers

Chapter 3. **Computer Systems**
- 3.1. Hardware
  - 3.1.1. The processing unit (CPU)
  - 3.1.2. Main Memory
  - 3.1.3. Input unit
  - 3.1.4. Output unit
  - 3.1.5. Secondary Storage Unit

3.2. Software
    3.2.1.   System software
    3.2.2.   Application software
3.3. Data representation and Numbering Systems

Chapter 4: **Data Communication and Computer networks**
- 4.1. Data transmission
- 4.2. Telecommunications
- 4.3. Types of Network
- 4.4. Internet and the World Wide Web

Chapter 5: **Current Trends and Developments of Computers**
- 5.1. Computer Crime and Security
- 5.2. Software Piracy
- 5.3. Hardware, Software, Communication and User Interface Advances

Laboratory Session

1. Basics of Windows Operating System
- The computer environment (Desktop, My Computer and My Documents)
- Working with files and Folders
- Searching Files/Folders
- Protecting Computers or files with password
- Keyboard shortcuts

2. MS-Word
- Typing (font size, page margins, spacing, etc)
- Document formatting (alignment, font style, font color, boarder, etc)
- Document Header and Footer
- Hands on exercise and assignment

3. MS-Excel
- Creating the Workbook
- Enter data (Text, Numbers, etc.)
- Excel Function
- Hands on exercise and project

Teaching Strategy	The course will be delivered in the form of lectures, demonstration, student presentations, group discussions, and individual and group project works.
Assessment Criteria	The evaluation shall be based on both formative and summative assessment which include: | Assessment Forms	% of credit allotted
• Quizzes	20
• Assignments	10
• Practice (Lab Report and Assignment)	20
• Final examination	50	
Reference	Text book 1. Sinha, Pradeep K, & Priti Sinha (2003). Foundations of Computing. New Delhi: BPF publications 2. Carter, Roger (1996). Information Technology, 2nd edition. Oxford: Made Simple books. 3. Dida Midekso (1994). Introduction to Computer Science. Addis Ababa University press 4. Senn, james A. (195) information Technology in Business: Principles, practices, and opportunities. Prentice Hall 5. Leon, Alexis and Mathes Leon (1999). Fundamental of Information technology. New delhi: Leon TECHWorld