COURSE OUTLINE

Fundamentals of Information Technology

Department of Management Studies

Comilla University

Course Title	Fundamentals of Information Technology
Course Code	MGT 121
BNQF Code	4013121
Department / Program	Department of Management Studies
Target Students	1st Year (Semester II)
Credit Hr. / Contact Hr.	3.00 / 3.00
Course Type	Core
Pre-requisites (if any)	None

Class Schedule

Class Day	Class Hours
Tuesday	01:15 PM – 02.30 PM
Thursday	10:15 AM – 11.30 AM

Rationale

Information technology has become an integral part of modern management practice. This course introduces first-year management students to the fundamentals of computers, hardware, software and operating systems, and number systems, together with the networks and internet technologies that connect organizations. It develops practical competence in widely used office productivity tools (word processing, spreadsheets and presentations) and builds an understanding of how data, databases and information systems support managerial decision-making. The course also introduces e-commerce, IT security and ethics, and emerging technologies such as IoT, blockchain, artificial intelligence and the Fourth Industrial Revolution (4IR), preparing students to use technology effectively and responsibly in their academic and professional careers.

Course Objectives

1. To introduce students to the basic terminology, components and working principles of computer systems and their role in business organizations.
2. To develop students' ability to use word processing, spreadsheet and presentation software to solve business and managerial problems.
3. To familiarize students with computer networks, the internet and cloud-based tools used for communication and collaboration.
4. To develop an understanding of data management and of information systems that support decision-making in organizations.
5. To create awareness of e-commerce, IT security, ethical issues and emerging technologies relevant to modern management.

Course Learning Outcomes (CLO)

After completing the course, students will be able to:

CLO1	Explain the basic parts of a computer system, types and generations of computers, number systems, and the roles of hardware, logic gates, programming concept, software and operating systems.
CLO2	Describe computer networks, the internet and cloud computing, and classify network types and devices used in business environments.
CLO3	Apply word processing, spreadsheet and presentation software to prepare business documents, analyze data and present results.
CLO4	Explain data and database concepts and the types of information systems that support managerial decision-making.
CLO5	Evaluate the implications of e-commerce, IT security and ethics, and emerging technologies (IoT, blockchain, AI, robotics, 4IR) for business.

Mapping Course Learning Outcomes (CLOs) with PLOs

CLO	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9	PLO10	PLO11	PLO12
CLO1	√											
CLO2	√											
CLO3				√								
CLO4		√										
CLO5					√							

Note: Mapping to be confirmed against the program's approved PLOs.

Course Content and Mapping CLOs with the Teaching-Learning & Assessment Strategy

Week	Contents	Teaching-Learning Strategy	Assessment Strategy	CLO
1	Introduction to Information Technology: data, information and knowledge; role of IT in business and management. Basic organization of a computer, types of computers, history and generations of computers.	Lecture, Discussion	Class Test	CLO1
2	Computer hardware: input and output devices, memory organization, storage devices and processor. Number systems (binary, octal, decimal, hexadecimal) and basic conversions.	Lecture, Problem Solving	Class Test	CLO1
3	Computer software: system software, operating system basics, utility software and application software; open-source vs proprietary software and licensing.	Lecture, Discussion, Demonstration	Assignment	CLO1
4	Word processing for business: formatting, styles, tables, templates, mail merge and preparation of business letters, reports and memos.	Lecture, Hands-on Practice	Class Test, Assignment	CLO3
5	Spreadsheets: worksheet basics, formulas and functions (logical, lookup, date and financial), cell referencing, charts and data	Lecture, Hands-on Practice, Problem Solving	Class Test, Exam	CLO3

Week	Contents	Teaching-Learning Strategy	Assessment Strategy	CLO
	presentation, sorting, filtering, pivot tables, what-if analysis; designing effective business presentations. Review and makeup class (if any).			
6	Overview of programming languages: variables and data types, input and output, conditional statements, loops and Function. Digital Logic gates.	Lecture, Discussion, Problem Solving	Exam	CLO1
7	**Review and makeup class (if any), Mid Term Exam 1 & Feedback**			
8	Basics of networking: network types (LAN, MAN, WAN), topologies, network devices (switch, router, modem), IP address and basic protocols.	Lecture, Discussion	Class Test, Exam	CLO2
9	Internet and web technologies: WWW, browsers, search engines, email, cloud computing and collaboration tools, Internet of Things (IoT) in business.	Lecture, Discussion, Demonstration	Class Test	CLO2
10	Data and database management: data vs information, file system vs DBMS, tables, keys, relationships, basic queries; introduction to data-driven decision making and business analytics.	Lecture, Problem Solving	Exam	CLO4
11	Information systems in organizations: TPS, MIS, DSS, ERP, CRM and supply chain systems; how IT supports managerial functions (marketing, finance, HR, operations).	Lecture, Case Study	Exam	CLO4
12	E-commerce and digital business: e-commerce models, digital payment and mobile financial services, digital marketing basics, social media for business.	Lecture, Case Study, Discussion	Presentation, Exam	CLO5
13	IT security, ethics and emerging technologies: cyber threats, safeguards, privacy, intellectual property and ethical issues; blockchain, artificial intelligence, robotics, Fourth Industrial Revolution (4IR). Review and makeup class (if any).	Lecture, Discussion, Case Study	Presentation, Exam	CLO5
14	**Review and makeup class (if any), Mid Term Exam 2 & Feedback**			

Assessment Strategy: Course Evaluation Process and Mark Distribution

Continuous Assessment: Attendance, Class Test, Assignment, Presentation. Summative: Mid Semester Exam and Final Semester Exam.

SL	Category	Mark %	Type
1	Attendance	5%	Continuous
2	Class Test/ Quiz	5%	Continuous
3	Assignment	5%	Continuous
4	Presentation	5%	Continuous

SL	Category	Mark %	Type
5	Mid Semester Exam	20%	Summative
6	Final Semester Exam	60%	Summative
	Total	**100%**	

Make-up Procedures

Repeat Course, Mid-Term Incomplete Exam, Final Term Incomplete Exam.

Learning Materials

1. Pradeep K. Sinha and Priti Sinha, “Computer Fundamentals”, 6th Ed., BPB Publications, 2004.
2. Dr. M. Lutfur Rahman and Dr. M. Alamgir Hossain, “Computer Fundamentals”, 1st Ed., Systech Publications Ltd., 2013.
3. Kenneth C. Laudon and Jane P. Laudon, “Management Information Systems: Managing the Digital Firm”, Pearson (latest edition).
4. James A. O'Brien and George M. Marakas, “Management Information Systems”, McGraw-Hill (latest edition).
5. Microsoft Office (Word, Excel, PowerPoint) official training and help resources, as supplementary material for hands-on practice.

Course Teacher

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