

HAILEY COLLEGE OF COMMERCE
UNIVERSITY OF THE PUNJAB, LAHORE

Course Title: Information and Communication Technology

Course Code: BSC-205

Credit Hours: 03

Program: BS Commerce

Semester: 03

COURSE INFORMATION

PRE-REQUISITE	NONE
COURSE DESCRIPTION	This introductory course provides an understanding and hands-on learning of how information and communication technology (ICT) can be used to support personal productivity. A variety of popular, common software packages are used in the practical work, including Internet application (WWW), document preparation (Words), spreadsheets (Excel), databases (Access), and presentation (PowerPoint).
LEARNING OUTCOMES	Student will be able - To describe the basic concepts, functions and roles of ICT (LO1-C1) - To display the ability to use the end user tools to solve a wide variety of consumer problems (LO2-P2) - To express solutions for end user problems using productivity application in written form (LO3-C2)

SYLLABUS CONTENT

WEEK	INPUT	CONTACT HOURS
Week 1	Lecture Overview of the course outline throughout the semester Lab: No lab session	1 2
Week 2	Lecture - INPUT 1: BASIC INTRODUCTION TO COMPUTERS (C1)	
	• A World of Computers • What is a Computer? • The Components of a Computer • Advantages and Disadvantages of Using Computers • Networks and the Internet • Computer Software • Categories of Computers • Personal Computers • Mobile Computers and Mobile Devices • Game Consoles • Servers • Mainframes • Supercomputers • Embedded Computers • Elements of an Information System • Examples of Computer Usage Computer Applications in Society	1

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	Lab: Windows Environment	2
Week 3	Lecture - INPUT 2a: HARDWARE - SYSTEM UNITCOMPONENTS (C4) AND TYPES OF STORAGE (C7) • The System Unit • Processor • Data Representation • Memory • Expansion Slots and Adapter Cards • Ports and Connectors • Buses • Bays • Power Supply • Putting It All Together • Keeping Your Computer or Mobile Device Clean • Storage • Hard Disks • Flash Memory Storage • Cloud Storage • Optical Discs • Other Types of Storage • Putting It All Together Group <u>Assignment 1</u>: Announcement of Assignment Topic for group assignment. Submission due date: By 29/3/2013, Friday, 5pm.	1
	Lab: Internet and Web Every student should submit a topic for individual portfolio to Lab Instructor.	2

Week 4	Lecture - INPUT 2b: HARDWARE – UNDERSTANDING INPUT (C5) AND OUTPUT (C6)	
	• What is Input? • What are Input Devices? • The Keyboard • Pointing Devices • Mouse • Other Pointing Devices • Touch Screens and Touch-Sensitive Pads • Pen Input • Other Input for Smart Phones • Game Controllers • Digital Cameras • Voice Input • Video Input • Scanners and Reading Devices • Biometric Input • Terminals • Putting It All Together • Input Devices for Physically Challenged Users • What is Output? • Display Devices • Printers • Speakers, Headphones, and Ear Buds • Other Output Devices • Putting It All Together • Output Devices For Physically Challenged Users	1
	Lab: Word Processing 1 (Microsoft Word)	2
Week 5	Lecture - INPUT 3a: SOFTWARE - SOFTWARE FOR SYSTEMS (C3)	
	• Application Software • Business Software • Graphics and Multimedia Software • Software for Home, Personal, and Educational Use • Web Applications • Application Software for Communications • Learning Tools for Application Software	1
	Lab: Word Processing 2 (Microsoft Word)	2
Week 6	Lecture - INPUT 3b: SOFTWARE - TYPES OF UTILITY PROGRAMS AND OPERATING SYSTEMS (C8)	
	• System Software • Operating Systems • Operating System Functions • Types of Operating Systems • Stand-Alone Operating Systems • Server Operating Systems • Embedded Operating Systems • Utility Programs	1
	Lab: Spreadsheet Program 1 (Ms Excel)	2

Week 7	Lecture - INPUT 4: ENTERPRISE COMPUTING (C14) • What is Enterprise Computing? • Information Systems in the Enterprise • Enterprise-Wide Technologies and Methodologies • Virtualization and Cloud Computing • E-Commerce • Enterprise Hardware • High-Availability, Scalability, and Interoperability • Backup Procedures	1
	Lab: Spreadsheet Program 2 (Ms Excel)	2
Mid-Term Break		
Week 8	Lecture: QUIZ 1 (Covers topics from Input 1-4)	1
	Lab: Presentation Software 1 (Ms PowerPoint)	2
Week 9	Lecture - INPUT 5: MANAGING A DATABASE (C10) • Database, Data, and Information • The Hierarchy of Data • Maintaining Data • File Processing vs Databases • Database Management Systems • Relational, Object-Oriented, and Multidimensional Databases • Web Databases • Database Administration	1
	Lab: Presentation Software 2 (Ms PowerPoint)	2
Week 10	Lecture - INPUT 6: NETWORKS AND COMMUNICATION (C9) • Communications • Uses of Computer Communications • Networks • Network Communication Standards • Communications Software • Communication Over The Telephone Network • Communication Devices • Home Networks • Communications Channel • Physical Transmission Media • Wireless Transmission Media	1
	Lab: Database Software1 (Ms Access)	2
Week 11	Lecture - INPUT 7: FUNDAMENTALS OF THE WORLD WIDEWEB AND INTERNET (C2) • The Internet • Evolution of the Internet	1

	• The World Wide Web • E-Commerce • Other Internet Services • Netiquette	
	Lab: Database Software1 (Ms Access)	2
Week 12	Lecture - INPUT 8: MANAGE COMPUTING SECURELY, SAFELY, AND ETHICALLY (C11) • Computer Security Risks • Internet and Network Attacks • Unauthorized Access and Use • Hardware Theft and Vandalism • Software Theft • Information Theft • System Failure • Backing Up – The Ultimate Safeguard • Wireless Security • Health Concerns of Computer Use • Ethics and Society • Information Privacy	1
	Lab: Lab Test- Preparing Portfolio	2
Week 13	Lecture - INPUT 9: EXPLORING INFORMATION SYSTEM DEVELOPMENT (C12) • What is System Development? • What Initiates a System Development Project? • Planning Phase • Analysing Phase • Design Phase • Implementation Phase • Operation, Support, and Security Phase	1
	Lab: Lab Test- Preparing Portfolio	2
Week 14	Lecture: QUIZ 2 (Covers topic from Input 5-9)	1
	Lab: Lab Test- Submit Portfolio	2

References	1. Williams, K. & Sawyer, C. (2011), Using IT: A Practical Intro to Computers & Communications, Edition: 10th edition Complete, International Edition, McGraw-Hill. 2. Beekman, G. & Beekman, B. (2011), <i>Digital Planet: Tomorrow Technology and You</i>, 10th Edition. Complete Edition, Prentice Hall. 3. O’Leary, T. & O’Leary, L. (2011), <i>Computing Essentials 2012: Introductory</i>, Complete Edition, New York: McGraw-Hill. 4. Grant, A. & Meadows, J. <i>Communication Technology</i>, 6th Edition, Focal Press.
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