

GC. 112 Computer Science

GC - 112 Computer Science 3(2+1)

BS Geography 4 Years Programme, University of the Punjab, Lahore

BS Geography w.e.f. Academic Session 2018-2022 and onward

COURSE DESCRIPTION:

This course is designed for students with little or no computer experience. This course introduces computer concepts, hardware components, basic computer operations and use of software applications to solve problems. Students will have complete understanding and use of personal computers and application software such as Microsoft Word, Excel and PowerPoint.

AIMS AND OBJECTIVES:

Students successfully completing this course should be able to:

- Develop a vocabulary of key terms related to the computer and to software programs.
- Identify the components of a personal computer system.
- Demonstrate mouse and keyboard functions.
- Demonstrate window and menu commands and how they are used.
- Demonstrate how to organize files and documents on a USB/hard drive.
- Compose, format and edit a word document.
- Send email messages and navigate and search through the internet.

COURSE CONTENTS:

Data and Information, Information Processing Cycle, Components of a Computer, Advantages and Disadvantages of Using Computers, Categories of Computers, Computer Applications in Society. Keyboard and Pointing Devices, Types of Input, Input for Smart Phones, Game Controllers, Digital Cameras, Voice Input, Video Input, Scanners and Reading Devices, Biometric Input, Terminals. Display Devices, LCD Monitors and LCD Screens, Plasma Monitors, CRT Monitors, Printers, Nonimpact Printers, Impact Printers, Speakers, Headphones, Data Projectors. Interactive Whiteboards, Storage, Hard disks, Flash Memory Storage, Solid State Drives, Memory Cards, USB Flash Drives, Cloud Storage, Optical Discs, Blue-Ray Discs, Magnetic Tapes, Magnetic Stripe Cards and Smart Cards, Microfilm and Microfiche, Enterprise Storage. Motherboard, Processor, Control Unit, Arithmetic Logic Unit, Machine Cycle. Data Representation, Memory Sizes, Types of Memory, RAM, Cache, ROM, Flash Memory. System Software, Operating Systems, Utility Programs. Application Software, Business Software, Graphics and Multimedia Software, Software for Home, Personal, and Educational Use, Web Applications. Application Software for Communications. Internet, World Wide Web, Networks, Intranets. Enterprise Computing, Computer Security Risks, Viruses. Introduction to MS Word, MS Excel, MS PowerPoint.

RECOMMENDED BOOKS

1. Shelly, G. B., & Vermaat, M. E. (2012). Discovering computers fundamentals: your interactive guide to the digital world (Latest ed.). Cengage Learning.

2. Sawyer, S. C., & Williams, B. (2000). Introduction to Using Information Technology (Latest ed.). McGraw-Hill Higher Education.17
3. Brookshear, G. G., & Brookshear, J. G. (2002). Computer science: an overview (Latest ed.). McGraw-Hill Higher Education.
4. O'Leary, T. (2010). Computing Essentials (Introductory ed.). Career Education.
5. Sinha, P.K.(2007). Computer Fundamentals (6th ed.). BPB publication.