Course Title: Principle of Computer (101CSR)

Credit Hours: 3 Hours (2 hrs. Lecture + 1 hr. Lab)

Pre-requisite: None

Course Level: Level – 1

Course Description
This course discusses the various parts of a computer and their working, and the various types of task-oriented software.

Course Objectives

LECTURE
• Describe the fundamental characteristics of a computer and the areas where computers are used
• Explain the various classifications of computers
• Discuss the various types of task-oriented software and the kinds of software that are available for large and small businesses
• Discuss the various methods of acquiring software by individuals and businesses
• Describe the functions of various computer professionals
• Describe the functions of an operating system and explain the basics of a personal computer operating system
• Describe the methods of resource allocation on large computers and principles of memory management
• Describe the concepts of multiprocessing, multiprogramming, and time-sharing
• Explain the working of the components of Central Processing Unit (CPU)
• Describe how program instructions are executed by the computer
• Describe how data is represented in computers
• Describe the components of a system units motherboard
• List how the computer processing speed is measured and how to increase the speed
• Explain how data is input into a computer and discuss various input devices
• List and describe various methods of computer output
• Discuss the various storage media – magnetic, optical, tape
• Describe how data is stored on disk – sectors, tracks, cylinders and discuss the disk access speed factors
• Explain how data is organized, accessed, and processed

LAB
In lab the MS-Office applications of Word and Powerpoint are practiced along with the basic file management.
Attendance Policy
All students must have a minimum of 75% attendance, failing which may result in debarring from the course.

Grading Policy
Major Exams, Assignments, Quizzes, Lab sessions: 50%
Final Exam: 50%

Teaching Methods
Theory Lecture classes and Lab sessions.

Required Textbook

Course Contents:

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<th>WEEK</th>
<th>TOPICS</th>
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<td><strong>Chapter 1</strong>: Hardware: Basic components of a computer – input, output, processor, storage; classification of computers</td>
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<td><strong>Chapter 2</strong>: Applications software, task-oriented software</td>
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<td><strong>Chapter 3</strong>: Unix, Linux, Network operating system; Resource Allocation - sharing CPU, memory, storage resources, printing resources; and utility programs</td>
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<td><strong>Chapter 5</strong>: Output: Information for user – Computer screen technology,</td>
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<td>printers, voice output; terminals; computer graphics</td>
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<td><strong>Chapter 6</strong>: Multimedia; magnetic tape storage; file and data organization, processing stored data</td>
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