Automobile General

CSGMN101: Computer Fundamental Course Objective:

- Provide students with a thorough grasp of the fundamental principles, components, and operations of computers.
- · Equip students with the essential knowledge and skills to proficiently use computers in both personal and professional contexts.
- Familiarize students with key computer concepts and terminology.
- Foster an understanding of the historical evolution of computers and the various generations of computer technology.
- Develop insights into the basic structure and operations of a computer system.
- Instruct students on the vital hardware components, including the CPU, memory, storage devices, input devices, and output devices
- Illuminate the purpose and functionality of each hardware component.

CSGMN101T: Computer Fundamental (45 Lectures)

Credits 03

Course Outline:

- 1. Introduction (3 Lectures)
 - Define computer and discuss its characteristics.
 - Explore the generations of computers and their classifications (Micro, Mini, Mainframe, Super).
 - Examine applications of computers and introduce basic concepts of software and hardware.
 - Cover fundamental notions such as Bit, Byte, Word Nibble, and various computer languages.

2. : Basic Components of Computer (7 Lectures)

- Discuss the basic organization of a digital computer, including CPU, CU, ALU, • Register set, and Communication Pathway.
- Provide a basic explanation of CPU components, such as CU, ALU, and Register set.
- Define Communication Pathway, covering aspects like Bus, Internal and External Bus, Control, Address, and Data Bus.
- Explore input and output devices, including keyboards, pointing devices, and memory hierarchy.

3. Number System (10 Lectures)

Define positional and non-positional number systems, including Binary, Decimal, • Octal, and Hexadecimal.

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- Explore binary-decimal-octal-bexadecimal arithmetic, signed and unsigned numbers, and complement notation
- Cover addition and subtraction operations using complement notation and floating-point representation of numbers.
- Discuss computer codes, including weighted binary codes, non-weighted binary ٠ codes, and alphanumeric codes.

4. Data Communication and Computer Network (10 Lectures)

- Define data communication, its characteristics, components, and modes. ٠
- Explore media types for data communication (guided and unguided) and discuss channel capacity
- Introduce computer networks, covering network topology, types (LAN, MAN, WAN, CCAN, PAN), and network devices.
- Provide a basic understanding of email, search engines, chatting, internet conferencing, and intranet

5. Introduction to Operating System (15 Lectures)

- Define the operating system, its functions, and the need for OS.
- Classify OS based on CUI & GUI and Single or Multi-User systems.
- Introduce concepts of Multi Programming, Multi-Tasking, and Multi Processing.
- · Explain the booting process and provide a basic understanding of Assembler, Loader, Linker, and Interpreter

CSGMN101P: Computer Fundamental-Using (M.S Office) (15 Lectures)

Credits 01

1. M.S Word (3 Lectures)

- Introduction to Microsoft Word: Comprehensive overview of the Microsoft Word interface, encompassing document creation and seamless navigation.
- Document Formatting: Mastery of text formatting, paragraph structuring, and meticulous document layout customization.
- Utilizing Styles and Themes: Proficient application and tailored customization of styles, harnessing document themes for harmonized visual presentation.
- Effective Document Management: Seamless integration of headers, footers, page numbering, tables, and graphics for comprehensive document management.

2. : Microsoft PowerPoint (4 Lectures)

- Creating Dynamic Presentations: Insightful introduction to the PowerPoint • interface, empowering students to craft engaging slides and incorporate compelling content.
- Customizing Slide Formats: Proficient application of slide layouts, themes, and meticulous customization of slide backgrounds to achieve visual impact.
- Integrating Multimedia Elements: Seamless insertion of images, audio, and video files to enhance multimedia-rich presentations.
- Elevating Presentation Delivery: Skillful application of animations and transitions to elevate presentation delivery and captivate the audience.

3. Microsoft Excel (4 Lectures)

- Essential Spreadsheet Fundamentals: Comprehensive introduction to the Excel interface, encompassing efficient data entry and fundamental formula application.
- Harnessing Data Analysis Tools: Mastery of sorting, filtering, and conditional formatting tools to facilitate data analysis and interpretation.
- Visualizing Data with Charts and Graphs: Proficient creation and tailored customization of charts and graphs to effectively visualize data trends.
- Exploring Advanced Functions: Insightful introduction to advanced functions such as VLOOKUP, SUMIF, and COUNTIF to unlock powerful data manipulation capabilities.

4. Microsoft Access (4 Lectures)

- Delving into Database Fundamentals: Thorough understanding of databases; tables, and relational structures within the Access environment.
- Crafting User-Friendly Forms and Reports: Expert design of intuitive forms for seamless data entry and generation of comprehensive reports.
- Mastering Data Queries and Analysis: Proficient creation of queries to retrieve specific data and execute advanced data analysis tasks with precision and efficiency.

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