Computer Course Syllabus

Module 1: Introduction to Computers

- Overview of computer systems and their components
- History and evolution of computers
- Computer hardware and software
- Understanding operating systems and file management
- Introduction to computer networks and the internet

Module 2: Computer Fundamentals

- Understanding computer organization and architecture
- Binary and hexadecimal number systems
- Data representation and storage
- Introduction to computer memory and storage devices
- Computer input and output devices

Module 3: Software Applications

- Introduction to productivity software (Microsoft Office, Google Suite)
- Word processing and document formatting
- Spreadsheet creation and data analysis
- Presentation design and delivery
- Database management and data manipulation

Module 4: Computer Programming

Introduction to programming concepts and languages

- Basics of programming logic and problem-solving
- Syntax and structure of a programming language (e.g., Python, Java)
- Variables, data types, and operators
- Conditional statements and loops

Module 5: Web Development

- Introduction to HTML, CSS, and JavaScript
- Creating and styling web pages
- Website navigation and layout design
- Dynamic web page interactions and form handling
- Introduction to web frameworks and content management systems

Module 6: Data and Database Management

- Introduction to databases and data management systems
- Basics of SQL (Structured Query Language)
- · Database design and normalization
- Querying and manipulating database data
- Introduction to relational database management systems (e.g., MySQL, PostgreSQL)

Module 7: Networking and Security

- Understanding computer networks and network protocols
- Setting up and managing local area networks (LAN)
- Wireless networking and internet connectivity

- Network troubleshooting and security measures
- Introduction to network security concepts and best practices

Module 8: Operating Systems and System Administration

- Introduction to operating systems (Windows, macOS, Linux)
- Managing and customizing operating system settings
- File and folder management
- User and group administration
- Troubleshooting common operating system issues

Module 9: Data Analysis and Visualization

- Introduction to data analysis concepts and techniques
- Using spreadsheet software for data analysis
- Data visualization principles and best practices
- Creating charts and graphs to visualize data
- Introduction to data analysis tools (e.g., Microsoft Excel, Tableau)

Module 10: Cybersecurity and Ethical Hacking

- Understanding computer security threats and vulnerabilities
- Introduction to cybersecurity best practices
- Network security and threat detection
- Fundamentals of ethical hacking and penetration testing
- Methods for securing computer systems and networks

Thank You

