# YEAR 10 ICT



**PROGRAMME OF STUDY - TERM 1** 

### TERM 1.1 TYPES AND COMPONENTS OF COMPUTER SYSTEMS

### • Hardware and Software:

- Identify the hardware and software that make up a computer system, including input and output devices.
- Discuss types of application software and system software and their different roles.

# The Main Components of Computer Systems:

• Identify the roles of different hardware and internal components of a computer and how they work together to run the system effectively.

### • Operating Systems:

 Understand the different types of operating systems and identify the different types of user interfaces that are available.

# • Types of Computers:

• Explore different types of computers that perform a variety of roles.

## • Emerging Technologies:

 Discover how emerging technologies, including artificial intelligence and extended reality (virtual reality and augmented reality), are impacting many aspects of everyday life.

# **TERM 1.1 INPUT AND OUTPUT DEVICES**

## • Input Devices:

 Understand and explain what is meant by input devices and the roles of manual input devices and direct data entry devices.

### Direct Data Entry and Associated Devices:

 Learn about direct data entry methods used when large amounts of data need to be entered, often in commercial or business applications.

### Output Devices and Their Uses:

- Explore output devices and their uses.
- Describe the advantages and disadvantages of input and output devices.

# **TERM 1.2 STORAGE**

### Storage Devices and Media:

- Identify different data storage media and the devices necessary to write and read data to and from the media.
- Describe the uses of different types of storage media and compare their advantages and disadvantages.
- Compare the advantages and disadvantages of optical, magnetic, and solidstate storage media.

### **TERM 1.2 NETWORKS**

### Networks:

- Master the operation of a router and other common network devices, such as network interface cards, hubs, bridges, and switches.
- Learn about the use of Wi-Fi and Bluetooth in networks.
- o Discuss cloud computing for storing and sharing data.
- Describe the characteristics and purposes of common network environments and different types of networks.

### Network Issues and Communication:

- Gain a comprehensive understanding of the security issues regarding data transfer, including passwords and other authentication methods.
- Explain the use of anti-malware software and electronic conferencing.

### TERM 1.2 THE EFFECTS OF USING IT

### Microprocessor-Controlled Devices:

- Discuss the positive and negative effects of using microprocessor-controlled devices for monitoring and controlling devices at home.
- Understand the impact of microprocessor-controlled devices on lifestyle, leisure, physical fitness, and social interaction.
- Understand the importance of data security and discuss the effects of smart devices on monitoring and controlling transport, including data security, autonomous vehicles, and transport safety.

### · Health Issues:

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 Gain knowledge on health issues, including the causes of and strategies for preventing repetitive strain injury (RSI), back problems, eye problems, and headaches.