



Central International University-CIU

Diversity Learning Institute-DLI

Twikatane e.V Germany

Skills Curriculum/Syllabus

Course Duration: 3 to 6 months

Course: Information & Communications Technology(ICT)

What is Information & Communications Technology(ICT)

Information and Communications Technology (ICT) refers to the technologies and tools used to store, retrieve, transmit, and manipulate information in various forms. It encompasses a wide range of technologies and applications that facilitate communication, data management, and information processing.

ICT includes both hardware and software components, as well as networks and communication systems. Some key elements of ICT include:

1. **Computers and Peripherals:** This includes personal computers, laptops, servers, tablets, and other computing devices along with peripherals such as keyboards, mice, printers, and scanners.
2. **Software:** ICT involves various software applications and programs that enable tasks such as word processing, spreadsheet management, database management, graphic design, and more. Operating systems, productivity software, and specialized applications fall under this category.

3. **Networks and Communication Infrastructure:** ICT relies on networks and communication systems for the exchange of information. This includes local area networks (LANs), wide area networks (WANs), the Internet, routers, switches, modems, and other networking equipment.
4. **Internet and Web Technologies:** The Internet plays a crucial role in ICT, providing a global network for information sharing and communication. Web technologies such as websites, web applications, email, instant messaging, and social media are integral components of ICT.
5. **Telecommunications:** ICT encompasses various telecommunications technologies like mobile phones, landline phones, voice over IP (VoIP) systems, video conferencing systems, and other communication tools that enable voice and data transmission.
6. **Data Storage and Management:** ICT involves mechanisms for storing and managing digital data. This includes technologies like hard drives, solid-state drives, cloud storage, databases, and data management systems.
7. **Information Security:** With the increasing reliance on digital information, ICT includes measures and technologies to protect data from unauthorized access, breaches, and cyber threats. This involves encryption, firewalls, antivirus software, intrusion detection systems, and other security measures.

ICT has revolutionized the way information is accessed, shared, and processed, transforming various industries and sectors including business, education, healthcare, finance, entertainment, and government. It has enabled advancements in communication, automation, data analysis, and decision-making, making it an essential aspect of modern society.

Course Objectives

1. **Develop a broad understanding of ICT:** The course aims to provide students with a comprehensive overview of the field of ICT, including its key concepts, components, and technologies. Students will gain a solid foundation and a holistic understanding of the role of ICT in various domains.
2. **Acquire technical skills:** The course intends to equip students with practical skills necessary for working with ICT systems and technologies. This can include proficiency in operating systems, software applications, networking fundamentals, database management, web technologies, and other relevant technical skills.

3. Explore emerging ICT trends: The course may cover emerging trends and advancements in ICT, such as cloud computing, artificial intelligence, Internet of Things (IoT), big data analytics, cybersecurity, and mobile technologies. Students will gain insights into these areas and understand their impact on businesses and society.
4. Develop problem-solving abilities: ICT often involves troubleshooting and problem-solving. The course aims to enhance students' ability to analyze and solve technical issues that may arise in ICT systems. It may include practical exercises and projects to reinforce problem-solving skills.
5. Foster effective communication and collaboration: ICT professionals need to communicate effectively and collaborate with team members and stakeholders. The course may emphasize interpersonal skills, teamwork, and effective communication techniques, ensuring students can work efficiently in a professional ICT environment.
6. Promote ethical and responsible ICT practices: The course may highlight the importance of ethical considerations and responsible use of ICT resources. Students will learn about privacy, data protection, intellectual property rights, and ethical implications related to ICT.
7. Prepare for entry-level ICT roles or further studies: The course may aim to prepare students for entry-level positions in the ICT industry. It may provide them with the knowledge and skills required to pursue careers such as IT support specialist, network technician, web developer, database administrator, or system analyst. Alternatively, the course may serve as a foundation for further studies in ICT or related disciplines.

It's important to note that the specific objectives may vary depending on the institution, course curriculum, and the target audience of the program. It's recommended to review the course syllabus or consult with the institution offering the course for precise information on the objectives of the specific program you are considering.

(A) Syllabus Outline

Module 1: Introduction to ICT

- Duration: 20 hours

Module 2: Computer Fundamentals

- Duration: 30 hours

Module 3: Operating Systems and Software Applications

- Duration: 40 hours

Module 4: Networking Fundamentals

- Duration: 50 hours

Module 5: Database Management

- Duration: 40 hours

Module 6: Web Technologies

- Duration: 50 hours

Module 7: Information Security

- Duration: 40 hours

Module 8: Emerging ICT Trends

- Duration: 30 hours

Module 9: ICT Project Management

- Duration: 30 hours