

CTEC Level 3 ICT

Year 12 Curriculum Map

Term One Unit 1

Topics:

- LO1: Understand computer hardware
- LO2: Understand computer software
- LO3: Understand business IT systems

Key Learning:

- 1.1 Computer hardware
- 1.2 Computer components
- 1.3 Types of computer systems
- 1.4 Connectivity methods
- 1.5 Communication hardware
- 1.6 Hardware troubleshooting
- 1.7 Units of measurement
- 1.8 Number systems
- 1.9 Number conversion
- 2.1 Types of software
- 2.2 Application software
- 2.3 Utility software
- 2.4 Operating systems
- 2.5 Communication methods
- 2.6 Software troubleshooting
- 2.7 Protocols
- 3.1 Types of servers
- 3.2 Virtualisation
- 3.3 Networking characteristics
- 3.4 Connectivity methods
- 3.5 Business systems

Assessment: Weekly quizzes and examination questions.

Term Two Unit 1

Topics:

- LO4: Understand employability and communication skills used in an IT environment
- LO5: Understand ethical and operational issues and threats to computer systems

Key Learning:

- 4.1 Communication skills
- 4.2 Communication technology
- 4.3 Personal attributes
- 4.4 Ready for work
- 4.5 Job roles
- 4.6 Professional bodies
- 4.7 Industry certification
- 5.1 Ethical issues
- 5.2 Operational issues
- 5.3 Threats
- 5.4 Physical security
- 5.5 Digital security
- 5.6 Safe disposal of data and computer equipment

Assessment: End of unit assessment
External Assessment

Term Three Unit 2

Topics:

- LO1: Understand where information is held globally and how it is transmitted
- LO2: Understand the styles, classification and the management of global information.

Key Learning:

- 1.1 Holders of information
- 1.2 Types of information storage media
- 1.3 Types of information access and storage devices
- 1.4 The internet
- 1.5 World Wide Web
- 1.6 Information formats
- 1.7 Advantages
- 1.8 Disadvantages
- 2.1 Information styles and their uses
- 2.2 Information classification
- 2.3 Quality of information
- 2.4 Information management

Assessment: Weekly quizzes and examination questions

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Year 12 Curriculum Map

Term Four Unit 2

Topics:

- LO3: Understand the use of global information and the benefits to individuals and organisations
- LO4: Understand the legal and regulatory framework governing the storage and use of global information.
- LO5: Understand the process flow of information

Key Learning:

- 3.1 Data versus information
- 3.2 Categories of information used by individuals
- 3.3 Categories of information used by organisations
- 3.4 Stages of data analysis
- 3.5 Data analysis tools
- 3.6 Information system structure
- 4.1 Uk legislation and regulation relating to the storage and used of information
- 4.2 Global information protection legislation and regulation
- 4.3 Green IT
- 5.1 Information sources and data types
- 5.2 Data flow diagrams
- **Assessment:** Weekly quizzes and examination questions.

Term Five Unit 2

Topics:

- LO6: Understand the principles of information security.

Key Learning:

- 6.1 Principles of information security
- 6.2 Risks
- 6.3 Impacts
- 6.4 Protection measures
- 6.5 Physical protection
- 6.6 Logical protection

Assessment: End of unit assessment
External Assessment

Term Six Unit 3 & 17

Topics:

Unit 3

- LO1: Understand what is meant by cyber security
- LO2: Understand the issues surrounding cyber security

Key Learning:

- 1.1 Cyber security aims to protect information
- 1.2 Types of cyber security incidents
- 1.3 The importance of cyber security
- 2.1 Threats of cyber security
- 2.2 Types of attackers

Unit 17

- LO1: Understand what is meant by the Internet of Everything

Key Learning:

- P1: Explain the concept of the IoE
- P2: Explain the four (4) pillars of the IoE and how its innovations can transform businesses

- LO2: Be able to repurpose technologies to extend the scope of the IoE

Key Learning:

- P3: Outline potential development projects that could extend the scope of the IoE

Assessment: Weekly quizzes and examination questions.
Submission and assessment of P1 and P2.

CTEC Level 3 ICT Year 13 Curriculum Map

Term One Unit 3/Unit 17

Topics: Unit 3

- LO2: Understand the issues surrounding cyber security

Key Learning:

- 2.3 Motivation for attackers
- 2.4 Targets for cyber security
- 2.5 Impacts of attackers
- 2.6 Other consideration of cyber security

- LO3: Understand measures used to protect against cyber security incidents

Key Learning:

- 3.1 Cyber security risk management
- 3.2 Testing and monitoring measures
- 3.3 Cyber security controls

Unit 17

- LO1: Understand what is meant by the Internet of Everything

• Key Learning:

- P1: Explain the concept of the IoE
- P2: Explain the four (4) pillars of the IoE and how its innovations can transform businesses

- LO2: Be able to repurpose technologies to extend the scope of the IoE

• Key Learning:

- P3: Outline potential development projects that could extend the scope of the IoE

Assessment: Marking of completed sections of coursework.

Term Two Unit 3/Unit 17

Topics: Unit 3

- LO4: Understand how to manage cyber security incidents

• Key Learning:

- 4.1 Responding to an incident
- 4.2 Cyber security incident report

Assessment: End of unit assessment
External Assessment

Unit 17

- LO3: Be able to present concept ideas for repurposed developments

Key Learning:

- P4: Prepare a business proposal pitch to potential stakeholders on the chosen development project.
- P5: Deliver a business proposal pitch to potential stakeholders on the chosen development project.

Assessment: Marking of completed sections of coursework.

Term Three Unit 17

Topics: Unit 17

- LO1: Understand what is meant by the Internet of Everything

Key Learning:

- M1: Analyse the global impacts of the IoE on society and the environment.
- D1: Evaluate the potential negative impacts of these innovations on businesses.

- LO2: Be able to repurpose technologies to extend the scope of the IoE

Key Learning:

- M2: Conduct a feasibility study on one of these development projects.

- **LO3: Be able to present concept ideas for repurposed developments**

Key Learning:

- M3: Revise business proposal for the chosen development project incorporating stakeholder feedback.
- D2: Evaluate the success criteria that would be used to judge the sustainability of the chosen development project.

Assessment: Unit 17 Internal and External Moderation.

CTEC Level 3 ICT Year 13 Curriculum Map

Term Four Unit 8

Topics:

- **LO1: Understand the project life cycle**

Key Learning:

- *P1: Explain the different phases within an identified project life cycle.*
- *D1: Evaluate the importance of each phase of the identified project life cycle.*
- *P2: Describe different project methodologies.*
- *M1: Compare the features and benefits of different project methodologies.*
- LO2: Be able to initiate and plan projects

Key Learning:

- *P3: Complete the documentation for the initiation phase for an identified project.*

Assessment: Marking of completed sections of coursework.

Term Five Unit 8

Topics:

- **LO2: Be able to initiate and plan projects**

Key Learning:

- *D2: Create a Business Case to support an identified project.*
- *P4: Develop a project plan for the identified project.*
- *M2: Carry out and document a phase review of the project plan.*

- **LO3: Be able to execute projects**

Key Learning:

- *P5: Follow the project plan and conduct a phase review of the identified project.*
- *D3: Prepare a project closure report based on the execution phase review of the identified project.*

Assessment: Marking of completed sections of coursework.

Term Six Unit 8

Topics:

Unit 8

- LO4: Be able to carry out project evaluations

Key Learning:

- *P6: Evaluate feedback from client and team in relation to the project.*
- *M3: Recommend potential improvements for future projects based on the outcome of the project evaluation.*

Assessment: Unit 8 Internal and External Moderation.