

UNIT 3BAIT

Unit description

The unit description provides the focus for teaching the specific unit content.

The focus for this unit is **digital technologies within a global society**. Students focus on the production of a digital product for a particular client. Students undertake the management of data as well as an appreciation of the social, ethical and legal impacts of digital technologies within a global community.

Unit content

It is recommended that students studying Stage 3 have completed Stage 2 units.

This unit includes knowledge, understanding and skills to the degree of complexity described below. This is the examinable content of the course.

Managing data

Knowledge

- management of data
 - security concerns
 - disaster recovery plan
 - audit trail
 - types of backup techniques and archiving of data
 - full
 - differential
 - incremental
 - daily
 - data storage
 - data warehouses
 - data mining
 - data marts
 - data in the cloud
- processing of data considering
 - security of data through the use of
 - passwords
 - firewalls
 - biometrics
 - anti-virus software
 - digital signatures
 - encryption
- online data management
 - data in the cloud
- user-generated content
- Hypertext Markup Language File (.htm/.html)

- Web 2.0
- Content Management Systems (CMS)
- transfer of data between different Operating System (OS)
 - compatibility relevant to mobile applications
- purpose of World Wide Web Consortium (W3C)
- validation techniques for online forms
 - use code validation.

Skills

- critically analyse sources of information for verifiability, accuracy and currency
- test and evaluate online applications for
 - browser compatibility
 - apply W3C as relevant.

Impacts of technology

Knowledge

Legal

- data and information security related to
 - personal information
 - sensitive information

Ethical

- code of conduct
 - flexible work hours
 - employer's monitoring of work emails, internet access and computer use
 - email use
 - internet
 - privacy
- online censorship of information in a global context
- cloud computing
 - confidentiality
 - sensitivity of documents
 - level of accessibility
 - availability of online applications

Social

- impact of digital technologies on accessing global markets
 - productivity
 - access
 - outsourcing
 - impact of Web 2.0/Web 3.0.

Networks

Knowledge

- network protocols
 - Transmission Control Protocol/Internet Protocol (TCP/IP)
 - Hypertext Transfer Protocol (HTTP)
 - Hypertext Transfer Protocol over Secure Socket Layer (HTTPS)

- Wireless Application Protocol (WAP)
 - 802.11x (wireless)
- 802.3 (Ethernet)
- network security measures
 - application
 - firewalls
 - passwords
 - physical security.

Skills

- design and justify LANS.

Application skills

Knowledge

- purpose of W3C conventions
- digital communication for education.

Skills

- use available functions of online software
- use online tools for tutorials/learning
- use forms for online data collection.

Project management

Knowledge

- service level agreements
 - purpose
 - availability of service
 - type of services
- outsourcing versus in-house production (local and global)
- outsourcing data management
- software evaluation
 - usability.

Skills

- apply project management techniques to meet client requirements
- apply a design process to create a digital project
- use appropriate tools to evaluate the effectiveness of the digital project in accordance with the design brief
 - surveys
 - client feedback
 - self-reflection.

Assessment

The three types of assessment in the table below are consistent with the teaching and learning strategies considered to be the most supportive of student achievement of the outcomes in the Applied Information Technology course. The table provides details of the assessment type, examples of different ways that these assessment types can be applied and the weighting range for each assessment type.

Weighting Stage 3	Type of assessment
40%	Production (Projects) Students research ideas and processes to produce quality projects. Management of a range of production processes, evaluations and modifications should be undertaken as necessary. Students should be able to demonstrate competence in the use of digital technologies, skills and processes.
30–40%	Response Students apply their knowledge and skills in researching, analysing and responding to a series of stimuli or prompts. Students may also provide a response and/or analysis of digital technology products and/or trends.
20–30%	Examination Students apply their knowledge and skills using technical terminology to analyse, interpret and answer questions in examination settings. Types of questions include multiple choice, short answer, extended answer and production.