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1 Introduction

The Information Technology Curriculum Framework has been developed to provide students with the opportunity to gain credit towards the NSW Higher School Certificate and credit towards national vocational qualifications in Information Technology under the Australian Qualifications Framework. The framework is based on the national Information Technology Training Package (ICA99).

This industry curriculum framework incorporates all Higher School Certificate Information Technology VET courses whether:

- delivered by schools
- delivered by TAFE colleges or
- delivered by other Registered Training Organisations (RTOs) on behalf of schools or TAFE colleges

This document, the Information Technology Curriculum Framework Stage 6 Support Document contains materials and advice which is intended to assist teachers and trainers in the implementation of courses within the framework and in the assessment of student competency. It must be read in conjunction with Parts A and B of the syllabus.

Part A of the syllabus contains general advice about the Information Technology Curriculum Framework and describes course structures and requirements, including work placement. For HSC accreditation the delivery of all courses in Information Technology must comply with the structures and requirements described in Part A.

Part B of the syllabus contains the text of the units of competency from the Information Technology Training Package that comprise the AQF Certificate II in Information Technology. Part B must be used in the delivery of 120, 180 and 240 indicative hour HSC courses in Information Technology. Units of competency in Information Technology Specialisation Studies should be accessed directly from the Information Technology Training Package.

The syllabus documentation for the Information Technology Curriculum Framework also includes a competency record for recording assessment activities and student achievement of competency. The use of the competency record is recommended but is not mandatory. RTOs may choose to design an alternative form of competency record or use versions produced by industry bodies.

Industry Curriculum Framework Documentation

Support materials for this curriculum framework include this support document and a resource list. The Board has also developed the Stage 6 Industry Curriculum Frameworks Support Document for Students with Special Education Needs.

Parts A and B of the syllabus are available in hard copy from the Board of Studies and may also be accessed on the Board’s website (http://www.boardofstudies.nsw.edu.au). The Competency Record, the support documents and the resource list may be accessed through the website.
2 Teaching Programs

2.1 General Information

Teaching and assessment programs for courses in Information Technology Curriculum Framework can be developed using a number of different approaches.

These include:
- identifying a theme which is common to several units of competency and programming teaching and learning activities which address this theme
- devising a project, experience or event which requires students to learn and use a number of competencies
- programming individual units of competency sequentially
- a combination of any of the above.

Each approach has merit depending on the nature of particular competencies, access to facilities, equipment, resources and work places, and the needs and experience of the student group and individual students.

When considering these approaches, teachers and trainers should keep in mind the following general principles.

- VET courses focus on the achievement of workplace competence. They are intended to equip students with the skills and knowledge required to perform workplace roles to the standard expected in industry. Competence incorporates all aspects of work performance including communication, problem solving and the capacity to apply skills and knowledge in both familiar and new situations as well as industry specific skills.
- Students must be given the opportunity to develop skills over time and have multiple opportunities to demonstrate that they possess the necessary combination of skills and knowledge.
- Students must have the opportunity to develop and practise skills in a workplace setting.
- Assessment of competence involves the assessment of skills and knowledge combined. An integrated or holistic approach to assessment is encouraged in line with the concept of competence as the integration of a wide range of skills, knowledge and attitudes. An integrated approach to course delivery will facilitate integrated competency assessment.

On the basis of these principles, it is recommended that teachers and trainers develop teaching and learning programs that allow for the integrated development of several elements and/or units of competency simultaneously. Where this is not possible, learning activities developed for individual units of competency should seek to integrate elements within the unit and to address the linkages to other units identified in the training package and in the syllabus.

Where possible, assessment should be included as an integral part of training.

The following sections provide some advice and examples of various approaches to programming. The Appendix to this document contains two projects that can be used to assist students achieve required competencies.
2.2 Sequence of Delivery

Neither the Information Technology Curriculum Framework nor the Information Technology Training Package prescribes a particular delivery sequence for individual units of competency or for related groups of units of competency. Refer to the Information Technology Curriculum Framework Part A for information on course structures.

The sequencing of a teaching program for a particular course is thus a matter of professional judgement based on the existing skills and experience of students, student interest, access to facilities including workplaces and the timing of work placement.

The syllabus and training package do, however, provide some guidance:

- ICAITTW001B Work effectively in an information technology environment and ICAITU004B Apply Occupational Health and Safety Procedures provide underpinning skills and knowledge that prepare a student for work placement.
- The underpinning knowledge and skills listed for each unit may be based on the content of another unit eg ICAITU005B Operate computer hardware and ICAITU006B Operate computer software contain the underpinning skills and knowledge necessary to achieve other technical units.

Teachers might also consider how students could draw on skills and experiences in other HSC subjects to develop competencies in Information Technology. Teachers may, for example, wish to liaise with teachers of HSC English in aspects of communication skills.

2.3 An Integrated Approach to Programming - Using a Theme

Theme
Producing word processed documents

Rationale
This theme has been designed to enable students to produce simple documents using a word processing package while at the same time providing the opportunity to develop competence in keyboard use and simple file/desktop management.

Unit/Element codes
- ICAITU005B.3 Use keyboard and equipment (partial achievement only)*
- ICAITU006B.1 Use appropriate software (partial achievement only)**
- ICAITU006B.2 Access, retrieve and manipulate data (partial achievement only)**
- ICAITU006B.3 Access and use help (partial achievement only)**
- ICAITU006B.4 Use keyboard and equipment (partial achievement only)*
- ICAITU012B 1 Design documents to meet organisational requirements (partial achievement only)**
- ICAITU012B 2 Access, retrieve and manipulate data (partial achievement only)**

* Assessment of these elements would generally require the candidate to be able to type to specified speed and accuracy - it is anticipated that competence would need to be developed over a longer period than the 10-15 hours suggested for this theme (speed and accuracy could be measured during the delivery of this theme as a means of establishing a baseline for students, then re-tested at a time in the future).

**Assessment of these elements of competency must confirm the ability to produce several workplace documents utilising a minimum of three different function desktop applications (eg word processing, spreadsheet and database); within each desktop application a wide range of features are used.
Suggested Time Allowed
10 - 15 hours

Resources

• General
  • Training package support materials for ICAITU006B
  • National Information Technology Module ITG201 - Using Computer Networks
  • Administration Training Package - Training package support materials for the office technology competencies
  • National Office Skills Module NOS116 - Keyboarding Techniques and Operations
  • National Office Skills Module NOS222 - Word Processing Introduction
  • National Office Skills Module NOS304 - Word Processing Advanced Operations
  • Computer manuals and tutorials
  • Materials developed by Registered Training Organisations
  • Various commercially produced materials including textbooks and computer tutorials
  • National Information Technology Module ITH302 - PC User Fundamentals
  • TAFE NSW Module 3625L - Hardware/software portfolio
  • Computing industry magazines and journals
  • Computer vendor advertising materials
  • Computer manuals and tutorials
  • Materials developed by Registered Training Organisations

• Print-based resources
There is a large range of third party books dedicated to introducing users to specific word processing packages. Many of these books take a 'course' approach and are therefore ideally suited to self-paced learning. Keep a collection of software user guides and third party books that can be accessed by students to solve problems associated with the use of the software.

Collect a variety of documents such as faxes, letters, memos, short reports and notices on which students can re-create or model their own documents.

• Internet-based resources
There are a number of Internet tutorials for the various versions of Word for Windows, WordPro and WordPerfect. Use a search engine and enter the name of the software followed by the word tutorial followed by any other relevant search criteria.

Assessment Strategies

Evidence of competence could include:

• Products Submitted
  Students produce and submit a range of business documents (minimum 3) using a commercially available word processing package. These documents could include:
  − an internal memo
  − a business letter
  − a fax
  − a short report (2 to 3 pages)
  The format and accuracy of final documents must meet commercial standards.

• Demonstration/Observation
  Students must demonstrate correct occupational health and safety practices and appropriate use of equipment and program features. They must also demonstrate the capacity to produce workplace documents to acceptable industry/enterprise standard.

Students should add documents that they produce to their portfolio.
### Sample Program: Producing Word Processed Documents

<table>
<thead>
<tr>
<th>Learning outcomes</th>
<th>Elements of Competency / Performance Criteria</th>
<th>Teaching Strategies/Learning Experiences and Resources</th>
<th>Possible Assessment Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Load and exit word processing application</td>
<td>ICAITU006B.2 ICAITU012B.2</td>
<td>Start and exit word processing application package. Students should identify the name and version of the package being accessed.</td>
<td>Demonstration/Observation</td>
</tr>
<tr>
<td>Create simple documents</td>
<td>ICAITU006B.1 ICAITU006B.4 ICAITU005B.3 ICAITU012B.1</td>
<td>Students should create a number of simple 1 to 3 page documents that could include: • letters • memos • reports. Students may want to reproduce existing documents at the outset so that they are focussing on text production.</td>
<td>Demonstration/Observation</td>
</tr>
<tr>
<td>Save documents in designated location</td>
<td>ICAITU006B.2 ICAITU006B.1 ICAITU012B.2</td>
<td>Save documents on: • floppy disks • local hard drive • network drive.</td>
<td>Demonstration/Observation</td>
</tr>
<tr>
<td>Close documents</td>
<td>ICAITU006B.2 ICAITU012B.2</td>
<td>Close and save documents as required</td>
<td>Demonstration/Observation</td>
</tr>
<tr>
<td>Locate and open documents</td>
<td>ICAITU006B.2 ICAITU012B.2</td>
<td>Locate documents on: • floppy disks • local hard drive • network drive.</td>
<td>Demonstration/Observation</td>
</tr>
<tr>
<td>Modify documents</td>
<td>ICAITU006B.2 ICAITU006B.4 ICAITU005B.3 ICAITU012B.1</td>
<td>Use delete, backspace, cut, copy, paste and alpha-numeric keys to modify documents according to specifications. The concept of clipboard should be explained or reinforced at this point.</td>
<td>Demonstration/Observation</td>
</tr>
<tr>
<td>Spell check documents</td>
<td>ICAITU006B.1</td>
<td>Use the spell checker in conjunction with manual proofreading. Discuss the limitations of spell checkers.</td>
<td>Demonstration/Observation</td>
</tr>
<tr>
<td>Learning outcomes</td>
<td>Elements of Competency / Performance Criteria</td>
<td>Teaching Strategies/Learning Experiences and Resources</td>
<td>Possible Assessment Strategies</td>
</tr>
<tr>
<td>-----------------------------------------------------------------------</td>
<td>-----------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------</td>
</tr>
<tr>
<td>Apply basic formatting to documents</td>
<td>ICAITU006B.1</td>
<td>Format text using bold, italics and underline. Align bullets to text. Change page margins and orientation.</td>
<td>Demonstration/Observation</td>
</tr>
<tr>
<td>Use help (on-line and other) to assist in the use of some functions</td>
<td>ICAITU006B.3</td>
<td>Students to use help to find out how to perform tasks such as:</td>
<td>Demonstration/Observation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• inserting hard page breaks</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• adding page numbers to a document</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• creating a table</td>
<td></td>
</tr>
<tr>
<td>Describe how additional help can be obtained in a workplace setting</td>
<td>ICAITU006B.3</td>
<td>Discuss the concept of a help desk, why it may be necessary to use a help desk, the type of person who might work on a help desk</td>
<td>Discussion and questioning</td>
</tr>
<tr>
<td>Describe a range of tasks (applications) that can be undertaken using</td>
<td>ICAITU006B.1</td>
<td>Discuss some of the following:</td>
<td>Discussion</td>
</tr>
<tr>
<td>a word processing package</td>
<td></td>
<td>• reports</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• mail merge</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• labels</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• notices, newsletters etc</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• letters, faxes, memos</td>
<td></td>
</tr>
<tr>
<td>Print preview and print documents</td>
<td>ICAITU006B.2 ICAITU012B.2</td>
<td>Use the print preview facility, and, when satisfied, print the document. Discuss the cost of printing, as well as the role of recycled paper.</td>
<td>Submit finished documents</td>
</tr>
<tr>
<td>Identify OH&amp;S issues associated with the production of word processed</td>
<td>ICAITU006B.2</td>
<td>Discuss issues such as:</td>
<td>Discussion and questioning</td>
</tr>
<tr>
<td>documents</td>
<td></td>
<td>• adjustable work station furniture</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• light and glare</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• pause gymnastics</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• noise etc</td>
<td></td>
</tr>
</tbody>
</table>

This program could be adapted for learning associated with other application software packages such as spreadsheets, databases, presentation packages or graphics packages. The units of competency ICAITU006B and ICAITU012B can only be achieved once a candidate has demonstrated competence with a minimum of three application software packages.
2.4 An Integrated Approach to Programming - Using Projects, Experiences and Events

Project Planning

The use of projects, experiences and events allows for the concurrent development and assessment of a number of units and elements of competency. They may be used for the full delivery of particular competencies or to supplement other learning and assessment activities.

The following steps may provide a guide to planning and organising such a strategy.

Step 1 Based on your knowledge of the course you intend to deliver, the interests and experience of your students and available resources, devise a project or event which relates to a number of competencies.

Step 2 Using Part B of the syllabus, map components/activities/deliverables of the project to particular units/elements ensuring that there is opportunity for students to develop competency and demonstrate the performance criteria for each element included. Where necessary, modify the project specifications to address elements/performance criteria.

Step 3 Using the information from Step 2, list the elements of competency and identify appropriate assessment strategies. Plan to use a range of assessment instruments over time to validate the evidence collected. Also try to use each assessment opportunity to assess and record evidence of competence for a number of elements. In this way overassessment can be avoided.

Step 4 Draw up a programming sheet to summarise this information. You may or may not wish to define learning outcomes for components of the project or include a schedule. The following template is provided as an exemplar.

Two sample projects for courses in Information Technology are included as an Appendix to this support document.
<table>
<thead>
<tr>
<th>Timing</th>
<th>Learning outcomes</th>
<th>Unit/Element of Competency</th>
<th>Project Specifications Teaching Strategies/Learning Experiences</th>
<th>Possible Assessment Strategies</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
</tbody>
</table>
2.5 Programming individual units of competency

When programming individual units of competency
- ensure that all elements of competency are addressed
- ensure that HSC Requirements are addressed
- stress links with other units
- as far as possible develop integrated assessment tools and events

Sample program for an individual unit of competency

Unit title Work effectively in an information technology environment

Unit code ICAITTW001B

Suggested time allowed
15 - 20 hours

Unit Descriptor
This unit defines the competency required to assimilate into the information technology department. This is fundamental to working in an organisation.

Resources
- General
  - Non-endorsed materials for ICAITTW001B
  - TAFE NSW Module 3624A - Information Technology in the workplace
  - TAFE NSW Module 3624K - Work and the work environment
  - Enterprise/industry employment documents
  - Occupational Health and Safety legislation and related documents
  - Computing Industry magazines and journals
  - Computer vendor advertising materials
  - Computer manuals and tutorials
  - Materials developed by Registered Training Organisations
  - Various commercially produced materials including textbooks and computer tutorials

- Print-based resources

Scannell, David (1996), *The Information Technology Industry*, Eastern House


- Internet-based resources

http://www.dcita.gov.au The home page of the Federal Department of Communications, Information Technology and the Arts

http://www.oit.nsw.gov.au The home page of the NSW Office of Information Technology
Possible Assessment Strategies

• **Portfolio**
  Students develop and submit a portfolio based on a case study or work place visit. The portfolio contains a range of items including:
  - job descriptions for a selection of IT positions (minimum 3) showing main responsibilities and typical qualifications/experience required for the role
  - organisation chart of an IT department (where that department contains at least 5 staff)
  - a description of the services provided to the organisation by the IT staff/department
  - a selection of IT-related policy documents dealing with issues such as security, confidentiality, software piracy and client services.
  - an overview of the IT infrastructure supported by the IT staff, including hardware and software - this could be a schematic labelled diagram.

• **Presentation**
  Students develop and deliver a small group presentation describing a 'week in the life' of an IT department. The presentation is based on either the case study or workplace visit used for the portfolio.

• **Interview**
  Students are interviewed with questions/discussion to focus on:
  - careers and career paths in the IT industry.
  - typical client service scenarios with an emphasis on the relationship between the IT function and other parts of the organisation.
  - workplace conduct in relation to policies and practices such as EEO and OH&S, and
  - current and future uses of IT in the workplace.
Sample Teaching and Learning Program - ICAITTW001B Work effectively in an information technology environment

<table>
<thead>
<tr>
<th>Teaching Strategies/Learning Experiences and Resources</th>
<th>Elements of Competency / Performance Criteria</th>
<th>Possible Student Activities</th>
</tr>
</thead>
</table>
| - Guest speaker (IT manager or senior IT staff). Their brief would be:  
  i) to describe the IT infrastructure at their organisation as well as the role that their IT department plays in supporting their organisation, and  
  ii) to provide some detail about the job roles within the department.  
  *Guest speakers could be invited from a local government department, a manufacturing organisation, a hospital, a university or other medium to large organisation - this could also be arranged through an on-line chat.*  
- Students could supplement this talk with discussion about how the computers in their school/college are managed and maintained.  
- Students to collect role position statements for jobs such as help desk officer, LAN administrator, computer support officer, systems administrator and develop a matrix showing the role, the main responsibilities, qualifications and/or experience, and main technologies associated with the role. | 1.1 Roles of the key players in the information technology organisation are determined and briefly explained.  
2.1 Roles of the information technology functions with the organisation are briefly explained | - Students should be encouraged to ask questions, to take notes and to understand the service provided by the IT department - any notes, hand-outs or web page print-outs should be added to the portfolio.  
- Interview questions could be based on discussion.  
- Add matrix to the portfolio. |
<table>
<thead>
<tr>
<th>Teaching Strategies/Learning Experiences and Resources</th>
<th>Elements of Competency / Performance Criteria</th>
<th>Possible Student Activities</th>
</tr>
</thead>
</table>
| Students to gain familiarity with the network/system they use on a daily basis in terms of:  
  - hardware  
  - operating system  
  - application software  
  - other service provision (e.g., Internet)  
  - cabling  
  - system maintenance/administration.  
  
  Students should create a network diagram of the network they are using with appropriate symbols and labels to adequately represent the network.  
  
  *If students are currently in a work placement, they should also undertake a similar exercise.* | 3.1 Information technology equipment/software and operating system supported by the organisation are identified  
  3.2 Equipment, location, and service requirements are identified according to the organisational requirements | • Add network diagrams to the portfolio.  
• Interview questions can be based on the school network. |

- Obtain a selection of different IT department policies and distribute to students (these could be obtained from own/other schools as well as businesses). Develop a series of discussion questions built around why certain policies have been stated.  
- Students, in small groups, students to develop their own policies and procedures for a hypothetical business.  
- Explain and discuss why certain policies and procedures are considered important in respect of an organisation's overall mission statement and core values.  
  
  1.3 Policies and procedures are complied with, as directed by supervisor.  
  2.2 Organisation is promoted in a positive way.  
  
  • Policies and procedures to be added to portfolio.
<table>
<thead>
<tr>
<th>Teaching Strategies/Learning Experiences and Resources</th>
<th>Elements of Competency / Performance Criteria</th>
<th>Possible Student Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Students to develop a small database (electronic or otherwise) of computing IT courses identifying: - available qualifications, - entry requirements, - length of course, - course summary, and - likely career prospects/outcomes</td>
<td>1.2 Career choices and options are determined.</td>
<td>Add findings to the portfolio.</td>
</tr>
<tr>
<td>• Students should look at a small selection of jobs within the IT industry such as: - PC/network support jobs, - analyst/programming jobs, and - database administration jobs and determine the training and career path necessary to prepare for a given job and future positions to which a given job may lead.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3 Assessment

3.1 Industry Curriculum Frameworks - The Purposes of Assessment

Assessment for the Higher School Certificate VET Framework has two distinct purposes.

a) Assessment for the Australian Qualification Framework (AQF) - Competency based:
   • Applies to all courses within frameworks.
   • Vehicle for industry recognition.

b) Assessment for the University Admissions Index (UAI):
   • Optional for the 240 hour course only.
   • Written HSC examination.

3.2 Assessment for AQF Certification

Assessment for AQF Certification:
   • is competency based.
   • must be reliable, flexible, fair and valid. Judgements are made on the basis of evidence, which may be in a variety of forms.
   • must be conducted by qualified assessors and be consistent with Training Package Assessment Guidelines.
   • results in students being considered competent or not yet competent.

An integrated or holistic approach to competency based assessment is encouraged.

3.2.1 Principles for assessment

This section is an extract from the Information Technology Training Package

Under no circumstances should the assessment be conducted in a way that does not require the learner to demonstrate the skills covered by the competencies.

The following principles of assessment should be followed when conducting any assessment, and will be the benchmarks for the ongoing review of the assessment system.

Transparency of process - Prior to the assessment, both the assessor and the candidate should be aware of what will be assessed and the process of the assessment. The individual being assessed should also be aware of the Registered Training Organisation's appeals process in case they feel they have been unfairly assessed.

Validity - assessments are valid when they assess what they claim to assess. Assessors need to be fully aware of what is to be assessed. Assessors will have access to clearly defined competency standards which detail the evidence required to demonstrate that the performance criteria have been met.

Reliability - assessment is applied consistently from employee to employee and context to context. The methods and procedures employed in an assessment ensure that different individuals in different contexts can demonstrate the requirements of the competency standards. There should be consistency in the interpretation of evidence.
Flexibility - assessment needs to be flexible so that it incorporates the range of environments and organisations involved in assessment. Flexibility in assessment is also required for different forms of knowledge and skills that underpin performance.

Fairness - assessment is fair if it does not disadvantage anyone. Individuals undertaking assessment should clearly understand what is to be assessed and the process for that assessment. The assessment should place all individuals on equal terms and rely on evidence of performance not relative to individual ability.

Practicality - the assessment must not be onerous financially or in terms of time to those involved in the process. It must be practical for both individuals and organisations wishing to be involved in an assessment.

For the assessment system to work efficiently, the process must be coordinated with each participant being aware of his or her role.

3.2.2 Programming Assessment

An integrated approach to assessment is encouraged in line with the concept of competence as the integration of a wide range of skills, knowledge and attitudes. This means that a number of elements of competency or several units of competency are assessed together.

This approach also reduces the danger of overassessment, which can easily occur if units and elements of competency are assessed individually.

In addition, it is preferable that assessment be integrated with training delivery. For this reason, the sample teaching programs shown or referred to in Section 2 include assessment strategies.

Some forms of assessment will be ongoing. Evidence of competence gathered through the demonstration and observation of student performance in the classroom, in the workplace or in a simulated work environment will provide one means of ongoing assessment. Questioning of students in the course of teaching and learning activities, self and peer assessment and reports from workplace supervisors will also allow evidence of competence to be gathered on an ongoing basis.

Other evidence may be collected through specific assessment tasks and events such as projects and assignments, written and practical tests and role plays and simulations.

It is advisable for teachers and assessors to decide in advance on the forms of assessment and evidence gathering methods to be used for various units/groups of units and devise a planned program of assessment.

Where specific assessment events are to be used these should be scheduled well in advance, keeping in mind the assessment demands placed on students in their other HSC subjects. As with other HSC courses, students should be informed in writing of school (or other RTO) requirements for assessment in each course.
3.3 The HSC Examination

The HSC Examination

- is independent of competency based assessment requirements for AQF qualifications
- is optional for students of Information Technology (240 indicative hours) and intended for Universities Admission Index (UAI) purposes only
- is a two hour written paper.

3.3.1 Internal Examinations

Teachers and trainers should bear in mind that students enrolled in Information Technology (240 indicative hours) may choose to undertake the optional written HSC examination. These students should have the opportunity to practise appropriate written tasks under examination conditions. As far as possible internal examinations set for this purpose should reflect the specifications and conditions of the HSC examination.

For this reason, it is highly recommended that students sit at least for a trial HSC Examination.

A trial HSC Examination is also recommended because of the possible need for teachers to provide the Board of Studies with estimates of student examination performance. This may be required where a student lodges an illness/misadventure appeal relating to the HSC Examination in Information Technology (240 indicative hours).

Note that a trial HSC or other internal examination may also be used as a source of evidence of competence in some units and elements of competency and may therefore contribute to the competency based assessment program.

3.4 Recording Assessment

It is advisable that a competency record be maintained containing information about both units and elements of competency. The Information Technology Competency Record developed by the Board of Studies as part of the syllabus documentation may be used for this purpose. Alternatively, Registered Training Organisations (RTOs) may use records designed by themselves or by industry bodies.

Schools and other RTOs will be required to report to the Office of the Board of Studies on units of competency for which students have been assessed as competent.

A sample record sheet for an individual unit of competency from the Board of Studies competency record is shown below.

The competency record also contains the following pro formas:

- forms for recording student, school, RTO and work placement employer details
- a summary list of units of competency for each available (or partly available) AQF qualification
- a verification statement
## Unit of Competency

**ICAITS020B Install and optimise system software**

<table>
<thead>
<tr>
<th>Element of Competency</th>
<th>Competent (Assessor Signature)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Determine operating systems</td>
<td></td>
</tr>
<tr>
<td>2. Obtain operating system</td>
<td></td>
</tr>
<tr>
<td>3. Install and optimise operating system</td>
<td></td>
</tr>
<tr>
<td>4. Provide instruction to meet new software requirements</td>
<td></td>
</tr>
</tbody>
</table>

### VERIFICATION OF ACHIEVEMENT OF UNIT OF COMPETENCY

I, _________________________, of __________________________
(name of assessor)    (Registered Training Organisation)

**certify that**

__________________________
(name of student)

has demonstrated competence in the unit of competency

*ICAITS020B Install and optimise system software*

Signature ______________________ Date ______________________
4  Work Placement

The following principles have been formally endorsed by the Board of Studies for HSC VET courses.

4.1  Principles Underpinning Work Placement in the Higher School Certificate

Preamble
Industry curriculum frameworks have been developed to provide students with the opportunity to gain credit towards the NSW Higher School Certificate and credit towards national vocational qualifications under the Australian Qualifications Framework.

Industry curriculum frameworks are derived from national training packages. Courses within the frameworks specify the range of industry-developed units of competency from the relevant training packages and have been identified as suitable for the purposes of the Higher School Certificate. VET courses in industry curriculum frameworks are aligned to national vocational qualifications.

Although not all training packages mandate work placement it is a mandatory HSC requirement of each course within the frameworks. Indicative hours have been assigned to the work placement requirement for each course.

Learning in the workplace serves a number of purposes including enabling students to:
• progress towards the achievement of industry competencies
• develop appropriate attitudes towards work
• learn a range of behaviours appropriate to the industry
• practise skills acquired off the job in a classroom or workshop
• develop additional skills and knowledge, including the Key Competencies.

Under some circumstances, students' part-time work in an appropriate workplace may be used to fulfil work placement requirements. For further details, teachers and principals should consult the Board of Studies’ Assessment, Certification and Examination (ACE) Manual or relevant Board of Studies’ Official Notices.

The following principles should be read in conjunction with any systems documentation relating to work placement, for example the Industry Curriculum Frameworks Information Package.

Principle 1
Work placement must have a clearly articulated and documented purpose. The structure of the work-based learning experience needs to be planned and developmental.

A range and number of purposes are possible including, for example,
• learning about a particular industry, workplace culture and career opportunities
• practising skills learnt off the job
• developing new skills
• improving work related skills
• developing skills including key competencies such as teamwork, using technology, problem solving
• achieving entry level competencies
• achieving workplace performance of particular competency standards
• assessing in a realistic environment or allowing for holistic assessment.
• providing opportunities to build skills in a developmental manner from the simple to the complex
• providing opportunities for the learner to reflect upon the workplace learning experience in the context of individual current knowledge and understanding.
• encouraging students to undertake further education and training.

**Principle 2**
*The scheduling of the work placement should reflect student readiness and should complement off-the-job learning programs.*

The scheduling of the work placement should take account of:
• whether or not students are workplace ready in terms of the competencies they will need to develop and demonstrate in the workplace
• how the timing of the work placement links to overall course planning
• the degree of flexibility available at both the workplace and the school
• how the alignment of both on and off the job competencies can be best achieved.

An individual work placement program focussing on a developmental approach should be negotiated with the workplace supervisor/employer. This approach should focus on students moving from simple to more complex tasks. Dependence on supervision should reduce over time as students move towards greater independence in the workplace. The ultimate goal of a work placement should be competence and autonomy in the range of tasks required for the job being undertaken.

**Principle 3**
*Work placement should be relevant to the VET courses being undertaken.*

The 'real' tasks being undertaken in the workplace should complement the tasks and learning being undertaken by the student in their VET courses at school. Work placement may also provide students with the opportunity of having learning outcomes/units of competency assessed in the workplace by accredited trainers and assessors.

**Principle 4**
*Work placement can provide opportunities for work-based assessment*

Not all industry curriculum frameworks specify that it is mandatory for competencies to be assessed in the workplace. Assessment events should relate to overall course planning and the purpose of the work placement. In a competency based course, assessment of competencies is criterion-referenced. This means that a participant’s performance is judged against a prescribed standard – not against the performance of other participants.

The purpose of assessment is to judge competence on the basis of performance against the performance criteria set out under each element of competency. A participant is judged either competent or not yet competent.

Competency based assessment is based on the requirements of the workplace. Competence incorporates all aspects of work performance, including problem-solving and the capacity to apply skills and knowledge in both familiar and new situations. Assessment of competence involves the assessment of skills and knowledge combined.

Assessors should adopt an integrated or holistic approach to assessment. This means that a number of elements of competency or even several units of competency are assessed together. This method of assessment is encouraged in line with the concept of competence as the integration of a wide range of skills, knowledge and attitudes.
4.2 Work Placement - General Information

Students have the opportunity to develop a range of technical and interpersonal competencies from the Information Technology Curriculum Framework while undertaking their work placement. However, work placement must be well planned and carefully integrated into the teaching program to enhance the outcomes for students. Planning should take into consideration:

- the potential range of organisations in which students are likely to find work placement,
- the information technology needs of the organisations that have been identified,
- the competencies that students should achieve during their work placement, and
- the competencies that students should have achieved before commencing work placement.

In practical terms, work placement should be a partnership between student, teacher and workplace supervisor. Accordingly, it may be possible to negotiate a project based work placement for each student. Projects could be based on real work requirements such as:

- installing new work stations
- installing/upgrading new software or hardware peripherals
- managing hardware or software inventory
- undertaking routine maintenance tasks
- testing hardware or software
- undertaking simple repairs
- developing or modifying simple templates
- configuring workstations to specification.

The following workplaces or workplace settings should be investigated as being potentially suitable for work placement. These include:

- information technology (computer) vendor companies
- computer repair workshops
- retail outlets where computers may need to be set up and/or configured
- information technology departments in government departments or enterprises such as hospitals, local government facilities or libraries
- small to medium enterprises with an information technology infrastructure in place such as accounting firms, advertising agencies or manufacturing sites.

For students in rural and isolated settings it may be possible to fulfil workplace requirements on a property where computers are used to 'run the business' or even in a teleworking environment. It is expected that in these circumstances students will be properly supervised and provided with appropriate guidance.

Students are strongly encouraged to maintain a portfolio to which they should add examples of the work they have produced during the course, including that produced during their work placement. Students, however, should check with their supervisor before adding any items they have produced during work placement, in line with any organisational policies or codes of practice. In some instances, students may be required to sign a confidentiality agreement (or similar document). The need for this requirement should be established and attended to before the student commences work placement. If in doubt about such documents, legal advice should be sought.

Note that up to fifty per cent of the indicative hour requirements for work placement for courses in Information Technology may be met in a simulated workplace environment.
Appendix - Student Projects

This appendix includes two projects that may be used in full or in part to assist in the teaching and assessment of courses in information Technology.

Project A

Aim
The broad aim of Competency Standards Integrated Project A is to:
- demonstrate the achievement of the following units of competency for Information Technology
  ICAITTWO01B
  ICAITTWO02B
  ICAITDO03B
  ICAITUO04B
  ICAITUO05B
  ICAITUO06B
  ICAITUO07B
  ICAITSO08AB
- develop knowledge, skills, values and attitudes of acceptable practice in a workplace context
- develop an understanding of standards that apply to tasks undertaken in a workplace context
- develop knowledge, skills and attitudes to produce workplace documents of acceptable standard including internal memoranda and reports

Prerequisites
Nil

Resources
Students will need access to
- minimum - a personal computer 486 processor or equivalent attached to a network and with access to a printer
- commercially available business application software such as one of the 'office suites'
- a workplace setting in which they can participate in group (team) activities
- workplace documents including fax/memo templates, code of conduct, mission statement and associated policies, other policy and work practice documents such as Occupational Health and Safety procedures.

Project outcome
Students are to write a report on their experiences in a workplace setting and describe how Information Technology is used in that workplace setting. Students will need to provide evidence that they have received and acted upon instructions, have demonstrated appropriate behaviour in a workplace setting, have used a computer in a workplace setting, have taken due care of equipment and files, and have observed and implemented correct procedures in the use and documentation of inventory.

The project is divided into parts corresponding to groupings of units of competency. At each part, evidence is collected to demonstrate how the student has achieved units of competency.

It is expected that students will receive appropriate assistance from others during the course of the project.
Nominal hours
It is anticipated that the project may take 30 hours to complete.

Implementation and student submission
Students should submit their work as each part is completed. These should be added to a student's portfolio. When all parts have been completed successfully and the student has been deemed competent on the basis of the evidence they have provided, the portfolio can be returned to the student.

It is NOT essential for assessment to occur in any particular order or to complete parts/tasks in any specific sequence. The order in which the parts, tasks and evidence statements are presented in this document serve as an implementation guide ONLY. The timetable for the submission of evidence should be determined by the teacher.

Recording of Competencies
Achievement of competencies should be recorded in the Information Technology Competency Record. This can be done as each part is completed.
Project Specifications- Project 1

Task 1 (AT1) Understanding the workplace

Learning outcomes

- Describe the characteristics of a workplace

Location

Workplace setting

Associated competencies

ICAITTWO01B

Background

Each workplace is different. Some of the reasons these differences exist might be because
of size, location, the type of work carried, the customers/clients, the staff and management
and the technology that is used.

Task details

AT1.1 Write a short report about your workplace which identifies the following:

- the name, address, telephone and fax number of the workplace
- a brief statement explaining the work carried out at that workplace
- a description of the kinds of customers/clients of the workplace
- the number of people employed at that workplace
- the mission of the workplace (if one is available)
- a brief outline of the workplace's history
- a description of any special equipment used in the workplace

Evidence Statements (AE1)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Related Unit(s) of Competency</th>
</tr>
</thead>
<tbody>
<tr>
<td>AE1.1</td>
<td>A one to two page typed report that addresses each of the points listed above in AT1.1</td>
<td>ICAITTWO01B</td>
</tr>
</tbody>
</table>
**Task 2 (AT2) Using hardware and software**

**Learning outcomes**
- Describe the tasks typically performed by three types of business application software
- Explain how a piece of computing hardware operates

**Location**
Workplace setting or off the job

**Associated competencies**
ICAITUO05B, ICAITUO06B

**Background**
Many tasks carried out in the workplace are done by using computers. To complete the tasks successfully, efficiently and to an acceptable standard, staff need to be competent in using an ever increasing variety of computer hardware and software.

**Task details**

**AT2.1** Listed below are a number of workplace needs that require a computer based solution. Choose THREE needs from the list and create a document for each one that addresses the need. Save each of the documents, and place the file name and location, the name of the software package, as well as the print-out date in the document footer (or in another appropriate location). You must use a different software application for each document you submit.

- A floor plan of the workplace/office is required
- A memo needs to be created to inform your supervisor of the different Information Technology units of competency you are doing this year
- A report needs to be created to give to your supervisor that lists the software available on your computer workstation as well as the hardware specification of the workstation
- A list of names, addresses, phone and fax numbers of five (5) businesses that could supply computer spare parts to your organisation
- An information sheet needs to be created to show the organisational chart of the workplace
- An e-mail needs to be sent to your supervisor to list the details of five (5) hardware or software books/manuals available in the office. Ask your supervisor to send a reply to acknowledge that your e-mail has been received. The e-mail and the reply should be attached.
AT2.2 Study the following list of hardware items:

Ink jet printer, laser printer, plotter, modem, scanner, digital camera, CD-ROM, data show, bar code reader.

Choose TWO of the items that you have used or are familiar with and complete the tasks that follow in the form of a report.

- Explain the purpose of the equipment
- Describe, with the help of labelled diagrams, how the equipment works
- List the controls available on the equipment and state their purpose
- Describe any software that is needed to make the hardware function correctly
- Explain how the equipment is connected to the computer
- Provide some evidence that you have used this piece of equipment competently (this may include a statement from a supervisor or teacher)

Evidence Statements (AE2)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Related Unit(s) of Competency</th>
</tr>
</thead>
<tbody>
<tr>
<td>AE2.1</td>
<td>Three documents relating to AT2.1</td>
<td>ICAITUO06B</td>
</tr>
<tr>
<td>AE2.2</td>
<td>Two reports on the hardware items listed in AT2.2</td>
<td>ICAITUO05B</td>
</tr>
</tbody>
</table>
**Task 3(AT3) Interacting and communicating with others in the workplace**

**Learning outcomes**
- Explain the function(s) performed by the workplace
- Communicate effectively with others in a workplace context

**Location** Workplace setting

**Associated competencies** ICAITTW02B, ICAITD03B

**Background**
Communication in the workplace is critical. Many workplaces rely on efficient flow of information. Communication may be between staff as well as between the organisation and its customers and its suppliers. Poor communication may result in lost business which in turn becomes an unnecessary cost to the organisation. Communication includes verbal instructions, written instructions such as memos and letters, electronic messages such as e-mail and bulletin boards, meetings and informal conversations.

**Task details**

**AT3.1** Approach your supervisor and ask if there is any equipment (product) or service that needs to be purchased by your department or organisation so that you can gather a list of at least three quotes. Make a record of your supervisor's response.

**AT3.2** Make a list of names and phone numbers of suppliers that you could ring for quotes. You might want to consult your supervisor, the purchasing department, look though the White or Yellow Pages or the newspaper to compile such a list.

**AT3.3** Show your supervisor the list you have created.

**AT3.4** Prepare a short script that you will use when contacting the suppliers to obtain the quotes.

**AT3.5** Show you script to your supervisor for checking.

**AT3.6** Contact each of the suppliers on your list and record the quoted price of the item. In addition, ask the supplier to fax through any available information about the item.

**AT3.7** Write a memo to your supervisor (this could be typed or hand written) to report on the quote you have obtained. You should ensure you have seen other memos in the workplace so you know how to set them out and what sort of language you should use.
### Evidence Statements (AE3)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Related Unit(s) of Competency</th>
</tr>
</thead>
<tbody>
<tr>
<td>AE3.1</td>
<td>A description of the product or service that has been identified in AT3.1</td>
<td>ICAITD03B</td>
</tr>
<tr>
<td>AE3.2</td>
<td>A list of names and phone numbers of potential suppliers in AT3.2</td>
<td>ICAITD03B</td>
</tr>
<tr>
<td>AE3.3</td>
<td>The script you developed for obtaining quotes from the suppliers in AT3.4</td>
<td>ICAITTW02B</td>
</tr>
<tr>
<td>AE3.4</td>
<td>Copies of the faxes that were sent to you from AT3.6</td>
<td>ICAITD03B</td>
</tr>
<tr>
<td>AE3.5</td>
<td>The memo you have sent your supervisor in AT 3.7</td>
<td>ICAITD03B</td>
</tr>
</tbody>
</table>
**Task 4(AT4) Working safely and effectively**

**Learning outcomes**
- Recognise Occupational Health and Safety issues
- Identify workplace policies and practices

**Location**
Workplace setting

**Associated competencies**
ICAITTW01B, ICAITU04B

**Background**
Each workplace has an accepted way of working. Sometimes this is written down as policy or as a set of guidelines. These policies and guidelines reflect aspects such as the nature of the business, the size of the workplace, the mix of cultures, the workplace attitudes and any legal requirements that apply to that workplace. In addition, employers and staff have rights and responsibilities of which they need to be aware. The purpose of all this is to create a workplace that is safe and fair to all people while helping to portray a positive image.

**Task details**

**AT4.1** Collect any policy documents or guidelines that are used in the workplace. These might include details about dress code, working hours, emergency procedures, use of the computer network or perhaps policies about how to deal with customers/clients.

**AT4.2** Arrange with your supervisor to carry out an informal inspection of the workplace to identify any potential problems or known hazards that might exist. These items could relate to furniture, lighting, ventilation or electrical equipment. For each potential problem or known hazard, list the hazard/problem, state where it is located, explain why it is a potential problem or known hazard, describe how the problem/hazard is currently being dealt with, suggest any additional action that could be taken in relation to the potential problem or known hazard.

**AT4.3** Create a report containing the information and findings you have identified in 4.2 (above) and submit it to your supervisor for comment. Make any changes suggested by your supervisor and re-submit the report. Ask your supervisor to sign the report as being a true record of the occupational health and safety issues that you identified in the workplace.
AT4.4 Use a word processing package to answer the following questions that relate to the policies and procedures in your workplace.

(a) What are the standard hours of operation of this workplace?

(b) What dress regulations apply to this workplace?

(c) What procedures should employees follow if they cannot attend work on a particular day either through illness or for some other reason?

(d) Briefly describe the evacuation procedures that apply to this workplace.

(e) Imagine you are asked to attach a new printer to a computer in the office. Assume the computer is currently switched on with a word processed document on screen. List the steps you would take to perform this operation ensuring no information is lost from the computer and occupational health and safety guidelines are applied.

(f) Locate a fire extinguisher in the workplace and write down where it is located, what type of fires it can be used for and briefly describe how it should be used.

AT4.5 Create a one page document that could be given to a new employee at this workplace that describes how computers in the office are to be used. Your document should include information about logging onto and out of the network, saving files, using e-mail (if available), backing up, availability of software, from whom to seek additional help from, and any policies about for computing equipment.

Evidence Statements (AE4)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Related Unit(s) of Competency</th>
</tr>
</thead>
<tbody>
<tr>
<td>AE4.1</td>
<td>A set of policy documents and workplace procedures collected in AT4.1 (you should check with you supervisor to ensure these documents can be taken from the workplace)</td>
<td>ICAITTW01A</td>
</tr>
<tr>
<td>AE4.2</td>
<td>An Occupational Health and Safety (OH&amp;S) report from the inspection and referred to in AT4.3</td>
<td>ICAITU04A</td>
</tr>
<tr>
<td>AE4.3</td>
<td>A set of answers for AT4.4</td>
<td>ICAITTW01A</td>
</tr>
<tr>
<td>AE4.4</td>
<td>A one page document outlining computer use in the workplace identified in AT4.5</td>
<td>ICAITTW01A</td>
</tr>
</tbody>
</table>
Task 5(AT5)  Caring for and maintaining equipment and property

Learning outcomes
- Describe the reasons for maintaining equipment inventories
- Explain steps required to maintain commonly used computer equipment

Location  Workplace setting or off the job

Associated competencies  ICAITUO07B, ICAITS008B

Background
Many organisations invest considerable amounts of money in purchasing, hiring or renting computing equipment including hardware and software. It is important that at any time the organisation knows where that equipment is located, when it was acquired, and its general state of repair. This information is used by an organisation to help calculate financial statements. It is also necessary for individuals within an organisation to take good care of equipment and property to extend its life for as long as possible.

Task details
AT5.1  There are five (5) activities listed below. Demonstrate to your supervisor or teacher that you can perform each activity correctly.
- Clean a floppy disk drive OR a CD-ROM drive
- Clean a monitor
- Clean a mouse OR keyboard
- Replace a printer toner cartridge/ribbon
- Replace paper in a printer

AT5.2  For each of the activities in 5.1, list the main steps needed to perform the activity correctly and state any special equipment that is required or guidelines that need to be followed.

AT5.3  Use either a word processing, spreadsheet or database package to create a document that could be used to store information about computing equipment located within the organisation. Your document should allow the following information to be recorded:
- Type of equipment
- Manufacturer and model number of the equipment
- Serial number (if appropriate)
- Purchase/acquisition date
- Current location
AT5.4  Number of units Enter five (5) records into your document (these could be real or imaginary).

AT5.5  Complete the following activities

(a) Describe what is meant by a 'consumable' item.

(b) Make a list of five (5) consumable computer related items found in your organisation, and beside each, state the current unit cost.

(c) Describe the process or policy used in your workplace to order and store consumable items

Evidence Statements

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Related Unit(s) of Competency</th>
</tr>
</thead>
<tbody>
<tr>
<td>AE5.1</td>
<td>Steps associated with AT5.2</td>
<td>ICAITU007A</td>
</tr>
<tr>
<td>AE5.2</td>
<td>Document for storing equipment information including five (5) records from the tasks performed in AT5.3 and AT5.4</td>
<td>ICAITS008A</td>
</tr>
<tr>
<td>AE5.3</td>
<td>Responses to AT5.5</td>
<td>ICAITS008A</td>
</tr>
</tbody>
</table>
Project B

Aim
The broad aim of the Competency Standards Integrated Project B is to:

- demonstrate the achievement of the following units of competency for Information Technology
  ICAITS009B
  ICAITS010B
  ICAITTW011B
  ICAITU012B
  ICAITU013B
  ICAITS016B
  ICAITS017B
  ICAITS014B
  ICAITS015B

- develop knowledge, skills, values and attitudes of acceptable practice in a workplace context

- develop an understanding of standards that apply to tasks undertaken in a workplace context

- demonstrate appropriate conduct while interacting with colleagues and customers (clients)

- develop knowledge, skills and attitudes to produce workplace documents of an acceptable standard including letters, reports and notices in which data is integrated from various sources

- acquire appropriate skills, attitudes and values to manage a personal computer in a workplace context

Prerequisites
Project A

Resources
Students will need access to:

- a personal computer (minimum 486 processor or equivalent) attached to a network and with access to a printer

- commercially available business application software such as one of the 'office suites'

- a workplace setting in which they can participate in group (team) activities

- workplace documents including fax/memo templates, code of conduct, mission statement and associated policies, other policy and work practice documents such as Occupational Health and Safety procedures.
**Project Outcome**
Students are to demonstrate their capacity to manage a computer workstation observing the organisation's protocols, and to use that workstation productively to meet organisational goals. Students will need to provide evidence that they have participated with others in a constructive manner and have responded appropriately to their needs. Furthermore, students will need to provide evidence of applying their computing and interpersonal skills and knowledge to a workplace problem to produce a satisfactory solution.

The project is divided into parts corresponding to groupings of units of competency. At each part, evidence is collected to demonstrate how the student has achieved AQF II competencies.

It is expected that students will receive appropriate assistance from others during the course of the project.

**Nominal hours**
It is anticipated that the project may take 40 hours to complete.

**Implementation and student submission**
Students should submit their work as each task is completed. These tasks should be added to a student's portfolio. When all tasks have been completed successfully and the student has been deemed competent on the basis of the evidence they have provided, the portfolio can be returned to the student.

It is NOT essential for assessment to occur in any particular order or to complete tasks in any specific sequence. The order in which the parts, tasks and evidence statements are presented in this document serve as an implementation guide ONLY. The timetable for the submission of evidence should be determined by the teacher.

**Recording of Competencies**
Achievement of competencies should be recorded in the Information Technology Competency Record.

This can be done as each part is completed.
Project Specifications - Project B

Task 1 (BT1) Produce organisational documents

Learning outcomes
Design and produce organisational documents that address a business need and that integrate data from at least one other software application package

Location
Workplace setting

Associated competencies
ICAITU012B, ICAITU013B

Background
Organisations rely heavily upon the production of documents. These documents might be made available in paper or electronic form and could be used internally, or for the benefit others outside the organisation. Generally speaking, the documents that are produced will reflect the corporate identity of the organisation both in the way they are formatted and the type of language used.

Task details
BT1. 1 You are required to produce three documents from the list below. At least one document must be selected from Group A and at least one document from group B.

<table>
<thead>
<tr>
<th>Group A</th>
<th>Examples</th>
<th>Group B</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Document</td>
<td></td>
<td>Document</td>
<td></td>
</tr>
<tr>
<td>Form</td>
<td>customer inquiry form, booking form</td>
<td>Web home page</td>
<td>customer information</td>
</tr>
<tr>
<td>Notice</td>
<td>staff function</td>
<td>Flyer</td>
<td>special event</td>
</tr>
<tr>
<td>Internal newsletter</td>
<td>weekly happenings</td>
<td>Information sheet</td>
<td>product/service information</td>
</tr>
</tbody>
</table>

You need to use at least two of the following application programs:

- Word processor
- HTML editor
- Desktop publishing program;
- Business presentation package.

In producing the documents you will need to consider the following criteria:

- identify each document’s purpose and audience
- create and present a hand drawn sketch of the documents which indicate basic layout features for comment
- prepare the documents with accurate information using language that is consistent with each document's purpose
- integrate data (eg graphic, table) into at least one of the documents from another application software package
• format the documents to reflect the corporate image
• create, save and present final drafts for editing/comment
• edit/format documents in response to comments on previous drafts using a variety of available tools
• produce final documents ready for distribution

Evidence Statements (BE1)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Related Unit(s) of Competency</th>
</tr>
</thead>
<tbody>
<tr>
<td>BE1.1</td>
<td>A hand drawn sketch of the documents (paper based) with comments</td>
<td>ICAITU012B</td>
</tr>
<tr>
<td>BE1.2</td>
<td>A final draft of the documents</td>
<td>ICAITU013B</td>
</tr>
<tr>
<td>BE1.3</td>
<td>The finished documents ready for distribution</td>
<td>ICAITU013B</td>
</tr>
</tbody>
</table>
Task 2 (BT2)  Manage a computer workstation

Learning outcomes

- Respond to, log and place client requests in order
- Carry out system maintenance including file maintenance, backing up and restoring, virus scanning and reporting of software compliance breaches
- Work with others in a team
- Describe purchasing and storage guidelines and procedures

Location  Off the job

Associated competencies  ICAITS009B, ICAITTW011B, ICAITS016AB
ICAITS017B

Note  Students will need access to a workstation on which they can perform routine maintenance tasks.

Background
Like most equipment, computers need to be maintained to ensure they function well. Breakdowns and under performance can be costly. Furthermore, to assist in the maintenance and repair of faults, it is a good idea to keep a log of the work carried out on a computer, as over a period of time this information can be used to build up a picture about the reliability and general health of a computer. This is also important from a user's point of view as they should have confidence in the reliability of the technology they are using. Finally, to minimise disruption due to computer 'down time' or to simply keep pace with available technology, most organisations have systems in place to obtain and store replacement parts as well as to purchase new hardware and software.

Task details
Your teacher/supervisor will assign you to a personal computer which will be your responsibility to maintain for a minimum period of 10 weeks. You will perform maintenance under the direction of your teacher/supervisor.

Typically, you might be expected to perform a range of tasks from the list below, although there may be other tasks. It should be noted that it is expected that the following tasks would be performed on the local resources of a computer workstation or stand alone computer.

- Scan a disk for viruses and errors
- Report on available disk space and the change in available disk space over a period of time
- Clean keyboards, monitors, system units, floppy disk drives and CD ROM drives using appropriate equipment and following correct procedures
- Report any hardware faults or malfunctions including those associated the system unit, monitors, printers, cables, connections, mice, keyboards or other peripheral devices
- Identify and maintain an inventory of all software on the computer and provide this to your teacher/supervisor
• Print directory listings
• Install software and connect peripheral devices under the direction of your teacher/supervisor
• Maintain a log of all requests for work to be carried out on a workstation
• Report maintenance issues that are network related to your teacher/supervisor

BT2.1 Develop a diary/log of all actions performed on your assigned computer including routine maintenance and rectification of problems. Your diary/log could either be electronic or paper based and should store the following information:
  • date when problem was logged (if responding to a client request),
  • name of person who logged the problem (if responding to a client request),
  • nature of the problem/task,
  • date when action was taken,
  • nature of the action,
  • further action required.

BT2.2 Write a one page report based on your experiences of maintaining a computer which addresses the following questions
  • What software or software utilities did you use to maintain the computer and what was the purpose of each of these?
  • What were the most common problems encountered during the time you were maintaining the computer?
  • What was the total amount of time spent performing
    (a) routine maintenance and
    (b) problem solving?
  • What recommendations can you suggest to ensure the ongoing reliability of the workstation?
  • What did you learn by conducting this computer maintenance activity?

BT2.3 Participate in a group discussion with other students who have been maintaining a workstation to discuss and draw up a list of common experiences as well as particular experiences.
BT2.4 From your experience of maintaining a computer, work individually or in teams to produce a set of guidelines that could be used in an organisation for:

(a) purchasing new hardware and software and

(b) obtaining and storing replacement parts

Evidence Statements (BE2)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Related Unit(s) of Competency</th>
</tr>
</thead>
<tbody>
<tr>
<td>BE2.1</td>
<td>Copy of the diary/log you have maintained over the 10 week period</td>
<td>ICAITS016B</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ICAITS009B</td>
</tr>
<tr>
<td>BE2.2</td>
<td>A copy of the report written in BT2.2</td>
<td>ICAITS017B</td>
</tr>
<tr>
<td>BE2.3</td>
<td>Participation in group discussion and list of common experiences drawn up in BT2.3 and recommendations that result from the discussion</td>
<td>ICAITTW011B</td>
</tr>
<tr>
<td>BE2.4</td>
<td>Guidelines developed in BT2.4</td>
<td>ICAITS017B</td>
</tr>
</tbody>
</table>
Task 3 (BT3)  Apply problem solving techniques to an organisational problem with the assistance of computer hardware and software

Learning outcomes
- Identify available peripheral hardware options for a given scenario
- Connect peripheral devices to a computer and test their operation
- Identify available software options for a given scenario
- Install software on a computer and test its operation
- Describe purchasing guidelines and procedures
- Describe storage guidelines and procedures
- Maintain portfolio of standard systems

Location  Off the job

Associated competencies  ICAITS010B, ICAITS014B, ICAITS015B, ICAITWO11B, ICAITUO12B

Note  Students will need access to a workstation to which they can connect and test a peripheral device and on which they can install and test software and data files.

Background
The operation of computers can be improved upon or adapted to perform specific tasks with the use of software and peripheral devices (additional hardware). To take advantage of the potential benefits that can be gained, the software and/or hardware needs to be installed/connected to an existing system and then configured in accordance with the manufacturers recommendations and instructions. Furthermore, many business software application programs have the capacity to be tailored to suit individual business needs through the use of tools such as templates, data merging (eg mail merging), customised menus and toolbars, and for the more experienced users, macros and programming modules.

Task details
Read the following scenario.

You are to assume that you run a small computing business that was established to assist other small businesses with their computing needs. Specifically, your business focuses upon helping your clients in setting up and maintaining their computers by providing both hardware and software support.

You have been contracted by a local business (you can nominate the business) that wants you to help them set up their first computer that was purchased recently. This computer meets current industry standards and comes with the operating system already installed, but has no additional hardware or software.

BT3.1  Identify the name of the business with whom you have the contract (you can use a real or fictitious business) and describe briefly the nature of the business.
BT3.2 Conduct research into the business you have identified (or a similar business if you are using a fictitious organisation) to determine typical activities that are carried out such as locating and servicing clients, invoicing clients, ordering materials and managing business income and expenses. Your research should involve speaking with people working in the area you have selected. You will need to write a report of no more than two pages summarising your research.

BT3.3 Use an integrated software application package (eg an office suite or a 'works' application) to create templates and/or forms and/or reports for recording client details and orders, sending out invoices and documenting payments. The templates and/or forms and/or reports you create should address the particular needs of the type of business you have identified and can be created in either a word processing, spreadsheet, or database package, or a combination of the three. You may add other functions if you wish.

BT3.4 The items developed in BT3.3 are to be accompanied by a quick reference guide that could either be electronic or paper based. The quick reference guide should explain how to use and manage the templates and/or forms and/or reports and therefore include information about storing data files, backing up files and ensuring the items can be accessed correctly.

BT3.5 Identify an external peripheral device (you should use the list below as a guide) that you would recommend for the business you have identified and ensure that you can demonstrate the installation and operation of the device.

<table>
<thead>
<tr>
<th>List of possible external peripheral devices</th>
</tr>
</thead>
<tbody>
<tr>
<td>CD ROM back pack</td>
</tr>
<tr>
<td>Digital camera</td>
</tr>
<tr>
<td>Jazz/Zip drive</td>
</tr>
<tr>
<td>Joystick</td>
</tr>
<tr>
<td>Modem</td>
</tr>
<tr>
<td>OCR/bar code reader</td>
</tr>
<tr>
<td>PC projector/data show</td>
</tr>
<tr>
<td>Plotter</td>
</tr>
<tr>
<td>Scanner</td>
</tr>
<tr>
<td>Tape drive</td>
</tr>
<tr>
<td>Laser printer</td>
</tr>
<tr>
<td>Dot matrix printer</td>
</tr>
<tr>
<td>Inkjet printer</td>
</tr>
<tr>
<td>Digitising pen and tablet</td>
</tr>
</tbody>
</table>

BT3.6 You are to prepare a 5 to 10 minute talk entitled 'What's Possible' to be delivered at a small business seminar.

The subject of the seminar relates to improving business productivity with the use of Information Technology in conjunction with the latest hardware and software. The audience will be small business people with little or no computing experience. Your seminar will need to be accompanied by;

- a presentation slide show of between 10 and 20 slides (this could be created by using a suitable presentation or hypertext application) to accompany the presentation
- a poster that illustrates the benefits to business of using Information Technology
- a collection of promotional materials related to the range of hardware peripheral and software application products (at least 5 of each) relevant to your audience (you will need to collect such materials from vendors, newspapers, websites etc)
• a short demonstration of the items developed in BT3.3
• a short demonstration that illustrates a special feature of the peripheral device identified in BT3.5

BT3.7 You are to set up your display, including the installation of the peripheral device and any software you will be using for your demonstration

BT3.8 You are to deliver your talk to a small group

BT3.9 Select 3 hardware peripherals and 3 software applications collected for task BT3.6 and write a report using either a word processor, spreadsheet or database outlining
• the essential features of each
• the advantages and disadvantages/limitations of each
• any associated Occupational Health and Safety issues
• any associated maintenance/compatibility/upgrading issues

Deliverables/Evidence (BE3)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Related Unit(s) of Competency</th>
</tr>
</thead>
<tbody>
<tr>
<td>BE3.1</td>
<td>Research report created in BT3.2</td>
<td>ICAITS010B</td>
</tr>
<tr>
<td>BE3.2</td>
<td>Template and/or form and/or report for managing business developed in BT3.3</td>
<td>ICAITUO12B</td>
</tr>
<tr>
<td>BE3.3</td>
<td>Quick reference guide referred to in BT3.4</td>
<td>ICAITUO12B</td>
</tr>
<tr>
<td>BE3.4</td>
<td>Presentation slide show developed in BT3.6</td>
<td>ICAITUO12B</td>
</tr>
<tr>
<td>BE3.5</td>
<td>Poster created in BT3.6</td>
<td>ICAITS010B</td>
</tr>
<tr>
<td>BE3.6</td>
<td>Collection of relevant articles and/or brochures and/or advertisements for a range of relevant hardware and software products discussed in BT3.6</td>
<td>ICAITW011B</td>
</tr>
<tr>
<td>BE3.7</td>
<td>Creation of template and/or form and/or report</td>
<td>ICAITS015B</td>
</tr>
<tr>
<td>BE3.8</td>
<td>Installation of peripheral device to be used for demonstration</td>
<td>ICAITS014B</td>
</tr>
<tr>
<td>BE3.9</td>
<td>Demonstration of the template and/or form and/or report developed in BT3.3</td>
<td>ICAITS015B</td>
</tr>
<tr>
<td>BE3.10</td>
<td>Demonstration of selected the hardware device in BT3.5</td>
<td>ICAITS014B</td>
</tr>
<tr>
<td>BE3.11</td>
<td>Report on the hardware selected in BT3.9</td>
<td>ICAITS014B</td>
</tr>
<tr>
<td>BE3.12</td>
<td>Report on the software selected in BT3.9</td>
<td>ICAITS015B</td>
</tr>
</tbody>
</table>