<table>
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<tr>
<th>Training Package</th>
<th>Information Technology ICA99</th>
<th>Unit Code</th>
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<tbody>
<tr>
<td><strong>Title:</strong></td>
<td>Connect hardware peripherals</td>
<td>ICAITS014C</td>
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<tr>
<td><strong>Description</strong></td>
<td>This unit defines the competency required to connect hardware peripherals according to instructions.</td>
<td>HSC Indicative Hours: 10</td>
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<tr>
<td><strong>Field</strong></td>
<td>Support</td>
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<tr>
<td><strong>Related Competency Standards</strong></td>
<td>The project lifecycle and the IT methodology employed will determine which particular units of competency are relevant to this unit. Some include ICAITU004B, ICAITU005B, ICAITU006B, ICAITU007B, ICAITU012B, ICAITU013B, ICAITS015B, ICAITS017C.</td>
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**Key Competencies**

Key Competencies are competencies essential for effective participation in the emerging patterns of work and work organisation. They focus on the capacity to apply knowledge and skills in an integrated way in work situations. (Mayer definition)

There are seven key competencies that have been formally identified. The Key Competencies are generic in that they apply to work generally, rather than being specific to work in particular occupations or industries.

<table>
<thead>
<tr>
<th>Collect, Analyse, and Organise Information</th>
<th>Communicate Ideas and Information</th>
<th>Plan and Organise Activities</th>
<th>Work with Others and in Teams</th>
<th>Use Mathematical Ideas and Techniques</th>
<th>Solve Problems</th>
<th>Use Technology</th>
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**Related learning for the HSC**

Students may draw on skills and knowledge developed in other studies to achieve competency in this unit. This can include:

- Systems Design and Development
- Information Processes and Technology

**Resources that may be used in training and assessment for this unit**

- Non-endorsed materials for ICAITS014C
- National Information Technology Module ITC201 – Computer Hardware Fundamentals
- National Information Technology Module ITH302 – PC User Fundamentals
- TAFE NSW Module 3625L – Hardware/software portfolio
- National Module NITG302 – Installing and managing peer to peer LANs
- National Module NITG – Value added information services
- 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
<table>
<thead>
<tr>
<th>Element</th>
<th>Performance Criteria</th>
<th>Underpinning skills and knowledge</th>
<th>Evidence Guide</th>
<th>HSC Requirements</th>
</tr>
</thead>
</table>
| 1. Confirm requirements of client | 1. Clients’ peripheral requirements are identified and are confirmed in accordance with organisation standards | **Underpinning Knowledge:**  
- Broad general knowledge of OH&S procedures for electrical equipment  
- Detailed knowledge of inventory procedures  
- Organisational guidelines relating to external suppliers and vendors  
- General understanding of systems, technical terms  
- Broad knowledge base incorporating theoretical concepts of three or more current industry accepted hardware peripherals; knowledge of general features and capabilities and detailed knowledge in some  
- Broad knowledge base incorporating theoretical concepts of three or more current industry accepted system components; knowledge of general features and capabilities and detailed knowledge in some  
- Broad knowledge base incorporating theoretical concepts of operating systems  
- Broad knowledge of help desk and maintenance practices  
- Current industry-accepted hardware and software products with broad knowledge of general features and capabilities and detailed knowledge in some areas | **Critical aspects of evidence**  
Assessment must confirm the ability to connect hardware peripherals according to vendor instructions with a minimum of down time to the system. Competency is required in the connection of five different peripherals. Ability to interpret vendor manuals in relation to the storage and connection of hardware peripherals is demonstrated. Occupational Health and Safety regulations relating to working with electrical equipment is adhered to.  
**Interdependent assessment of units**  
This unit may be assessed with any of the following: ICAITU004B, ICAITU005B, ICAITU006B, ICAITU007B, ICAITU012B, ICAITU013B, ICAITU015B, ICAITU017C. The interdependence of units of competency for assessment will vary with the particular project or scenario. | **Key Terms and Concepts**  
- peripheral device  
- serial/parallel port, SCSI interface and other peripheral device interfaces  
- device set-up and configuration  
- device performance, testing and troubleshooting  
- system down time  
- device driver  
- compatibility  
- warranty, installation instructions, registration and support  
- input/output devices  
**Learning experiences for the HSC must include:**  
- following installation instructions supplied with peripheral devices  
- installing and testing at least a keyboard, mouse, and printer, plus at least two other external peripheral devices, one of which must be a storage device  
- applying Occupational Health and Safety guidelines for attaching and/or removing devices and cables from a computer  
- interpreting a variety of troubleshooting charts/diagrams/tables |
| 2. Obtain required peripherals | 1. Peripherals are obtained under instruction from management/supervisor  
2. Peripherals are entered into equipment inventory according to organisation’s procedures  
3. Contents are validated and method of ensuring the physical contents match the packing list is demonstrated  
4. Peripherals are stored according to vendor/manual guidelines | | |
<table>
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<tr>
<th>3. <strong>Connect hardware peripherals</strong></th>
<th>1. <strong>Timeframe for installation schedule is verified with higher authority</strong></th>
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<tr>
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<td>2. <strong>Existing peripherals are disconnected and replaced, with minimal disruption to clients</strong></td>
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<td></td>
<td>3. <strong>New peripherals are connected with minimal disruption</strong></td>
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<td></td>
<td>4. <strong>Computer is configured to accept new peripherals</strong></td>
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<tr>
<td></td>
<td>5. <strong>Hardware peripherals are tested and client satisfaction is confirmed. Amendments are made as required for client</strong></td>
</tr>
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</table>

- **Broad knowledge base incorporating theoretical concepts of Input/output skills in relation to maintenance procedures and devices**

**Underpinning skills:**
- Customer service skills in relation to maintenance procedures
- Handling difficult clients
- Conflict resolution skills in relation to maintenance procedures
- Decision-making in a limited range of options
- Literacy in regard to general workplace documentation
- Problem-solving skills for a defined range of predictable problems
- Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information
- Facilitation and presentation skills in relation to transferring and collecting information
- Negotiation skills in relation to other team members and applied to a defined range of predictable problems
- Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas.

- **familiarisation with organisational hardware blueprint**
- developing an annotated peripheral device portfolio/scrapbook containing at least 15 items (clippings, etc) representing a range of different peripheral devices
### Resources

To demonstrate this unit of competence the candidate will require access to:
- the organisation’s hardware blueprint
- the vendor’s support staff (on call if assessment is a live activity).

Additional staff may be required to support the assessment.

**Evidence can be collected through a supervisor’s report, peer reports and client reports. Each report should be structured and require comment on each performance criterion and the evidence guide.** Questions related to the performance criteria and directed to the candidate, peers and business client will assist in assessing competence. Observation of skills may assist in the collection of evidence.

### Consistency

Competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a range of contexts. Simulated activities must closely reflect the workplace and may need to take place over a period of time.

### Context

Assessment of this unit of competence will usually include: observation of real or simulated work processes and procedures; quality projects; questioning on underpinning knowledge and skills. The questioning of team members will provide valuable input to the assessment.

This competency can be assessed in the workplace or in a simulated environment. The purpose of this unit of competence is to define the standard of performance to be achieved in the workplace.

An individual demonstrating these competencies would be able to: demonstrate knowledge by recall in a narrow range of areas; demonstrate basic practical skills, such as the use of relevant tools; perform a sequence of routine tasks given clear direction; and receive and pass on messages/information.

Breadth, depth and complexity of knowledge and skills would prepare a person to perform in a range of varied activities or knowledge application where there is a clearly defined range of contexts in which the choice of actions required is usually clear and there is limited complexity in the range of options to be applied.

An individual demonstrating these competencies would be able to: demonstrate basic operational knowledge in a moderate range of areas; apply a defined range of skills; apply known solutions to a limited range of predictable problems; perform a range of tasks where choice between a limited range of options is required; assess and record information from varied sources; take limited responsibility for one’s own outputs in work and learning.
<table>
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<tr>
<th>Variable</th>
<th>Scope</th>
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<tbody>
<tr>
<td><strong>Range of Variables</strong></td>
<td>The Range of Variables section contextualises the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.</td>
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<tr>
<td><strong>Peripheral</strong></td>
<td>Peripherals will normally connect to an existing interface port or wireless and do not include peripherals accessed internally. Peripherals may include, but are not limited to: printers, scanners, tape cartridges; speakers, multimedia kits, PC fax, modems. Keyboard equipment may include mouse, touch pad, keyboard, pens; mobile phones, palmtops and desktop computers; Bluetooth devices, Universal Serial Bus (USB). Peripherals can be sourced from existing inventory or vendors.</td>
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<tr>
<td><strong>Operating systems</strong></td>
<td>Win 95/98/NT/2000, Sun Solaris/SunOS, HP-UX, AIX, Digital Unix, Silicon Graphics IRIX, DOS, DEC VMS, Mac OSX, Linux, NetWare.</td>
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<tr>
<td><strong>Software and applications</strong></td>
<td>Can include packaged software, in-house development or out-sourced development. The amount of maintenance, change and tailoring that can be undertaken will vary.</td>
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<td><strong>Configuration</strong></td>
<td>Configuration includes automatic, plug and play, and manual.</td>
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<tr>
<td><strong>Reporting procedures</strong></td>
<td>Help desk and maintenance structures will vary. Some may be a call centre or a general contact point which then calls a supplier or other technician. Others may be staffed by technicians capable of solving the problem. Thus documentation and other procedures will vary. Systems to monitor change request may be manual or computerised.</td>
</tr>
<tr>
<td><strong>Documentation and reporting</strong></td>
<td>Documentation for version control may follow ISO standards. Audit trails, naming standards, version control, project management templates and report writing styles will vary according to organisational approach. Information gathering processes may have associated templates.</td>
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<tr>
<td><strong>Standards and procedures</strong></td>
<td>May include: formal procedures that must be adhered to with check points and sign offs with documented procedures and templates, implementation of financial control mechanisms, communication with stakeholders, dispute resolution and modification procedures, processes for determining size and cost.</td>
</tr>
<tr>
<td><strong>OH &amp; S Standards</strong></td>
<td>As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency.</td>
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