Australian Government

Department of Education, Employment and Workplace Relations

ICAU2005B Operate computer hardware

Release: 1

INDUSTRY SKILLS COUNCILS

Creating Australia's Future

ICAU2005B Operate computer hardware

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit defines the competency required to determine, select and correctly operate basic computer hardware, generally known as peripherals and which may include input/output devices and secondary memory. There may be benefit in concurrent learning with the following units: • ICAS2014B Connect hardware peripherals • ICAU2231B Use computer operating system The following units are linked and form an appropriate cluster: • ICAS2014B Connect hardware peripherals • ICAU2231B Use computer operating system No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Application of the Unit

Application of the unit	

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Prerequisite units		
	ICAU1128B	Operate a personal computer

Employability Skills Information

Employability skills	This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify computer hardware components	1.1. Identify ***external hardware components*** and ***peripherals*** 1.2. Identify ***internal hardware components***
2. Understand the interrelationship between computer hardware and software	2.1. Describe the functions of computer ***hardware*** and associated ***OH&S standards*** and ***environmental considerations*** around ***hardware*** use and disposal 2.2. Describe the function of a computer operating system 2.3. Describe the boot process 2.4. State the relationship between an application program, the operating system and ***hardware*** 2.5. State the general differences between the different ***computer platforms*** and their respective operating systems 2.6. Draw a simple block (schematic) diagram showing the interconnection of the various components of a computer
3. Use computer input equipment	3.1. Follow ***OH&S standards*** and ***organisational*** policies and procedures when using computer input equipment

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- Reading and writing at a level where basic workplace documents are understood
- Decision making skills in a narrow range of areas
- Problem solving skills for a defined range of predictable problems
- Ability to communicate with peers and supervisors to seek assistance and advice

Required knowledge

- OH&S principles and responsibilities
- Ergonomic principles to avoid back, wrist and eye strain
- Procedures and exercises for avoiding strain and injury

REQUIRED SKILLS AND KNOWLEDGE
• Basic knowledge of current industry-accepted hardware and software products, with broad knowledge of general features and capabilities

Evidence Guide

EVIDENCE GUIDE	
The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Evidence of the following is essential: • Assessment must confirm the ability to determine, select, explain and use hardware components, peripheral equipment and consumables correctly and efficiently according to the task requirement. To demonstrate competency in this unit the person will require access to: • PC or workstation • Peripheral devices
Context of and specific resources for assessment	Peripheral equipment forms an auxiliary but essential component of everyday computer usage. Such equipment enhances the effectiveness of computers and provides increased functionality and capability for input, output and memory functions. The efficient and effective operation of peripherals is a critical aspect of information technology in most workplaces. The breadth, depth and complexity of knowledge and skills in this competency would prepare a person to perform in a range of varied activities or knowledge applications where there is a clearly defined range of contexts in which the choice of actions required is usually clear. There would generally be limited complexity in the range of operations to be applied. Assessment must ensure: • Performance of a prescribed range of functions involving known routines and procedures and some accountability for the quality of outcomes would be characteristic. • Applications may include some complex or

EVIDENCE GUIDE	
	non-routine activities involving individual responsibility or autonomy and/or collaboration with others as part of a group or team.
Method of assessment	The purpose of this unit is to define the standard of performance to be achieved in the workplace. In undertaking training and assessment activities related to this unit, consideration should be given to the implementation of appropriate diversity and accessibility practices in order to accommodate people who may have special needs. Additional guidance on these and related matters is provided in ICA05 Section 1. • Competency in this unit should be assessed using summative assessment to ensure consistency of performance in a range of contexts. This unit can be assessed either in the workplace or in a simulated environment. However, simulated activities must closely reflect the workplace to enable full demonstration of competency. • Assessment will usually include observation of real or simulated work processes and procedures and/or performance in a project context as well as questioning on underpinning knowledge and skills. The questioning of team members, supervisors, subordinates, peers and clients where appropriate may provide valuable input to the assessment process. The interdependence of units for assessment purposes may vary with the particular project or scenario.
Guidance information for assessment	Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example: • ICAS2014B Connect hardware peripherals • ICAU2231B Use computer operating system An individual demonstrating this competency would be able to: • Demonstrate basic operational knowledge in a moderate range of areas • Apply a defined range of skills

EVIDENCE GUIDE	
	• 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 • Communicate with team members to clarify job requirements • Take limited responsibility for own outputs in work and learning • Maintain knowledge of industry products and services

Range Statement

RANGE STATEMENT	
The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.	
External hardware components may include but are not limited to:	• keyboard • mouse • disk drives • USB • serial • parallel ports
Internal hardware components may include but are not limited to:	• CPU • memory chip • motherboard • video display card • network interface card • sound card • cabling
Computer platforms may include but are not limited to:	• Apple Macintosh and PCs • and the various operating systems used on each
Peripherals may include but are	• Printers, scanners, tape cartridges

RANGE STATEMENT	
not limited to:	• Speakers, multimedia kits • Personal computer fax/modems • Input equipment may include mouse, touch pad, keyboard, pens • Mobile phones, palmtops and personal digital assistants (PDAs), laptops and desktop computers • Bluetooth devices, universal serial bus (USB), Firewire (IEEE 1394)
Hardware may include but is not limited to:	• workstations • personal computers • modems and other connectivity devices • networks • DSL modems • remote sites • servers
Consumables may include but is not limited to:	• cartridges • ribbons • floppy disks • CD-R • CD-RW • DVD-R/RW
OH&S standards may include:	• correct posture • lighting • type of desk • type of monitor • style of chair • typing position • correct lifting method • repetitive strain injury prevention • ventilation • light position • length of time in front of computer
Organisational may include but are not limited to:	• security procedures • OH&S procedures • maintenance procedures • standards for speed and accuracy
Environmental considerations may include but is not limited to:	• recycling • safe disposal of packaging (e.g. cardboard, polystyrene, paper, plastic)

RANGE STATEMENT	
	• correct disposal of redundant hardware (e.g. motherboards, hard drives, circuit boards) by an authorised body

Unit Sector(s)

Unit sector	Use

Co-requisite units

Co-requisite units		

Competency field

Competency field	