

Demonstrate and apply knowledge of a personal computer system

Level 1

Credits 3

Purpose People credited with this unit standard are able to: demonstrate knowledge of the hardware components of a personal computer system; demonstrate knowledge of the operation of the system and application software of a personal computer; operate a printer; complete basic operation and maintenance procedures for a personal computer system; and demonstrate knowledge of ergonomic requirements for the safe operation of a personal computer system.

Subfield Computing

Domain Generic Computing

Status Registered

Status date 22 May 2009

Date version published 22 May 2009

Planned review date 31 December 2013

Entry information Open.

Accreditation Evaluation of documentation by NZQA.

Standard setting body (SSB) NZQA National Qualifications Services

Accreditation and Moderation Action Plan (AMAP) reference 0226

This AMAP can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Special notes

- 1 All activities associated with this unit standard must comply with occupational health and safety guidelines and recommendations in relation to working environment and work practices and the requirements of the Health and Safety in Employment Act 1992 and its subsequent amendments.
- 2 Demonstration of knowledge can be oral, written, practical, or a combination, as appropriate to the assessment situation. For elements 3 and 4, practical demonstration is expected. However, in relation to evidence for performance criterion 4.1, candidates may demonstrate that they know how to connect the components if workplace policy precludes a practical demonstration.

3 Definitions

Application software refers to software operated by end-users rather than the computer system itself, eg word-processing.

Organisational requirements mean the documented policies and procedures or commonly accepted practices of a workplace, school or training provider. Candidates must be provided with these prior to assessment against this unit standard.

System software refers to software employed by the computer system rather than end-users, eg operating systems.

4 A useful resource for element 5 of this standard is OSH 3211 AFC: *Approved Code of Practice for the use of Visual Display Units in the Place Of Work*, Occupational Safety and Health Service: Department of Labour, 1996.

5 An assessment resource to support computing unit standards (levels 1 to 4) can be found on the NZQA website at <http://www.nzqa.govt.nz/providers/resources/index.html>.

Elements and performance criteria

Element 1

Demonstrate knowledge of the hardware components of a personal computer system.

Range hardware components may include but are not limited to – central processing unit, motherboard, keyboard, mouse, display monitor, disk drive, Random Access Memory (RAM), Read Only Memory (ROM), printer, digital camera, scanner, modem, WiFi, connection to a network or the Internet. Evidence of six hardware components is required but must include RAM and ROM.

Performance criteria

1.1 Hardware components are identified in terms of device type and functions.

Range device types include but are not limited to – input, storage, output, processing.

1.2 The interaction of components is identified in terms of the flow of data between them.

Element 2

Demonstrate knowledge of the operation of the system and application software of a personal computer.

Performance criteria

2.1 System software is identified and described in terms of its purpose and operation.

2.2 Application software is identified and its purpose stated in terms of outputs.

Range common software applications may include but are not limited to – word processing, spreadsheet, database, desktop publishing, graphics, communication, multimedia, web browser.
Evidence of four applications is required.

2.3 The interaction between system software and application software is described.

Element 3

Operate a printer.

Performance criteria

3.1 Data from a personal computer is displayed on printed output media.

Range data from a minimum of four different applications is printed.

3.2 Simple printer hardware faults and printer related error messages are identified and remedied.

Range remedies must be demonstrated or explained for a minimum of two faults.

Element 4

Complete basic operation and maintenance procedures for a personal computer system.

Performance criteria

4.1 The basic components of a personal computer system are connected to enable it to be operated safely.

Range components may include but are not limited to – system unit, keyboard, monitor, mouse or other pointing device, power leads, digital camera, scanner, portable external storage, modem, connection to a network or the Internet.
Evidence of five examples is required.

4.2 A personal computer system is powered up according to organisational requirements and confirmed as working.

4.3 Simple hardware faults are identified and corrected or reported according to organisational requirements.

Range may include but is not limited to – faulty components, loose or disconnected plugs.
A minimum of three faults are identified, corrected or reported.

4.4 A personal computer system is cared for and maintained according to organisational requirements.

Range may include but is not limited to – cleaning, replenishing consumables, use of system protection and/or maintenance utility software.
Evidence of maintenance of one of each of hardware and software is required.

Element 5

Demonstrate knowledge of ergonomic principles for the safe operation of a personal computer system.

Range according to the approved code of practice.

Performance criteria

5.1 Ergonomic principles are explained in terms of user physical well-being.

Range three of – desk dimensions, posture in chair and seating height; feet placement; position of monitor, keyboard, and mouse relative to user; rest periods and exercises.

5.2 Ergonomic requirements are explained in terms of environment.

Range two of – space, housekeeping, atmospheric conditions, noise, lighting, décor, printer location.

Please note

Providers must be accredited by NZQA, or an inter-institutional body with delegated authority for quality assurance, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be accredited by NZQA before they can register credits from assessment against unit standards.

Accredited providers and Industry Training Organisations assessing against unit standards must engage with the moderation system that applies to those standards.

Accreditation requirements and an outline of the moderation system that applies to this standard are outlined in the Accreditation and Moderation Action Plan (AMAP). The AMAP also includes useful information about special requirements for organisations wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

Comments on this unit standard

Please contact the NZQA National Qualifications Services nqs@nzqa.govt.nz if you wish to suggest changes to the content of this unit standard.