



Australian Government

Department of Education, Employment and Workplace Relations

HLTOPT406B Edge and fit ophthalmic appliances

Release: 1

HLTOPT406B Edge and fit ophthalmic appliances

Modification History

Not Applicable

Unit Descriptor

Descriptor

This unit of competency describes the skills and knowledge required to edge and fit ophthalmic lenses

Application of the Unit

Application

The application of knowledge and skills described in this competency unit related to functions necessary for working within optical technology

Work at this level may be undertaken independently or under guidance and/or supervision

Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Not Applicable

Employability Skills Information

Employability Skills

This unit contains Employability Skills

Elements and Performance Criteria Pre-Content

Elements define the essential outcomes of a unit of competency.

The Performance Criteria specify the level of performance required to demonstrate achievement of the Element. Terms in italics are elaborated in the Range Statement.

Elements and Performance Criteria

ELEMENT

PERFORMANCE CRITERIA

1. Operate equipment

- 1.1 Use *relevant equipment* to edge and fit lenses
- 1.2 Clean equipment and attachments in accordance with manufacturer's requirements and infection control procedures
- 1.3 Undertake regular maintenance procedures on equipment in accordance with manufacturers requirements and infection control procedures
- 1.4 Store equipment and attachments in accordance with manufacturer's requirements and organisation policies and procedures

ELEMENT**PERFORMANCE CRITERIA****2. Perform skills in edging and fitting**

- 2.1 Check prescription requirements regarding segment heights, centres and other relevant components
- 2.2 Prepare for the edging of spectacle lenses
- 2.3 Edge lenses
- 2.4 Insert lenses into frames and other appliances using frame fitting equipment
- 2.5 Use special hand-edging techniques to modify lenses for change-overs and centring corrections
- 2.6 Edge, groove and mount spectacle lenses to nyl-tag frames
- 2.7 Edge, drill and mount spectacle lenses to rimless frames
- 2.8 Perform standard frame alignment
- 2.9 Fit *atypical* appliances

3. Utilise computer *technology*

- 3.1 Select appropriate technology and *software applications* to achieve the requirements of the task
- 3.2 Adjust workspace, furniture and equipment to suit the ergonomic requirements of the user
- 3.3 Use technology according to organisation requirements and in a way which promotes a safe work environment
- 3.4 Use edging equipment correctly and in accordance with the manufacturer's recommendations/instructions
- 3.5 Carry out or arrange routine maintenance in order to ensure that equipment is maintained in accordance with manufacturer's instructions and organisation requirements
- 3.6 Identify *equipment faults* and take action in accordance with manufacturer's instructions or by reporting fault to designated person

ELEMENT**PERFORMANCE CRITERIA**

- | | |
|---|--|
| 4. Perform frame modifications | 4.1 Inspect frames for faults prior to glazing |
| | 4.2 Modify frames to client specifications |
| | 4.3 Repair frames |
| | |
| 1. 5. Conduct final checking procedures | 5.1 Confirm the appliance against the prescription prior to delivery |
| | 5.2 Check that the correct type and form of lens was used in line with client requirements |
| | 5.3 Check lens treatments for quality |
| | 5.4 Check that the correct frame has been used in line with client request |
| | 5.5 Carry out and confirm standard frame alignment |
| | 5.6 Confirm completion of job |

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the essential skills and knowledge and their level required for this unit.

Essential knowledge

The candidate must be able to demonstrate essential knowledge required to effectively do the task outlined in elements and performance criteria of this unit, manage the task and manage contingencies in the context of the identified work role

This includes knowledge of:

- Drilled rimless frames including mounts and rimless types and equipment needed
Relevant Australian standards
- Filter and tinted lens processes including:
 - Australian standards
 - plastic lens tinting including dyes and tint types, equipment, preparation, problems and solutions
 - transmission testing including equipment and instrumentation, equipment limitations

REQUIRED SKILLS AND KNOWLEDGE

and Australian standards

- Frame measurement systems including boxing and datum
- Glazing techniques
- Impact resistant safety lenses including:
 - advantages and disadvantages
 - Australian standards for both general purpose and industrial use
 - evaluation of materials including glass, CR39, higher index plastics, polycarbonate and laminates
 - impact resistance
 - impact testing requirements, conditions and procedures
 - principles and processing of thermal and chemical toughening
 - problems and special lens requirements
- Scope of metal and plastic frame material including heating, manipulation, adjusting, handling and repair
- Standard nylon rims including the equipment needed
- The properties of lens
- The use of impact resistant protective lenses
 - Vacuum coatings including:
 - absorptive (tinted) coatings
 - handling, cleaning and care of coatings
 - manufacturing processes
 - multiple layer AR coatings
 - single AR coating
 - surface reflections and ghost images

Essential skills

It is critical that the candidate demonstrate the ability to effectively do the task outlined in elements and performance criteria of this unit, manage the task and manage contingencies in the context of the identified work role

This includes the ability to:

- Apply drilling techniques
- Calculate minimum size uncut (MSU) using centration chart and by calculation to allow for PD and decentration for prism
- Correctly and accurately use a focimeter (lensmeter) including:
 - correct neutralisation
 - determination of powers
 - determination of axes
 - determination of prism

REQUIRED SKILLS AND KNOWLEDGE

- determination of centration
- determination of additions
- Undertake automatic edging including:
 - machine designs
 - blocking/chucking systems
 - edging wheel designs and characteristics
 - machine operation
- Apply grooving techniques
- Fit standard nylon rims
- Hand edge using both hand bevelling techniques and safety chamfering
- Handle glass and plastic lens material
- Handle metal and plastic frame material
- Identify and explain the nature of vacuum coatings
- Interpret manufacturer's transmission curves
- Interpret transmission and absorption data
- Mount lens
- Rectify off-axis lenses
- Repair and service nylon rims
- Transpose a prescription
- Undertake digital frame tracing
- Undertake frame servicing and adjustments
- Use appropriate techniques to inset lens and fit frames
- Use lens samples and to match samples
- Undertake special hand edging techniques including:
 - changeovers
 - nasal cut and nasal add (antinasal)
- Use problem solving techniques in reducing unwanted vertical and/or horizontal prism

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, the Range Statement and the Assessment Guidelines for this Training Package.

EVIDENCE GUIDE

Critical aspects for assessment and evidence required to demonstrate this competency unit:

- The individual being assessed must provide evidence of specified essential knowledge as well as skills
- Observation of actual or simulated workplace performance is essential for assessment of this unit
- Consistency of performance should be demonstrated over the required range of situations relevant to the workplace
- Where, for reasons of safety, space, or access to equipment and resources, assessment takes place away from the workplace, the assessment environment should represent workplace conditions as closely as possible

Context of and specific resources for assessment:

- Resources essential for assessment include:
 - Access to an optical appliance manufacturing workplace

Method of assessment

- Observation in the workplace (if possible)
- Written assignments/projects or questioning should be used to assess knowledge
- Case study and scenario as a basis for discussion of issues and strategies to contribute to best practice
- Questioning
- Role play/simulation

Access and equity considerations:

- All workers in the health industry should be aware of access and equity issues in relation to their own area of work
- All workers should develop their ability to work in a culturally diverse environment
- In recognition of particular health issues facing Aboriginal and Torres Strait Islander communities, workers should be aware of cultural, historical and current issues impacting on health of Aboriginal and Torres Strait Islander people
- Assessors and trainers must take into account relevant access and equity issues, in particular relating to factors impacting on health of Aboriginal and/or Torres Strait Islander clients and communities

EVIDENCE GUIDE

Related units:

It is recommended that this unit be assessed in conjunction with the following related unit:

- HLTOPT401B Perform technical procedures for the production of ophthalmic appliances

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. Add any 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.

Relevant equipment may include:

- The following pieces of equipment and instruments
 - hand edging equipment
 - automatic edgers
 - focimeters (lensmeters)
 - marking/centration devices
 - calibration and checking tools
 - frame alignment tools

Lens material includes:

- Mineral material
- Organic material

Fame material includes:

- Metals
- Plastics

RANGE STATEMENT

Repairing and modifying spectacle frames must include:

- Soldering metal frames
- Undertaking frame part replacements including
 - temples
 - fronts
 - pads
 - screws
- Refitting nylon
- re-pinning and riveting joints
- sink joints
- Alignment

Atypical

- Occupationally specific appliances including diving masks, swimming goggles
- Low visual aids
- Wrap frames

Technology may include:

- Computer technology, such as laptops and desktops
- Digital cameras
- Zip drives
- Modems
- Scanners
- Printers
- Industry specific equipment

Software applications may include:

- Email, internet
- Word processing, spreadsheet, database, accounting, or presentation packages
- Industry specific software

Routine maintenance may include:

- Regular checking of equipment
- Replacing consumables
- 'In-house' cleaning and servicing of equipment according to manufacturer's guidelines
- Periodic servicing by qualified or manufacturer approved technician

RANGE STATEMENT

Equipment faults or problems may be identified or anticipated by:

- Routine checking of equipment
- Preparation of a maintenance program
- Encouraging feedback from work colleagues
- Regular back-up of data
- Keeping a log book of detected faults
- Regular occupational health and safety inspections
- Checking that repairs have been carried out

Unit Sector(s)

Not Applicable