



Australian Government

Department of Education, Employment and Workplace Relations

HLTOPD402C Perform edging and fitting

Release: 1

HLTOPD402C Perform edging and fitting

Modification History

HLT07 Version 4	HLT07 Version 5	Comments
HLTOPD402B Perform edging and fitting	HLTOPD402C - Perform edging and fitting	Unit updated in V5. ISC upgrade changes to remove references to old OHS legislation and replace with references to new WHS legislation. No change to competency outcome.

Unit Descriptor

Descriptor

This unit of competency describes the skills and knowledge required to perform edging and fitting of spectacle lenses and to apply specialised techniques, treatments and processes to finish and/or repair spectacle frames and lenses

Application of the Unit

Application

Work performed includes the workshop skills of edging and fitting spectacle lenses and undertaking corrections and repairs to optical appliances

All tasks are conducted in accordance with industry standards, organisation policies and procedures, and infection control guidelines

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

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|-------------------------------------|--|
| 1. Prepare for edging and fitting | 1.1 Access required information and prescriptions |
| | 1.2 Prepare the environment |
| | 1.3 Check equipment and instruments to be used |
| | 1.4 Use personal protective equipment if required |
| 2. Operate <i>optical equipment</i> | 2.1 Use optical equipment to edge and fit lenses |
| | 2.2 Clean equipment and attachments in accordance with manufacturer's requirements and infection control procedures |
| | 2.3 Undertake regular maintenance procedures on equipment in accordance with manufacturers requirements and infection control procedures |
| | 2.4 Store equipment and attachments in accordance with manufacturer's requirements and organisation policies and procedures |

ELEMENT**PERFORMANCE CRITERIA**

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|---|--|
| 3. Perform edging and fitting | 3.1 Prepare for the edging of spectacle lenses |
| | 3.2 Edge lenses |
| | 3.3 Fit lenses to both plastic and metal frames |
| | 3.4 Use special hand-edging techniques to modify lenses for change-overs and centring corrections |
| | 3.5 Edge, groove and mount spectacle lenses to nyl-tag frames |
| | 3.6 Edge, drill and mount spectacle lenses to rimless frames |
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| 4. Perform frame adjustments, repairs and lens treatments | 4.1 <i>Repair and modify</i> spectacle frames |
| | 4.2 Standard alignment of frames |
| | 4.3 Produce tinted lenses to required standards |
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| 5. Utilise computer <i>technology</i> | 5.1 Select appropriate technology and <i>software applications</i> to achieve the requirements of the task |
| | 5.2 Adjust workspace, furniture and equipment to suit the ergonomic requirements of the user |
| | 5.3 Use technology according to organisation requirements and in a way which promotes a safe work environment |
| | 5.4 Carry out or arrange <i>routine maintenance</i> in order to ensure that equipment is maintained in accordance with manufacturer's instructions and organisation requirements |
| | 5.5 Identify <i>equipment faults</i> and take action in accordance with manufacturer's instructions or by reporting fault to designated person |

ELEMENT	PERFORMANCE CRITERIA
1. 6 Conduct final checking procedures	<p>6.1 Determine any axis or centring error and apply Australian standards tolerances.</p> <p>6.2 Check the spectacles on the focimeter to verify powers, axes and centration</p> <p>6.3 Check lens surface for scratching and aberrations</p> <p>6.4 Adjust the frame to standard alignment</p> <p>6.5 Check metal framed spectacles for strain</p> <p>6.6 Clean spectacles</p>

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 Frame measurement systems including boxing and datum
- 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 and Australian standards
- 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
- Relevant Australian Standards
- 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
- Apply grooving techniques
- Calculate minimum size uncut (MSU):
 - 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 additions
 - determination of axes
 - determination of centration
 - determination of powers
 - determination of prism
- Eliminate errors in templates
- 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

- Make templates using:
 - hand techniques
 - machine techniques
- Mount lens
- Repair and service nylon rims
- Take into account opportunities to address waste minimisation, environmental responsibility and sustainable practice issues
- Transpose a prescription
- Undertake digital frame tracing
- Undertake automatic edging including:
 - blocking/chucking systems
 - edging wheel designs and characteristics
 - machine designs
 - machine operation
- Undertake frame adjustments
- Undertake frame servicing
- Undertake special hand edging techniques including:
 - changeovers
 - nasal cut and nasal add (antinasal)
- Use appropriate techniques to inset lens and fit frames
- Use lens samples and to match tint samples
- Use problem solving techniques
 - rectifying off-axis lenses
 - reducing unwanted vertical and/or horizontal prism

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.

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:

- Assessment should replicate workplace conditions as far as possible
- Resources essential for assessment include:
 - automatic edgers
 - hand edgers
 - blockers
 - markers
 - focimeters (lensmeters)
 - nylon groover
 - drill
 - clavulus
 - parallel rules
 - PD rules
 - frame tools
 - frames
 - lenses
 - adhesive and protection pads
 - formers
 - frame heater
 - soldering unit, tint bath and dyes to the list of resources for assessment

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
- Projects
- Practical tests

- 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

Related units:

The following competency unit should be undertaken before or with this unit:

- HLTOPD401C Work effectively in the ophthalmic industry

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.

RANGE STATEMENT

Optical equipment may include:

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

Lens material includes:

- Glass material
- Plastic material

Frame material includes

- Metals
- Plastics

Repair and modify spectacle frames must include:

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

Waste materials may include:

- Inflammable and volatile
- Liquid
- Solid
- Toxic
- Waste water
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RANGE STATEMENT

Technology may include:

- Computer technology, such as laptops and desktops
- Digital cameras
- Zip drives
- Modems
- Scanners
- Printers
- Industry specific equipment
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Software applications may include:

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

Routine maintenance may include:

- "In--house" cleaning and servicing of equipment according to manufacturer's guidelines
- Periodic servicing by qualified or manufacturer approved technician
- Regular checking of equipment
- Replacing consumables
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Equipment faults or problems may be identified or anticipated by:

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

Not Applicable