Australian Government

Department of Education, Employment and Workplace Relations

ICPPP481C Design complex carton

Revision Number: 1

ISC INDUSTRY SKILLS COUNCILS
Creating Australia's Future

ICPPP481C Design complex carton

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit describes the performance outcomes, skills and knowledge required to design cartons for which no templates exist.

Application of the Unit

Application of the unit	This unit requires the individual to design an original complex carton that meets job specifications and substrate characteristics, and then produce an accurate example.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

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. Assess the requirements of the brief	1.1. Discuss brief with client to ensure requirements are understood 1.2. Check that all relevant information is in the brief ie end use, dimensions and product characteristics
2. Design carton to suit requirements of the brief	2.1. Determine appropriate carton style, size, material and calliper to meet the client brief 2.2. Use scanners or digitisers to import ***design material*** into computer program 2.3. Draw design using computer program 2.4. Set height, width and depth and gluing flap dimensions to meet the requirements of the client brief 2.5. Requirements for knife setting, stripping and gluing in production are checked and position is designed so as to have correct grain direction and to maximise use of material
3. Use plotter to cut sample	3.1. Output device (eg plotter) is set up ready for downloading design 3.2. Cutting and creasing depths are set 3.3. Calliper of material is checked 3.4. Material is positioned correctly 3.5. Output device is operated safely according to manufacturer's specifications and enterprise procedures 3.6. Routine machine maintenance is carried out
4. Assemble sample	4.1. Sample is cut by hand adopting safe practices 4.2. Cut sample is folded and glued by hand ensuring that angles and construction are correct
5. Check and adjust design	5.1. Sample is checked for conformance to the client brief 5.2. Design is adjusted if necessary to meet job specifications
6. Output design	6.1. Design is saved ready for downloading to forme cutter 6.2. Design is outputted as keyline for artwork or as film as required 6.3. Relevant paperwork is completed

Innovation and Business Skills Australia

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE
This section describes the skills and knowledge required for this unit.

Required skills
• OHS in relation to operating machinery such as safely switching off machinery before cleaning is started • communication of ideas and information by interpreting the job brief and discussing possibilities with the client • collecting, analysing and organising information by matching the job brief with data on carton types, designs and materials • planning and organising activities by planning the sequence of operations to facilitate processing • teamwork when maintaining the production process in association with others • mathematical ideas and techniques by calculating sizes, callipers and efficient use of materials • problem-solving skills by recognising and fixing problems with samples • use of technology by using equipment correctly to ensure efficient output and accurate designs

Required knowledge
• health and safety concerns when using computers, plotters and scanners? • affect of board grain on carton design • affect of board calliper on carton design • correct use of a micrometer • appropriate board for a product • scuff, heat and moisture resistance • effect inks and sealants have on board characteristics and selection • computer programs that are available for carton design • programming a new design on the computer system • uses and limitations of digitisers and scanners • using digitisers and scanners • types of products that cartons are used for • determining if a design is appropriate for its end use • effect on design and materials refrigeration has • aspects of product sizing and tolerances that should be rechecked • setting tolerances in a design • stability in a display carton • determining appropriate strength • determining appropriate size and placing of glue lines and nips • carton designs that are suitable for machine packing

REQUIRED SKILLS AND KNOWLEDGE

- carton designs that are suitable for hand packing
- constraints on design and positioning on the forme that are caused by the requirements of knife making and production
- manufacturing requirements with regard to cutting and gluing affect carton design
- appropriate angles and cornering of flaps
- the main features of, and differences between, different graphic design software programs that need to be considered when outputting carton designs
- ensuring that output is appropriate for the graphic design software used by the customer
- manuals, safety and other documentation that are relevant to this task and where are they kept and information that is included in these documents
- other sources of information that are available

Innovation and Business Skills Australia

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 ability to: • the sample carton accurately meets the client brief and substrate characteristics • demonstrate an ability to find and use information relevant to the task from a variety of information sources • produce TWO different complex carton designs.
Context of and specific resources for assessment	Assessment must ensure: • assessment may take place on the job, off the job or a combination of these. Off the job assessment must be undertaken in a closely simulated workplace environment.
Method of assessment	A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit: • direct questioning combined with review of portfolios of evidence and third party workplace reports of on-the-job performance by the candidate.
Guidance information for assessment	Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended.

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.	
Types of design may include:	• full range of cartons including sleeves, tucks, full flap, auto lock, crash lock, trays and other special designs for which there are no existing templates on the computer.
Design tools may include:	• appropriate computer programs, output devices, plotters, scanners, digitisers.
Quality standards may include:	• should meet client requirements and enterprise and industry standards.

Unit Sector(s)

Unit sector	

Competency field

Competency field	Pre-press

Co-requisite units

Co-requisite units		