



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **ICPKN321A Apply knowledge and requirements of digital production**

**Revision Number: 1**

## ICPKN321A Apply knowledge and requirements of digital production

### Modification History

Not applicable.

### Unit Descriptor

<b>Unit descriptor</b>	<p>This unit describes the performance outcomes, skills and knowledge required to work in or deal with information technology systems in the digital printing industry. It facilitates technical communication and the ability to work as a team member.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.</p>
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### Application of the Unit

<b>Application of the unit</b>	<p>Individuals working in the digital printing industry who are responsible for assisting and dealing with digital production workflow, such as job creation, printing and finishing typically apply the skills and knowledge outlined in this unit.</p>
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### Licensing/Regulatory Information

Not applicable.

### Pre-Requisites

<b>Prerequisite units</b>		

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## 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.
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Apply knowledge of printing industry	1.1. Printing industry terminology and vocabulary are used correctly and accurately 1.2. New technology and new work processes are monitored and implemented when required 1.3. Trends within the printing industry are monitored on an ongoing basis to inform personal work practices
2. Apply knowledge of Government Acts and regulations	2.1. Basic principles and obligations for copyright, occupational health and safety (OHS), environmental protection, access and equity and industrial awards are researched and evaluated 2.2. Basic principles and obligations for copyright, OHS, environmental protection, access and equity and industrial awards are followed and applied in the workplace
3. Apply knowledge of digital production processes	3.1. The principles behind basic layout production, image manipulation, digital output and workflow are identified and applied where possible in the workplace 3.2. Proofing processes and principles are applied to meet client needs 3.3. Raster image processor (RIP) and front-end processor functions are applied to meet job specifications 3.4. The effective use of software applications for producing digital products is evaluated
4. Apply knowledge of digital printing processes	4.1. Basic principles of toner, inkjet or liquid toner-based, are evaluated to inform decisions made for different jobs 4.2. The types of jobs and products for each process are considered to ensure appropriate choices are made to meet client needs 4.3. The capabilities and limitations of each process are reviewed for different jobs
5. Apply knowledge of substrates and consumables	5.1. The range of <i>substrates</i> used for each printing process are researched and evaluated for different jobs 5.2. Different weights and callipers of substrates and how they affect digital production operations are researched and evaluated for different jobs

ELEMENT	PERFORMANCE CRITERIA
	<p>5.3. Paper grain and how it affects digital production and finishing operations are researched for different jobs</p> <p>5.4. Different properties of digital consumables, and how they effect digital production operations are researched for different jobs</p>
6. Apply knowledge of colour theory	<p>6.1. <b>Colour theory</b> is used to inform digital production and/or design decisions</p> <p>6.2. Colour matching systems are used to inform digital production and/or design decisions</p> <p>6.3. Procedures that ensure effective colour management are implemented</p>
7. Apply knowledge of converting and finishing processes	<p>7.1. Basic characteristics of <b>converting and finishing</b> processes are identified and considered for different jobs</p> <p>7.2. The types of processes are evaluated and used to inform decisions made for different jobs</p>
8. Demonstrate knowledge of production management systems	<p>8.1. The types of information that need to be exchanged between different stages of production to facilitate production efficiency are identified and used to inform development decisions</p> <p>8.2. <b>Information technology systems</b> that can be used to exchange information between and within companies are identified and used</p> <p>8.3. Efficient production management information systems are established and applied to inform development decisions</p>

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

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

#### Required skills

- OHS skills for using correct ergonomics when operating the computer
- communication skills for transferring ideas and information by accurately using correct printing industry terminology and vocabulary
- analysing and organising skills used when applying basic principles of efficient production management
- teamwork skills for maintaining the production process in association with others
- numeracy skills for determining weights and callipers of substrates
- problem-solving skills for checking and adjusting procedures
- technical skills for using relevant hardware and software to produce a layout

#### Required knowledge

- colour theory
- converting and finishing processes
- digital production processes
- Government Acts and regulations
- production management systems
- substrates and consumables

## Evidence Guide

<b>EVIDENCE GUIDE</b>	
<p>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.</p>	
<b>Overview of assessment</b>	
<b>Critical aspects for assessment and evidence required to demonstrate competency in this unit</b>	<p>Evidence of the ability to:</p> <ul style="list-style-type: none"> <li>• demonstrate knowledge of digital production and related production processes so that job procedures, requirements and modifications have been implemented to job specifications</li> <li>• establish and apply efficient production management information systems and accurately explain these systems to the production manager or client.</li> </ul>
<b>Context of and specific resources for assessment</b>	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> <li>• that conditions are typical ambient conditions found in the workplace</li> <li>• access to relevant facilities, equipment and materials used for digital printing</li> <li>• use of culturally appropriate processes and techniques appropriate to the language and literacy capacity of learners and the work being performed.</li> </ul>
<b>Method of assessment</b>	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> <li>• direct questioning combined with review of portfolios of evidence</li> <li>• third party workplace reports of on-the-job performance by the candidate</li> <li>• practical demonstration by the candidate when applying production management information systems.</li> </ul>
<b>Guidance information for assessment</b>	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended.</p> <p>For valid and reliable assessment of this unit, evidence should be gathered over a period of time through a range of methods for assessment to indicate consistent performance.</p>





## 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.

<b><i>Substrates</i></b> may include:	<ul style="list-style-type: none"> <li>• print media and paper:             <ul style="list-style-type: none"> <li>• coated</li> <li>• uncoated</li> <li>• card</li> <li>• canvas</li> <li>• vinyl and plastic.</li> </ul> </li> </ul>
<b><i>Colour theory</i></b> may include:	<ul style="list-style-type: none"> <li>• additive and subtractive</li> <li>• colour modes, such as:             <ul style="list-style-type: none"> <li>• red, green, blue (RGB)</li> <li>• cyan, magenta, yellow, black (CMYK)</li> <li>• LAB</li> </ul> </li> <li>• colour rules, such as:             <ul style="list-style-type: none"> <li>• analogous</li> <li>• complementary</li> <li>• triad.</li> </ul> </li> </ul>
<b><i>Converting and finishing</i></b> may include:	<ul style="list-style-type: none"> <li>• guillotining</li> <li>• flat-bed and rotary cutting</li> <li>• collating</li> <li>• folding</li> <li>• adhesives</li> <li>• mechanical and thermal fastening.</li> </ul>
<b><i>Information technology systems</i></b> may include:	<ul style="list-style-type: none"> <li>• computer networks</li> <li>• databases</li> <li>• internet.</li> </ul>

## Unit Sector(s)

<b>Unit sector</b>	
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## Competency field

<b>Competency field</b>	Knowledge
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