

Demonstrate knowledge of colour and ink requirements for pad printing

Level 3

Credits 8

Purpose People credited with this unit standard are able to demonstrate knowledge of: halftones; colour theory and colour terms; inks and additives; and ink drying systems and equipment used in pad printing.

Subfield Printing

Domain Pad Printing

Status Registered

Status date 18 July 2008

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Entry information Open.

Accreditation Evaluation of documentation and visit by NZQA and industry.

Standard setting body (SSB) Competenz

Accreditation and Moderation Action Plan (AMAP) reference 0005

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

Special notes

None.

Elements and performance criteria

Element 1

Demonstrate knowledge of halftones.

Performance criteria

1.1 Use of halftone and line film is described in terms of reproducing an original copy.

- 1.2 Halftone screen ruling applications are described for different kinds of substrates and methods of printing.

Range coarse screens, fine screens, moiré patterns.

Element 2

Demonstrate knowledge of colour theory and colour terms.

Performance criteria

- 2.1 Colour theory is explained in terms of additive colours (red, green, and blue light).
- 2.2 Colour theory is explained in terms of subtractive colours (cyan, magenta, and yellow pigments).
- 2.3 Ranges of visual colour, red, green, blue (RGB) and cyan, magenta, and yellow and black (CMYK) are explained in terms of their relationship to each other.
- 2.4 Demonstration of knowledge includes use of colour terms relevant to pad printing.
- Range may include but is not limited to – chromatic, achromatic, mono chromatic, poly chromatic, colour, primary colours, secondary colours, tertiary colours, analogous colours, complementary colours, additive colours, subtractive colours, light fast, temperature, perspective, hue, brightness, value, purity, chroma, intensity saturation.
- 2.5 Correct viewing conditions are explained in terms of their importance to the use of colour.

Element 3

Demonstrate knowledge of inks and additives for pad printing.

Performance criteria

- 3.1 Different types of pad printing inks are described in terms of their characteristics.
- Range inks – solvent evaporating, oxidation curing, reactive (ie catalyst curing, two component), baking, ultraviolet (UV) curable, sublimation, thermoplastic (ceramic, glass).
- 3.2 Additives used in pad printing are described in terms of their uses.
- Range adhesion modifiers, antistatic agents, catalysts (hardeners), flow agents, matt and gloss agents, retarders, thinners.

Element 4

Demonstrate knowledge of ink drying systems and ink drying equipment used in pad printing.

Performance criteria

- 4.1 Ink drying systems are described in terms of functions.
Range evaporation, oxidation, thermosetting, catalytic, radiation curing.
- 4.2 Ink drying equipment is identified and its uses in pad printing are described.
Range rack, wicket, jet air, drying tunnel, UV, infra-red (IR).
- 4.3 Factors affecting the ink drying process are described for pad printing.
Range ink substrate, speed of printing, air temperature, humidity, light, radiation intensity.

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 [Competenz info@competenz.org.nz](mailto:Competenz_info@competenz.org.nz) if you wish to suggest changes to the content of this unit standard.