# GQA LEVEL 3 NVQ DIPLOMA IN DIGITAL PRE PRESS FOR PRINT

**Qualification Number**

600/0609/2

**Welsh Qualification Number**

C00/1250/8

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# PERSONAL COMPETENCE SUMMARY

| Name | Company/Centre |
|---|---|
| Job Title | GQA Registration Number |

| | UNITS OF COMPETENCE | | | ASSESSOR SIGNATURE Performance and knowledge assessment completed and supplemented with evidence overtime | DATE |
|---|---|---|---|---|---|
| Unit Number | Mandatory Units | Level | Credit | | |
| D/601/9393<br>PR999 | Contribute to Improving the Effectiveness of the Print Organisation | 3 | 5 | | |
| T/502/8526<br>PR126 | Maintain Digital Systems In Working Order | 3 | 4 | | |
| J/502/8501<br>PR120 | Plan work to meet production requirements | 3 | 4 | | |
| L/601/9390<br>PR002 | Promote and Maintain Health and Safety in a Print Related Working Environment | 3 | 4 | | |
| Y/502/8504<br>PR124 | Send and Receive Digital Files | 2 | 1 | | |
| L/601/9406<br>PR998 | Understanding the Print Industry | 3 | 4 | | |
| Digital Printing (Mandatory) (Pathway - Mandatory - Credits: 6 Minimum) | | | | | |
| J/502/8529<br>PR247 | Manage Colour Digital Printing Machines | 3 | 6 | | |
| Digital Printing (Optional) (Pathway - Optional - Credits: 9 Minimum) | | | | | |
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| Digital Artwork (Mandatory) (Pathway - Mandatory - Credits: 7 Minimum) | | | | | |
| A/502/8558<br>PR711 | Design And Produce Creative Digital Colour Artwork For Print | 3 | 7 | | |
| Digital Artwork (Optional) (Pathway - Optional - Credits: 8 Minimum) | | | | | |
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RELIABLE EVIDENCE: The forms of evidence available include ( mark as appropriate)

Passport Style Candidate Photo (Mandatory)

| | | | |
|---|---|---|---|
| Observation in the workplace | ☐ | Assessment of knowledge | ☐ |
| Records of prior experience | ☐ | Witness statement(s) | ☐ |
| Testimonial(s) | ☐ | Photographic evidence | ☐ |
| Work records | ☐ | External testing | ☐ |

COMPETENCE COMPLETION SIGNATURES

By signing here, the Candidate and Assessor confirm that evidence presented is authentic and that the assessments took place in accordance with the relevant assessment strategy. Details of the assessments and evidence must be recorded in the assessment decision record/summaries at the end of each unit.

| | Name and Signature | Date |
|---|---|---|
| Candidate | | |
| Lead Assessor | | |
| IQA | | |
| EQA | | |

# Introduction to the Qualification

## Who is this Qualification for?

This qualification is aimed at those who work within a commercial production environment, with responsibilities for Digital Artwork or Digital Print Production. The standards cover the most important aspects of the job. This qualification is at Level 3, and should be taken by those who have the responsibility for managing the equipment used within their area of responsibility, including monitoring and controlling the quality of output using a range of methods, and who are responsible for ensuring the Production records are completed in line with Company requirements. A further qualification at Level 2 is also available. In addition, there are qualifications available to cover Machine Printing and Print Finishing job roles. Candidates for this qualification will need to contribute to improving efficiency in the completion of the Company objectives, promote the Company Health and Safety guidelines and policies and in addition will have varied duties according to the relevant pathway, for example:

Those involved in Digital Printing will primarily be involved in:

- Operating Digital Printing machines
- Equipment maintenance

Those involved in Digital Artwork will primarily be involved in:

- Creating digital artwork for print
- Handling digital files
- Working with digital images

Candidates are likely to have jobs entitled:

- Desk Top Publisher/Artworker
- Digital Printer

## What is required from candidates?

GQA Qualifications are made up of a number of units that have a credit value. These credits must be achieved in the correct combination from mandatory and optional units, and in some cases from specific pathways. This qualification includes separate pathways for Digital Printing and Digital Artwork. To achieve the qualification, candidates must complete all 6 mandatory units, and then the required credits from one of the 2 pathways. The Pathways are intended to allow all those involved in Pre-Press for Print to achieve the full qualification: when choosing from the optional units within the pathway it is essential to ensure the units selected are appropriate and achievable within your job role. When selecting the optional units it is necessary to have or be able to gain the skills, knowledge and opportunity to demonstrate competence to the Assessor in the workplace. This qualification has a minimum credit value of 37 credits. Qualifications are now required to indicate the total qualification time (TQT), this is to show the typical time it will take someone to attain the required skills and knowledge to meet the qualification criteria, this qualification has a TQT of 370 hours. Qualifications are also required to indicate the number of hours of teaching someone would normally need to receive in order to pass the qualification. These are referred to as Guided Learning Hours (GLH). The GLH for this qualification is 153

| Unit Ref | Title | Level | Credit |
|---|---|---|---|
| **Mandatory Units** | | | |
| D/601/9393 | Contribute to Improving the Effectiveness of the Print Organisation | 3 | 5 |
| PR999 | | | |
| T/502/8526 | Maintain Digital Systems In Working Order | 3 | 4 |
| PR126 | | | |
| J/502/8501 | Plan work to meet production requirements | 3 | 4 |
| PR120 | | | |
| L/601/9390 | Promote and Maintain Health and Safety in a Print Related Working Environment | 3 | 4 |
| PR002 | | | |
| Y/502/8504 | Send and Receive Digital Files | 2 | 1 |
| PR124 | | | |
| L/601/9406 | Understanding the Print Industry | 3 | 4 |
| PR998 | | | |

| | | | |
|---|---|---|---|
| **Digital Printing (Mandatory) (Pathway - Mandatory - Credits: 6 Minimum)** | | | |
| J/502/8529 | Manage Colour Digital Printing Machines | 3 | 6 |
| PR247 | | | |
| **Digital Printing (Optional) (Pathway - Optional - Credits: 9 Minimum)** | | | |
| F/502/8531 | Control The Use Of Variable Data With Digital Printing Machines | 3 | 4 |
| PR248 | | | |
| A/601/9417 | Set and Run Guillotines | 2 | 5 |
| PR357 | | | |
| H/601/9430 | Set and run booklet making machinery | 2 | 5 |
| PR356 | | | |
| Y/601/9439 | Set and Run multi-knife trimming machinery | 2 | 4 |
| PR364 | | | |
| Y/601/9392 | Materials Handling, Transportation and Storage within the Print Working Environment | 2 | 4 |
| PR312 | | | |
| R/502/8534 | Preflight Digital Files | 3 | 4 |
| PR130 | | | |
| J/502/8532 | Manage Colour Reproduction In Digital Pre-Press | 3 | 4 |
| PR122 | | | |
| L/502/8533 | Produce Approved Colour Proofs From Digital Artwork | 3 | 4 |
| PR128 | | | |
| A/502/8558 | Design And Produce Creative Digital Colour Artwork For Print | 3 | 7 |
| PR711 | | | |
| L/502/8502 | Output Digital Image Carriers for Print | 2 | 8 |
| PR129 | | | |
| **Digital Artwork (Mandatory) (Pathway - Mandatory - Credits: 7 Minimum)** | | | |
| A/502/8558 | Design And Produce Creative Digital Colour Artwork For Print | 3 | 7 |
| PR711 | | | |
| **Digital Artwork (Optional) (Pathway - Optional - Credits: 8 Minimum)** | | | |
| A/502/8513 | Use of scanning techniques to create digital images | 2 | 6 |
| PR125 | | | |
| J/502/8532 | Manage Colour Reproduction In Digital Pre-Press | 3 | 4 |
| PR122 | | | |
| L/502/8502 | Output Digital Image Carriers for Print | 2 | 8 |
| PR129 | | | |
| L/502/8533 | Produce Approved Colour Proofs From Digital Artwork | 3 | 4 |
| PR128 | | | |
| M/502/8511 | Plan and Produce Edited Images | 3 | 4 |
| PR127 | | | |
| R/502/8534 | Preflight Digital Files | 3 | 4 |
| PR130 | | | |
| D/502/8505 | Make photopolymer plates for flexographic printing | 2 | 4 |
| PR105 | | | |
| K/601/9400 | Make lithographic printing plates | 2 | 4 |
| PR251 | | | |
| K/502/8507 | Make Gravure Cylinders | 2 | 4 |
| PR106 | | | |
| M/502/8508 | Prepare Stencils for Printing | 2 | 4 |
| PR219 | | | |

Achieving all of the mandatory units and the correct number of credits from 1 of the pathways will mean the qualification has been completed and GQA will provide the Certificate with the qualification title.
Where a candidate has completed additional credits the Certificate will list these as “additional credits”, in cases where the candidate has not completed the full qualification and will not go on to do so, a Certificate of Credit can be issued for the credits achieved.

### Assessment guidance

Evidence should show that you can complete all of the learning outcomes for each unit being taken.

### Types of evidence:

Evidence of performance and knowledge is required. Evidence of performance should be demonstrated by activities and outcomes, and should be generated in the workplace only, unless indicated under potential sources of evidence (see below). Evidence of knowledge can be demonstrated through performance or by responding to questions.

### Quantity of evidence:

Evidence should show that you can meet the requirements of the units on a minimum of three occasions, in a way that demonstrates that the standards can be achieved consistently over an appropriate period of time.

### Potential sources of evidence:

The main source of evidence for each unit will be observation of the candidate’s performance and knowledge demonstrated during the completion of the unit. This can be supplemented by the following types of physical or documentary evidence:

- Accident books/reporting systems
- Notes and memos
- Safety records
- Photographic/video evidence
- Training records/reviews
- Job bags/works instruction tickets
- Job samples
- Customer feedback (internal or external)
- Witness testimonies
- Production records

Examples of evidence could include:

- Assessor observation reports
- Screen dumps
- Quality/production records
- Printed output (good and fault copies)
- Proof copies
- Witness testimonies
- Job bags/work instruction tickets/production records
- Examples of maintenance and/or records
- Examples of component replacement and/or records
- Use of equipment inc PPE
- Emergency procedures, risk assessments, accident reporting systems
- Tutor and employer feedback/reviews
- Photographic evidence
- Professional discussion
- Responses to oral and written questions
- Written narrative

**Please note that photocopied or downloaded documents such as manufacturers’ or industry guidance, H&S policies, Risk Assessments etc, are not normally acceptable evidence for GQA qualifications unless accompanied by a record of a professional discussion or Assessor statement confirming candidate knowledge of the subject. If you are in any doubt about the validity of evidence, please contact your GQA EQA.**

# GQA Qualification Implementation Requirements covering Centre Approval, Candidate Assessment and ongoing Quality Assurance

This document indicates the requirements of Approved Centres delivering GQA qualifications and / or units of credit.

**1. Equality of Opportunity**
Equality of access to fair and valid assessment is necessary for all candidates undergoing assessment. This may mean making reasonable adjustments to normal assessment methods for candidates with particular or special assessment requirements. Candidates work patterns should not become a barrier to assessment, the organisation of which may have to be flexible. In the same way, reasonable adjustment arrangements may be necessary for candidates with a disability. For example, a candidate who is unable, through disability, to produce oral or written evidence, may be allowed to use the method they normally use as a substitute for the required form of communication. Reasonable adjustments need to be approved by GQA.

**2. Recognised/Approved Assessment Centres**
2.1 Individual centres must be approved by GQA to offer specific qualifications and / or units of credit. A centre may be a single organisation or a partnership of two or more organisations. It may operate at a single location or have satellites. For further details see the GQA booklet "Guide to Centre Approval". The Centre Approval process is carried out by a GQA approved EQA. Each Centre must maintain a centre file. It is important to be clear what the steps in the assessment process are:
• plan evidence collection and opportunities for assessment
• collect evidence
• judge evidence
• determine whether sufficient evidence has been presented
• make an assessment decision and give feedback to the candidate

**NB Any deviation from the norm must be approved by a GQA EQA**

**2.2 Assessors and Verifiers**

All Assessors of candidate performance must be competent, to make qualitative judgements, both in the skills they are assessing and in the assessment of candidates and hold the appropriate Assessor national award. Assessor occupational knowledge related to the qualifications being assessed is essential and must be illustrated to GQA prior to approval.

IQA's are responsible for the quality assurance of the assessment process within a centre. They should have a relevant occupational background, be competent in internal verification and hold the IQA national award. It is recommended that IQA's work towards national recognition of assessor competence.

EQAs are responsible for ensuring accurate and consistent standards of assessment across centres, qualifications, units of credit and over time. They should have a relevant occupational background, be competent in external verification and hold the EQA national award
GQA will approve and licence all individuals involved in the assessment and verification of its approved qualifications and / or units of credit. Individuals who are working towards the Assessor or IQA national awards can only be provisionally licensed. The judgement of provisional licence holders will need to be agreed/authorised by a fully qualified and GQA licensed individual who cannot carry out a dual role in relation to a specific candidate.

All GQA Assessors and Verifiers must undertake a minimum of 2 significant CPD activities in both occupational areas and assessment and verification. Reflective CPD records must be maintained and made available to GQA EV's for review.

**2.3 Centre Approval, Monitoring Reviews and Quality Assurance**
The centre recognition/approval process is the start of a significant part of the awarding body's quality assurance system. The Approval process will begin with an EQA review of centre procedures to ascertain the potential centres ability to deliver GQA qualifications and / or units of credit. Centres will be expected to meet the relevant regulatory authority criteria for delivery of qualifications prior to initial approval; continued compliance with the criteria will be monitored through regular EQA visits. It is recommended that centre reviews are conducted at minimum every six months by a GQA EQA.

New or multi-site centres may be required to undertake quarterly or more frequent EV reviews to ensure that different locations can be seen to satisfy the national requirements.

GQA will ensure that unacceptable barriers relating to the assessment and internal verification of candidates in small companies do not deny recognition of competence to competent young workers. In such circumstances, GQA will demonstrate that its quality assurance procedures remain sufficient and rigorous to ensure that the competence outcomes have standing and credibility in the occupational area.

Enhanced quality procedures to ensure consistency of assessment and verification will be necessary and will include:
• a high level of sampling of assessment decisions N.B. In some instances the EQA may visit each assessment location and qualification / unit of credit candidate (e.g. single candidates dispersed throughout different small companies on government funded programmes)
• an in-depth scrutiny of assessment plans, materials and records
• specific centre guidance aimed at the successful implementation of qualifications and / or units of credit in SMEs via approved centre partnerships. This can include guidance on the quantity and quality of valid, authentic, and transferable evidence expected to be attributed to individual candidates
• ensuring centres are following the requirements prescribed in any appropriate assessment strategies and applicable codes of practice
• the identification and publication of good practice in centres

As part of the Quality Assurance process Proskills require an Enhanced External Verification process. This will be in the form of 1 significant underpinning knowledge question answered by the candidate for each unit of the qualification. The questions will be decided by GQA, and guideline answers must be submitted for approval and once approved kept in the Centre File to allow independent assessment

**3. Qualification / Unit of Credit Candidates**
All candidates must register with a GQA recognised/approved centre. The centre must maintain appropriate candidate personal details for external audit purposes etc.
The centre will provide candidates with advice and guidance on how to prepare for assessment and allocate an Assessor who will assess candidate ability to meet the requirements of the relevant qualifications / unit of credit. It is the candidate's responsibility to demonstrate competence and to do this they must:
• prove they can consistently meet all the qualification and / or unit of credit criteria
• provide evidence from work, that they can perform competently in all the contexts specified in the qualification / unit of credit requirements
• prove that they have the knowledge and understanding required to perform competently, even where they have not provided evidence from the workplace

It is therefore critical that quality evidence is provided in a format to allow the Assessor to make a decision and for the IQA to audit/verify his/her decision.

**4. Evidence**
A qualification and / or credit is awarded when a person has achieved the necessary outcomes of the qualification and / or unit of credit.
The specific combination of units necessary to achieve a qualification is detailed in the qualification structure. Certificates of Unit Credit can be awarded when candidates achieve any one, or more, units from the qualification.
The evidence the candidate brings forward is primarily evidence of performance of what he/she can do, not just what he/she knows. The assessment criteria / qualification requirements are described within the qualification and / or unit of credit itself and can incorporate practical skills and knowledge.
The assessor's role is to judge each relevant item of evidence. Each must be judged against the qualification and / or unit of credit requirements. It is not sensible to collect evidence against individual criteria. Nor is it effective. If items of evidence were collected for each of the criteria, the candidate may have to produce many items of evidence, well above the number actually required. GQA recommend holistic assessment.

When judging each item of evidence, the assessor is deciding whether the evidence:
• is authentic – i.e. actually produced by the candidate
• meets the criteria
• relates as appropriate to a context defined within the qualification and / or unit of credit
• confirms that the candidate has the required underpinning knowledge

When the assessor makes a decision about the candidate's competence, he or she examines all the evidence available to determine:
• if the evidence, as a whole, covers all the evidence of achievement
• whether the evidence indicates consistency in competent performance
• whether there is enough evidence on which to base an inference of competence
The answer can only be:
• yes (the candidate is competent)
• no (the candidate is not yet competent)
• there is insufficient evidence to make a decision

Consistency means that the individual is likely to achieve the standard in their work role, in the different activities defined in the qualification and / or unit of credit over time and range of work. The assessor must judge how long a time period is enough to be confident that the candidate can perform reliably to the standard. Unsupported evidence i.e. based on a single assessment/visit will not normally prove consistency.

**Performance evidence**
Performance evidence can be what the individual actually produces, or the way the individual achieves the standard. One is called product evidence and the other process evidence.
Product evidence is tangible – you can look at it and feel it. Products can be inspected and the candidate can be asked questions about them.

In order to make a fair and objective assessment, the assessor must be able to answer the question: Is there sufficient evidence that the candidate can consistently meet the requirements of the qualification and / or unit of credit?
Process evidence describes the way the candidate has achieved an outcome – how they went about it. This may be, for example, the way the quality of products is checked or the way customer complaints are handled. This usually means observing the candidate in action.

Performance evidence may cover a number of outcomes. It makes sense to plan evidence collection so that what the candidate does, in the normal course of their job, can be related to different outcomes and units. The activities that clearly link to the qualification and / or unit of credit requirements are the things to concentrate on when planning evidence collection and assessment and when monitoring the candidate's progress. Look for opportunities in the candidate's job when evidence can be collected against a number of units at the same time.

Performance evidence can be:
• Naturally occurring – evidence produced in the normal course of work. Evidence of this sort is usually of high quality and reliable. It is also cost effective to collect naturally occurring evidence
• Taken from previous achievements – the candidate may be able to bring forward evidence from previous work experience to show that they are still competent to the standard.
• Evidence of prior achievement can be used when it can be shown to support a judgment that the candidate can still achieve the standard. So, the assessor must be satisfied that the evidence of prior achievement is sufficiently reliable to justify saying that the candidate is currently competent.
• Simulated – from circumstances specially designed to enable the candidate's performance to be assessed. Simulation is generally not acceptable. The exceptions to this are:

• Dealing with emergencies
• Dealing with accidents
• Certain pre-approved real time simulators
• Limited other procedures that cannot be practically performed in the workplace, and for which sufficient evidence can be collected through other means.

**NB:It is not always possible or feasible to collect naturally occurring evidence. It is likely that some simulation may be needed, when it may take too long to wait for the evidence to arise e.g. it may be an aspect of performance which occurs infrequently. An example of this may be evidence of how to deal with emergencies i.e. it makes sense to look for evidence from sources other than naturally occurring ones, rather than for, say, waiting for the building to burn down. Centres must obtain GQA EQA approval prior to the use of simulation.**

**Knowledge evidence**
Being able to achieve a standard requires the ability to put knowledge to work. The qualification and / or unit of credit indicates the knowledge each person should use if they are to perform competently.
It should not be necessary to test all of the candidate's knowledge separately; however, any exception to this would be detailed in the relevant Assessment Strategy. Performance evidence could show that the candidate knows what he or she is doing. When this is not the case, or if the assessor is not convinced from the performance evidence, it may be necessary to check the individual's knowledge separately.

Oral or written assessments must clearly provide a suitable means of checking the breadth and depth of an individual's knowledge. Assessors will need to judge the best mix of knowledge evidence according to individual circumstances. Knowledge evidence is useful when deciding the quality of performance evidence, but must not be used in isolation to judge competence or as an alternative to performance evidence. Care must be taken that candidate evidence is auditable and verifiable.

**NB: These Qualification implementation guidelines are generic across the full range of GQA qualifications. Further guidance on acceptable evidence on each qualification will be found in the Introduction to the Qualification section of the candidate booklet**

# Collation of Evidence for Level 3 Qualifications

The definition of a Level 3 NVQ/SVQ is that competence in a broad range of varied work activities is performed in a wide variety of contexts, most of which are complex and non-routine. There is considerable responsibility and autonomy, and control or guidance of others is often required.

By the very nature of this, it is anticipated that Level 3 candidates will be able to provide evidence of their achievement drawn from successful work activities or projects, in other words, real examples of their work over time and range. All evidence should be dated, signed and authenticated/authorised by a recognised responsible person.

The following comments will help in the planning of evidence collection for Level 3 qualifications:

- Level 3 assessments are not normally carried out by the use of checklists
- Level 3 candidates are encouraged to provide evidence of their achievements drawn from their actual current work activities
- In many cases, evidence of achievement is not difficult to find
- Level 3 candidates should produce a CV that clearly indicates their relevant experience and achievement that contribute to the qualification
- A collation of evidence in the form of a Level 3 portfolio may be used to demonstrate competence against the standard
- The evidence must be cross referenced against the NVQ/SVQ standard (and where necessary justified)
- It may be appropriate for Level 3 candidates to undertake the related Level 2 qualification or some Level 2 units as a milestone/interim qualification
- Level 3 qualifications may include units of competence from Level 2 qualifications. If the candidate has already achieved any unit(s) and is regarded as currently competent then he/she will not be required to be reassessed on the same unit(s)
- Assessors will need to carry out performance and knowledge assessments for units/elements/pcs etc but the need for ongoing formal observations should not be as great if the candidate has produced a quality portfolio.

Some aspects of evidence may be subjected to independent assessment or enhanced external verification to satisfy the requirements of the standards setting body's assessment strategy

# Candidate Declaration

Candidate Name.....

Centre/Company Name.....

Assessor(s) Name(s).....

I acknowledge receipt of this copy of GQA qualification booklet. The unit structure provides information on which units must be achieved to be awarded the qualification. The individual units detail in the necessary requirements etc that I must achieve.
I understand that I will have an important role in preparing for and planning assessments and with guidance from the Assessor I will Collect and record relevant evidence.

I have been informed of the appeals system, should I want to appeal against any part of the assessment process.

I understand the assessments will be carried out with regard to the company's/centre's Equal Opportunities Policy.

Candidate signature.....

Date.....

# Production/Process Activity Guideline

To aid new or established workers, a centre may wish to describe a normal production/process activity relevant to the achievement of the national vocational qualification and identify which units/elements it will contribute to, e.g. the act of preparation for work, implementation and completion will contribute to a number of units of competence.

| Production/Process Activity Relevant to the Achievement of this Qualification | Contributory to: Units/Elements |
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| D/601/9393<br>PR999 | Contribute to Improving the Effectiveness of the Print Organisation | Level 3 | 5 Credits |
|---|---|---|---|

The aim of this unit is to provide the learner with the knowledge and skills to be able to contribute to the improvement of the Organisation through the use of resources, communications and working relationships within the print working environment.

| Learning outcome. The learner will: | Assessment criteria. The learner can: | Evidence.ref.no | | |
|---|---|---|---|---|
| 1. Know how to obtain and understand the work schedule. | 1.1 Explain the Organisational procedure for obtaining the work schedule. | | | |
| | 1.2 Explain what to do if the work schedule is:<br>• Unclear<br>• Not achievable | | | |
| 2. Know how to ensure that the correct quantities of products and materials and human resources are used. | 2.1 Explain how to ensure that the required quantities of products and materials and human resources are selected. | | | |
| 3. Know how to minimise wastage of materials. | 3.1 List three types of material that can potentially be wasted. | | | |
| | 3.2 Describe what actions can be taken to minimise wastage of the materials listed. | | | |
| | 3.3 Explain how surplus materials may be reused. | | | |
| 4. Know why it is important to contribute to improving the effectiveness of the Organisation. | 4.1 Explain 3 reasons for contributing to improving the effectiveness of the Organisation. | | | |
| 5. Know what information to share with colleagues on your job role and why this is important. | 5.1 Give 3 examples of information linked to your job role that needs to be shared with colleagues. | | | |
| | 5.2 Explain why sharing information with colleagues is important. | | | |
| 6. Be able to share information with colleagues. | 6.1 Share information with colleagues using different methods, for example:<br>• Face to face conversations<br>• Company systems<br>• Written notes<br>• Drawings / sketches<br>• Telephone (voice or text)<br>• Email<br>• Internet | | | |
| 7. Know how to identify and pass on improvements to work activities. | 7.1 Explain 2 ways to identify improvements that can be made in work activities. | | | |
| | 7.2 Explain how to pass on suggestions for improvements identified in line with Organisational policies. | | | |
| | 7.3 Explain who to make the suggestions to and why these people need to be made aware. | | | |

***Assessor comments/feedback***

| D/601/9393<br>PR999 | Contribute to Improving the Effectiveness of the Print Organisation (continued) | Level 3 | 5 Credits |
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|---|---|---|---|---|
| 8. Know how and why to identify opportunities and needs for self development and how to manage this information. | 8.1 Explain 2 ways that a need to update skills and/or knowledge of the print industry can be identified. | | | |
| | 8.2 Give 2 examples of how to check opportunities for self development related to the print industry. | | | |
| | 8.3 Explain the benefits of keeping skills and knowledge up to date, give 1 example each of how it benefits:<br>• The individual<br>• The organisation | | | |
| 9. Know why it is important to have good relationships with customers. | 9.1 Explain 3 benefits of having good relationships with customers. | | | |

***Assessor comments/feedback***

| T/502/8526 | Maintain Digital Systems in Working Order | Level 3 | 4 Credits |
|---|---|---|---|
| PR126 | | | |

The aim of this unit is to provide the learner with the knowledge and skills to start up and shut down digital systems and to carry out effective and safe working systems. It also includes problem solving and fault identification.

| Learning outcome. The learner will: | Assessment criteria. The learner can: | Evidence.ref.no | | |
|---|---|---|---|---|
| 1. Be able to start up and close down imaging systems. | 1.1 Start up the digital system hardware in accordance with Company procedures. | | | |
| | 1.2 Set up the digital system hardware to meet the job requirements. | | | |
| | 1.3 Open the required software application program(s). | | | |
| | 1.4 Follow workplace security procedures for the following:<br>• File security<br>• System security<br>• Virus protection | | | |
| | 1.5 Save data files at Company recommended/appropriate intervals. | | | |
| | 1.6 Archive completed data files in the file storage system in accordance with Company procedures. | | | |
| | 1.7 Exit the application and system software after use. | | | |
| | 1.8 Close down the hardware correctly after use in accordance with Standard Operating Procedures. | | | |
| 2. Be able to contribute to the effective operation of digital systems. | 2.1 Carry out system housekeeping activities, for example:<br>• Software and system checks<br>• Hardware checks<br>• Organisation of digital filing systems<br>• Back-up of stored files<br>• Deletion of unwanted files<br>• Hard-drive maintenance | | | |
| 3. Know how to maintain digital systems in working order. | 3.1 Describe how to ensure the safe handling of customer material as required by the Company. | | | |
| | 3.2 State the requirements for security and storage within the Company for:<br>• Computer system security and virus protection<br>• Secure means of archiving digital and conventional artwork<br>• Company policy and procedures regarding internet access<br>• Company policy on confidential information | | | |
| | 3.3 Describe the operation of equipment for the following:<br>• The assembly and set-up of digital systems<br>• The operation of digital systems | | | |

***Assessor comments/feedback***

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|---|---|---|---|---|
| | 3.4 Describe how digital imaging is affected by different file formats for digital images – the differences between them and the reasons for using them. | | | |
| | 3.5 State how to deal with digital files in relation to file management. | | | |
| | 3.6 Explain their responsibility towards environmental considerations for the following:<br>• The legal requirements for the classification, storage, carriage and disposal of waste<br>• Environmental management<br>• Control of Pollution, including disposal of computer equipment and consumables | | | |
| | 3.7 Give two examples of faults that can occur in maintaining digital systems, what causes them and how to correct them. | | | |
| | 3.8 Explain the Company procedures on reporting faults to include:<br>• Faults they have responsibility to correct<br>• Faults which fall outside their area of responsibility/ capability and the importance of following procedures | | | |

***Assessor comments/feedback***

| J/502/8501 | Plan work to meet production requirements | Level 3 | 4 Credits |
|---|---|---|---|
| PR120 | | | |

The aim of this unit is to provide the learner with the knowledge and skills to be able to plan and set out the work required, the sequence of work and how to accurately determine the time needed to complete the workload.

| Learning outcome. The learner will: | Assessment criteria. The learner can: | Evidence.ref.no | | |
|---|---|---|---|---|
| 1. Be able to interpret production requirements. | 1.1 Obtain and check details of jobs to be output. | | | |
| | 1.2 Identify the finished product required by the customer. | | | |
| | 1.3 Identify what their department or area of work is required to produce. | | | |
| | 1.4 Identify the order of tasks required to meet the output. | | | |
| 2. Plan production tasks to meet customer requirements. | 2.1 Confirm that the resources needed to complete the tasks are identified for example:<br>• equipment<br>• materials<br>• labour. | | | |
| | 2.2 Realistically estimate the time needed to complete each task. | | | |
| | 2.3 Plan work to avoid unnecessary repetition and re-working. | | | |
| 3. Know how to plan work to meet production requirements. | 3.1 State the Company procedures for communicating with:<br>• Colleagues<br>• Customers | | | |
| | 3.2 Describe the Company requirements for handling, security and storage of customer material:<br>• Computer system security and virus protection<br>• Print with time-sensitive or restricted release dates<br>• High value products or print with a high risk of theft<br>• Restriction to staffing access | | | |
| | 3.3 Describe the workplace policy and practice in relation to the following:<br>• Workplace standards and procedures<br>• The range of work carried out in the workplace<br>• The working practices existing in the workplace<br>• The key job roles within the printing and graphic communications industry and their main purposes<br>• Data protection and copyright | | | |
| | 3.4 Describe the influencing factors when:<br>• Selecting one process over another<br>• The choice of processes for any particular product | | | |
| | 3.5 Explain the responsibilities in regards of time and resources:<br>• The different types of resource available, including labour, materials and machinery<br>• The relationship between resource usage and profitability<br>• How to maximise productivity<br>• The relationship between productivity and competitiveness | | | |
| | 3.6 Explain the administrative procedures, including:<br>• Planning<br>• Scheduling<br>• Recording and reporting | | | |

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|---|---|---|---|---|
| | 3.7 Explain the main features of quality assurance and quality control systems, including:<br>• Techniques for controlling quality<br>• Equipment for controlling quality in digital artwork, pre-press and printing areas<br>• Light standards for viewing and assessing colour print | | | |
| | 3.8 Explain the function of a proof in the printing process. | | | |

***Assessor comments/feedback***

| L/601/9390<br>PR002 | Promote and Maintain Health and Safety in a Print Related Working Environment | Level 3 | 4 Credits |
|---|---|---|---|

The aim of this unit is to provide the learner with the knowledge and skills to work safely in the print related environment, to be able to carry out the correct actions should an accident or emergency occur and to promote and develop safe working practices. The learner will also need to know how to monitor the health and safety of others. Finally the learner is required to show awareness of associated problems that can occur and possible solutions.

| Learning outcome. The learner will: | Assessment criteria. The learner can: | Evidence.ref.no | | |
|---|---|---|---|---|
| 1. Know which acts, regulations and guidelines apply to the print related working environment. | 1.1 State which acts, regulations and guidelines apply to the print related working environment. | | | |
| | 1.2 Explain how these acts, regulations and guidelines apply to the print related working environment. | | | |
| 2. Know how to monitor and implement changes in health and safety acts, regulations and guidelines. | 2.1 Explain how to monitor changes in health and safety acts, regulations and guidelines, to include:<br>• Accessing HSE information<br>• Receiving training updates | | | |
| | 2.2 Explain how to introduce and implement changes. | | | |
| | 2.3 Explain how to monitor the implementation of changes in health and safety to the working environment. | | | |
| 3. Know how to carry out a formal assessment of hazards and risks in the print related working environment and the types of risk or hazards that exist. | 3.1 Describe the steps in carrying out a formal risk assessment. | | | |
| | 3.2 Explain how to record the findings and why recording is important. | | | |
| | 3.3 Explain who should be made aware of the findings and how. | | | |
| | 3.4 Explain why it is important to inform the relevant people of the findings. | | | |
| | 3.5 Give 3 examples of risks or hazards that can occur in your working environment. | | | |
| 4. Be able to identify hazards and assess risks in the print related working environment. | 4.1 Carry out a risk assessment of the print related working environment. | | | |
| | 4.2 Report the findings in accordance with Company procedures and legislation. | | | |
| 5. Know how to promote safe working practices. | 5.1 Give 3 examples of information that promote safe working practices related to the print related working environment. | | | |
| | 5.2 Explain how each of the 3 examples given promote safe working practices. | | | |
| 6. Be able to promote safe working practices. | 6.1 Disseminate information on safe working practices. | | | |
| 7. Be able to adopt a safe method of work. | 7.1 Plan and organise a safe method of work. | | | |
| | 7.2 Select and use personal protective equipment in accordance with Company guidelines and legislation. | | | |
| | 7.3 Select and use print related materials in accordance with Company guidelines and legislation. | | | |
| 8. Know how to ensure there is no unauthorised or unsafe access to the working areas. | 8.1 Explain how to establish if a person is authorised to enter the work area. | | | |
| | 8.2 Explain how to ensure that authorised people entering the work area are kept safe. | | | |
| 9. Know how to monitor colleagues to ensure they comply with health and safety requirements. | 9.1 Explain how to monitor colleagues to ensure they comply with health and safety requirements. | | | |

| L/601/9390<br>PR002 | Promote and Maintain Health and Safety in a Print Related Working Environment (continued) | Level 3 | 4 Credits |
|---|---|---|---|

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|---|---|---|---|---|
| 10. Know what to do in the event of accidents or emergencies. | 10.1 Describe the Company procedure to follow in the case of an accident. | | | |
| | 10.2 Describe the Company procedure to follow in the case of an emergency. | | | |
| | 10.3 Describe the procedure for evacuating workers and visitors. | | | |
| | 10.4 Describe the procedure for reporting and recording accidents and emergencies. | | | |
| 11. Understand the problems that can occur with promoting and maintaining health and safety within the print related working environment and the potential solutions. | 11.1 Give 3 examples of problems that can arise when promoting health and safety, one each of the following:<br>• Problem with communicating information to others<br>• Problem with introducing changes<br>• Problem with monitoring colleagues' compliance with health and safety requirements | | | |
| | 11.2 Give an explanation of how to overcome each of the problems given in answer to 11.1. | | | |

***Assessor comments/feedback***

| Y/502/8504 | Send and Receive Digital Files | Level 2 | 1 Credits |
|---|---|---|---|
| PR124 | | | |

The aim of this unit is to provide the learner with the knowledge and skills to be competent in the sending and receiving of digital files over a telecommunications network, including as email attachments, by ISDN or through a virtual private network or similar permanent connection.

| Learning outcome. The learner will: | Assessment criteria. The learner can: | Evidence.ref.no | | |
|---|---|---|---|---|
| 1. Be able to send digital files by electronic means. | 1.1 Confirm that the file(s) to be sent are in the format required by the customer and are of a suitable size for transmission. | | | |
| | 1.2 Make sure the transmission method is suitable for the files to be transmitted, taking into account for example:<br>• Customer's preferences<br>• Speed of transmission<br>• Security<br>• Cost | | | |
| | 1.3 Make sure that the information accompanying the digital file(s) is:<br>• Detailed enough for the customer<br>• Clear and accurate | | | |
| | 1.4 Send the files to the specified people. | | | |
| | 1.5 Complete all records on the transmission as required by Company procedures. | | | |
| 2. Be able to receive digital files by electronic means. | 2.1 Confirm that the digital communications systems are operating and are ready to receive incoming files. | | | |
| | 2.2 Check for incoming files in accordance with Company guidelines. | | | |
| | 2.3 Confirm that the required files have been received. | | | |
| | 2.4 Save received files in accordance with Company guidelines. | | | |
| | 2.5 Complete all records on the files received in accordance with Company guidelines. | | | |

***Assessor comments/feedback***

| Y/502/8504<br>PR124 | Send and Receive Digital Files (continued) | Level 2 | 1 Credits |
|---|---|---|---|

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|---|---|---|---|---|
| 3. Know how to send and receive digital files. | 3.1 Explain how to check that virus software is up-to-date and functioning correctly on the host computer, why this is important and what to do if there is a problem. | | | |
| | 3.2 Explain how to seek confirmation that digital files sent have been received as required, and when this has to be done to comply with Company procedures. | | | |
| | 3.3 Explain the Company procedure when a digital file has been:<br>• Sent to the wrong address<br>• Sent to the correct address but in the wrong format | | | |
| | 3.4 Describe one problem that could occur when sending digital files and how to overcome the problem. | | | |
| | 3.5 Explain the Company procedure when a file has been received in the following situations:<br>• From a known source but unable to open<br>• From an unknown source | | | |
| | 3.6 State how to deal with digital files in relation to the following:<br>• File conversion techniques<br>• File compression and decompression techniques<br>• File management | | | |

***Assessor comments/feedback***

| L/601/9406 | Understanding the Print Industry | Level 3 | 4 Credits |
|---|---|---|---|
| PR998 | | | |

The aim of this unit is to provide the learner with the knowledge and understanding of the print industry, the main processes, products and equipment and also understanding of the importance of confidentiality within the industry.

| Learning outcome. The learner will: | Assessment criteria. The learner can: | Evidence.ref.no | | |
|---|---|---|---|---|
| 1. Know the printing processes used within the print industry. | 1.1 Name 5 main print processes used within the print industry. | | | |
| | 1.2 Explain the basic principles of each process. | | | |
| | 1.3 Name one product that can be produced by each process. | | | |
| | 1.4 Name 3 stages of production workflow in print. | | | |
| 2. Understand the factors that influence the choice of printing process. | 2.1 Explain the advantages of each process. | | | |
| | 2.2 Explain the disadvantages of each process. | | | |
| 3. Know the types of equipment used within the print industry | 3.1 List 3 pieces of equipment/machinery used within the print production process. | | | |
| | 3.2 Explain the purpose of each piece of equipment/machinery given in answer to 3.1. | | | |
| 4. Recognise and understand the need for confidentiality within the print industry | 4.1 List 2 types of information concerning a print job that may need to be kept confidential. | | | |
| | 4.2 Explain the reasons the information should be kept confidential. | | | |

***Assessor comments/feedback***

| J/502/8529 PR247 | Manage Colour Digital Printing Machines | Level 3 | 6 Credits |
|---|---|---|---|

The aim of this unit is to provide the learner with the knowledge and skills to be able to configure, operate, control and carry out maintenance of 'production-scale' digital colour printing machines.

| Learning outcome. The learner will: | Assessment criteria. The learner can: | Evidence.ref.no | | |
|---|---|---|---|---|
| 1. Be able to prepare digital colour printing machines for print. | 1.1 Check that the digital colour printer is in serviceable condition and ready for production and that colour calibration and/or other periodic checks are up to date. | | | |
| | 1.2 Obtain and check the job specification. | | | |
| | 1.3 Ensure the required type, quantity and quality of materials are available. | | | |
| | 1.4 Determine the imposition requirements for the job. | | | |
| | 1.5 Determine the post-printing requirements for the job. | | | |
| | 1.6 Ensure the printer software is set to handle any colour profiles to meet the job specification. | | | |
| | 1.7 Set up the print parameters for the printer and job requirements, including any colour settings. | | | |
| | 1.8 Download or print the digital job file(s) to the digital printing machine so that:<br>• The print output meets the job specification<br>• The image is complete, colour accurate, free from contamination or other faults, and in register<br>• The correct fonts have been used<br>• The correct substrates have been used<br>• Any duplexing or finishing options are correct<br>• Imposition, scaling and orientation are correct<br>• The output satisfies the required quality standard | | | |
| 2. Be able to control the operation of digital colour printing machines. | 2.1 Run the digital printing machine at the required speed and in accordance with Company guidelines. | | | |
| | 2.2 Keep up the supply of materials and consumables throughout the run. | | | |
| | 2.3 Check that quality standards and job specifications are met, including the quality of the image, colour consistency and finishing accuracy. | | | |
| | 2.4 Record production and quality assurance details in accordance with Company guidelines. | | | |
| | 2.5 Follow the Company procedure for the removal of waste. | | | |
| | 2.6 Stack work safely, using the Company approved method. | | | |
| 3. Be able to maintain digital colour printing machines in serviceable condition. | 3.1 Ensure that the manufacturer's instructions for the cleaning and maintenance of the digital printer are followed and completed at the recommended intervals. | | | |
| | 3.2 Ensure that colour calibration and/or colour profiling is undertaken at the required intervals and that any colour profiles required by a Colour Management System are installed in line with manufacturer's and Company guidelines. | | | |
| | 3.3 Ensure that the digital workflow is configured and operated so that colour documents and images are reproduced to meet the job specification. | | | |

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| 4. Know how to manage digital colour printing machines. | 4.1 Explain how they ensure the safe handling of customer material as required by their company. | | | |
| | 4.2 State the requirements for security and storage within their company for:<br>• Computer system security and virus protection<br>• Print with time-sensitive or restricted release dates<br>• High value products or print with a high risk of theft<br>• Secure means of archiving digital and conventional artwork | | | |
| | 4.3 Describe the operation of equipment for the following:<br>• The set-up of digital communications equipment and software<br>• The operation of digital communications equipment and software | | | |
| | 4.4 State how to deal with digital files in relation to the following:<br>• File conversion techniques<br>• File compression and decompression techniques<br>• The transmission of digital files<br>• File management | | | |
| | 4.5 Describe the causes and treatment of common faults in digital imaging. | | | |
| | 4.6 Explain the administrative procedures, including:<br>• Planning<br>• Scheduling<br>• Recording and reporting<br>• Product labelling | | | |
| | 4.7 Describe 3 types of problems that may need to be solved to include:<br>• Sources of information<br>• Techniques for solving complex problems<br>• Techniques for assessing machine faults | | | |
| | 4.8 Explain the purpose of “preflight” with regards to digital files and how this is done. | | | |
| | 4.9 Explain the Organisation’s procedures where incorrect colour profiles are embedded. | | | |
| | 4.10 Describe the range of proofs in use and their role in the printing process and the limiting factors. | | | |
| | 4.11 Explain the types of adjustments that can be made to meet the job specification and the Company quality standards, give one example each for:<br>• Machine settings<br>• Print download settings | | | |
| | 4.12 Describe 3 faults that can occur, one each that could affect<br>• Quality of image<br>• Shortfall in output | | | |
| | 4.13 Explain the Organisation’s guidelines when the examples given in 4.12 are found. | | | |
| 5. Know how to monitor the quality of output from the digital printing machines. | 5.1 Explain the Company procedures for monitoring the quality of output. To include:<br>• Frequency<br>• Type of checks<br>• Viewing conditions<br>• Quality control aids/devices<br>• Acceptable tolerances/variation | | | |

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|---|---|---|---|---|
| | 5.2 Explain the purpose of achieving an approved copy. | | | |
| | 5.3 Identify the items on the product to be monitored during production output. | | | |
| | 5.4 Describe the quality control aids located on the printed copy to aid in the monitoring of production. | | | |
| | 5.5 Describe 3 methods used to monitor the standard of output achieved. | | | |
| | 5.6 Explain why it is important to clearly identify both good and bad copy on completion of the run. | | | |
| | 5.7 Describe the Company procedures for the removal of waste. | | | |
| | 5.8 Explain the reason for maintaining performance records, for example:<br>• Machine makeready<br>• Running speeds<br>• Production time<br>• Downtime in production | | | |
| 6. Be able to monitor the quality of product throughout the production process. | 6.1 Operate the machine at the required production speeds maintaining quality of output. | | | |
| | 6.2 Use recognised quality control methods to check output against the approved sample. | | | |
| | 6.3 Produce the required number of good copies to meet customer/Company requirements. | | | |
| | 6.4 Identify the product which has met the approved standards. | | | |
| | 6.5 Follow Company and legal procedures to identify and remove waste. | | | |
| | 6.6 Follow Company procedures for completing production and quality assurance records. | | | |

***Assessor comments/feedback***

| F/502/8531<br>PR248 | Control The Use Of Variable Data With Digital Printing Machines | Level 3 | 4 Credits |
|---|---|---|---|

The aim of this unit is to provide the learner with the knowledge and skills to be able to be able to prepare and produce variable data for digital print and control the appropriate machinery. It also includes dealing with faults and problems.

| Learning outcome. The learner will: | Assessment criteria. The learner can: | Evidence.ref.no | | |
|---|---|---|---|---|
| 1. Be able to prepare variable data for use in digital printing. | 1.1 Confirm that the Organisation has complied with the requirements of the legislation covering data protection if it is processing personal data. | | | |
| | 1.2 Confirm that the variable data file(s) supplied complies with the legislation covering data protection if it contains personal information. | | | |
| | 1.3 Check that the file(s) supplied is in a format that can be used by the Organisation. | | | |
| | 1.4 Ensure all necessary operations are carried out, for example:<br>• De-duping<br>• Data verification<br>• Incomplete record checks<br>• Postal sorting operations | | | |
| | 1.5 Identify the fields required for use in printing and relate them to the primary document. | | | |
| 2. Be able to produce personalised printed products using variable data. | 2.1 Set the print parameters so that the primary file and variable data file are merged as required, or so that the pre-merged output file will print in line with the job specification. | | | |
| | 2.2 Run the job at the required speed, ensuring that the variable data is printed in the required place on each page and the data sequence is maintained from page to page in accordance with job requirements. | | | |
| | 2.3 Ensure that the printed job is packed and labelled to identify all necessary information, for example:<br>• The sequence of data output | | | |
| | 2.4 Complete quality and/or other documentation as required by their organisation. | | | |
| | 2.5 Ensure that personal data is protected from misuse and is dealt with in accordance with the legislation covering data protection on completion of the job. | | | |
| 3. Know how to control the use of variable data with digital printing machines. | 3.1 Explain their understanding of the law as it affects printing in relation to:<br>• Data protection<br>• The printer's imprint | | | |
| | 3.2 State the requirements for security and storage within their company for:<br>• Computer system security and virus protection<br>• Print with time-sensitive or restricted release dates<br>• Secure means of archiving digital and conventional artwork | | | |
| | 3.3 Interpret the terminology used within typography, artwork and design to include:<br>• Fonts<br>• Proof<br>• Layout<br>• Specification<br>• Imposition | | | |

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|---|---|---|---|---|
| | 3.4 State how to deal with digital files in relation to the following:<br>• File management<br>• File conversion techniques<br>• File compression and decompression systems<br>• The transmission of digital files<br>• Creating relationship between primary and secondary data | | | |
| | 3.5 Describe 3 causes and treatment of common faults in digital imaging. | | | |
| | 3.6 Describe the administrative procedures to include:<br>• Planning<br>• Scheduling<br>• Recording and reporting<br>• Product labelling | | | |
| | 3.7 Explain how to ensure compliance with the Company quality standards. | | | |
| | 3.8 Describe the range of proofs in use, their role in the printing process and the limiting factors. | | | |
| | 3.9 Explain the meaning of mail merge and how to verify the file for output is in the required format. | | | |
| | 3.10 Explain how to determine that a file containing print that has to be placed into the document during printing is in the required format to meet the job specification. | | | |
| | 3.11 Explain how to download the primary file to the printer's memory or disc. | | | |
| | 3.12 Explain the possible causes of faults which can cause the following problems:<br>• Variable data being in the wrong place or wrong sequence<br>• Stoppages causing records to be printed twice<br>• Stoppages causing records to be missed | | | |

***Assessor comments/feedback***

| A/601/9417 | Set and Run Guillotines | Level 2 | 5 Credits |
|---|---|---|---|
| PR357 | | | |

The aim of this unit is to provide the learner with the knowledge and skills to be able to set and run guillotines, including knowledge of faults and problems that can occur with guillotines.

| Learning outcome. The learner will: | Assessment criteria. The learner can: | Evidence.ref.no | | |
|---|---|---|---|---|
| 1. Be able to set/programme and run guillotines. | 1.1 Obtain all details of work required. | | | |
| | 1.2 Identify and obtain the materials needed to meet the job specification. | | | |
| | 1.3 Check that the guillotine and work area is safe and ready for production. | | | |
| | 1.4 Follow manufacturer's instruction to start up the guillotine. | | | |
| | 1.5 Set up the guillotine taking into consideration:<br>• The use of an existing programme or the need to create a programmed cutting sequence<br>• The required cut size(s) is (are) produced with minimum handling<br>• Setting the back fence manually for each cut<br>• Production time | | | |
| | 1.6 Run the guillotine, making sure that, for example:<br>• Cuts are clean, square and accurately positioned<br>• Clamp pressure does not cause marking or set-off | | | |
| | 1.7 Monitor the output to ensure the job specification and Company quality standards are met. | | | |
| | 1.8 Record production information in accordance with Company requirements. | | | |
| | 1.9 Follow the Company procedures for the removal of waste. | | | |
| 2. Know how to run guillotines. | 2.1 Explain the information required to carry out the work and where to obtain it. | | | |
| | 2.2 Describe the principles of guillotining. | | | |
| | 2.3 Explain the risks associated with operating a guillotine, and how to avoid them. | | | |
| | 2.4 Explain how to start up and stop the guillotine in:<br>• Normal operation<br>• Emergency situations | | | |
| | 2.5 Explain the Company's method for stacking of finished work from the machine. | | | |

***Assessor comments/feedback***

| A/601/9417 | Set and Run Guillotines (continued) | Level 2 | 5 Credits |
|---|---|---|---|
| PR357 | | | |

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|---|---|---|---|---|
| 3. Be able to monitor quality of guillotine cutting. | 3.1 Check that the Company's quality standards are being met. | | | |
| | 3.2 Record the quality assurance details following Company procedures. | | | |
| 4. Know how to monitor quality of guillotine cutting. | 4.1 Describe the Company's quality standards for guillotine work. | | | |
| | 4.2 Describe 3 faults with a product that can occur in guillotine work, how to identify them, and how to rectify them. | | | |
| | 4.3 Explain how to check that the machine is safe to operate, once quality defects have been corrected. | | | |
| | 4.4 Explain the Company procedure for recording and reporting problems or faults. | | | |

***Assessor comments/feedback***

| H/601/9430 PR356 | Set and run booklet making machinery | Level 2 | 5 Credits |
|---|---|---|---|

The aim of this unit is to provide the learner with the knowledge and skills to be able to set up and operate booklet making machinery. It includes knowledge of problems that can occur with this type of equipment.

| Learning outcome. The learner will: | Assessment criteria. The learner can: | Evidence.ref.no | | |
|---|---|---|---|---|
| 1. Be able to set booklet making machinery. | 1.1 Obtain and check the job specification. | | | |
| | 1.2 Identify and obtain the materials required for the job. | | | |
| | 1.3 Ensure the working environment is safe for production. | | | |
| | 1.4 Set the collator to meet the job specification taking into consideration, for example:<br>• The size of the flat sheet<br>• The flat sheets are in the required sequence<br>• Each pile showing its different, correctly-positioned printed image<br>• Mis-feed and double detector(s) are set correctly<br>• Production times | | | |
| | 1.5 Set the stitch-fold unit so that:<br>• The staples are positioned as required by the job specification<br>• The fold is made in the required position<br>• The settings are appropriate for the booklet thickness and size | | | |
| | 1.6 Ensure the output meets the job specifications and Company quality standard prior to full production. | | | |
| 2. Be able to run booklet making machinery. | 2.1 Operate the machinery at the required production speed and in accordance with Company guidelines. | | | |
| | 2.2 Keep up the supply of materials throughout the run. | | | |
| | 2.3 Monitor the output to ensure the job specification and Company quality standards are met. | | | |
| | 2.4 Record production information in accordance with Company requirements. | | | |
| | 2.5 Follow the Company procedures for the removal of waste. | | | |
| | 2.6 Stack or pack finished work in accordance with Company approved methods. | | | |
| 3. Know how to set and run booklet making machinery | 3.1 Explain how to start up and shut down machinery for:<br>• Normal operation<br>• Emergency situations | | | |
| | 3.2 Explain 3 things to check to ensure effective operation of the machinery. | | | |
| | 3.3 Explain where to obtain information on the setting and operation of machinery. | | | |
| | 3.4 Explain the Company procedure for obtaining authorisation to begin production and why it is important to follow the procedure. | | | |
| | 3.5 Explain when and how to monitor the quality of the output, give 3 examples of things to monitor. | | | |
| | 3.6 Explain the Company procedure for the disposal of 2 types of waste. | | | |

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|---|---|---|---|---|
| | 3.7 Define the possible causes of faults which can result in, for example:<br>• Pages missing or duplicated<br>• Wire stitches or staples missing, broken or misformed<br>• Wire stitches/staples and fold not aligned<br>• Trimming faults such as out of square or wrong size<br>• Marking of inside or outside pages | | | |
| | 3.8 Describe 3 situations that can be overcome by adjustments, how to make adjustments to the settings to meet the job specifications and how to ensure the machine is safe for use after adjustments have been made. | | | |
| | 3.9 Describe 2 problems that can occur when operating machinery that may not be resolved by adjustment and the Company procedure for dealing with them. | | | |

***Assessor comments/feedback***

| Y/601/9439 | Set and Run multi-knife trimming machinery | Level 2 | 4 Credits |
|---|---|---|---|
| PR364 | | | |

The aim of this unit is to provide the learner with the knowledge and skills to be able to set up and run multi-knife trimming machinery. It includes the need to understand how to make adjustments and solve problems with this type of equipment.

| Learning outcome. The learner will: | Assessment criteria. The learner can: | Evidence.ref.no | | |
|---|---|---|---|---|
| 1. Be able to set multi-knife trimming machinery. | 1.1 Obtain and check the job specification. | | | |
| | 1.2 Identify and obtain the materials required for the job. | | | |
| | 1.3 Ensure the working environment is safe for production. | | | |
| | 1.4 Set up the multi-knife trimmer so that:<br>• Piles are fed squarely into the trimmer<br>• The clamp holds the pile firmly without marking<br>• Piles are trimmed squarely and delivered without damage or distortion<br>• The trimmed size is within variations permitted by their company<br>• Production times can be met | | | |
| | 1.5 Ensure the output meets the job specifications and Company quality standard prior to full production. | | | |
| 2. Be able to run multi-knife trimming machinery. | 2.1 Operate the machinery at the required production speed and in accordance with Company guidelines. | | | |
| | 2.2 Keep up the supply of materials throughout the run. | | | |
| | 2.3 Monitor the output to ensure the job specification and Company quality standards are met. | | | |
| | 2.4 Record production information in accordance with Company requirements. | | | |
| | 2.5 Follow the Company procedures for the removal of waste. | | | |
| | 2.6 Stack or pack finished work according to the Company's approved method. | | | |
| 3. Know how to set and run multi-knife trimming machinery. | 3.1 Explain how to start up and shut down the machinery for:<br>• Normal operation<br>• Emergency situations | | | |
| | 3.2 Explain 3 things to check to ensure effective operation of the machinery. | | | |
| | 3.3 Explain where to obtain information on the setting and operation of machinery. | | | |
| | 3.4 Explain the Company procedure for obtaining authorisation to begin production and why it is important to follow the procedure. | | | |
| | 3.5 Explain when and how to monitor the quality of the output, give 3 examples of things to monitor. | | | |
| | 3.6 Explain the Company procedure for the disposal of 2 types of waste. | | | |
| | 3.7 Define the possible causes of faults which can result in, for example:<br>• Unacceptable cut size variation<br>• Score marks on cut surfaces<br>• Glue marks on cut surfaces<br>• Ragged cut on bottom pages<br>• Book spines splitting at head or tail<br>• Books not square<br>• Creasing on spines | | | |

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|---|---|---|---|---|
| | 3.8 Describe 3 situations that can be overcome by adjustments, how to make adjustments to the settings to meet the job specifications and how to ensure the machine is safe for use after adjustments have been made. | | | |
| | 3.9 Describe 2 problems that can occur when operating machinery that may not be resolved by adjustment and the Company procedure for dealing with them. | | | |

***Assessor comments/feedback***

| Y/601/9392<br>PR312 | Materials Handling, Transportation and Storage within the Print Working Environment | Level 2 | 4 Credits |
|---|---|---|---|

The aim of this unit is to provide the learner with the knowledge and skills to be able to identify, transport and store materials within the Print Working Environment.

| Learning outcome. The learner will: | Assessment criteria. The learner can: | Evidence.ref.no | | |
|---|---|---|---|---|
| 1. Be able to identify and select the required type and quantity of materials. | 1.1 Identify materials by their labels/identification marks. | | | |
| | 1.2 Locate materials | | | |
| | 1.3 Check that materials match their markings. | | | |
| | 1.4 Select the required type and quantity of materials. | | | |
| 2. Be able to handle and transport materials in a safe manner. | 2.1 Handle the materials safely, and in accordance with Company guidelines, taking into account for example:<br>• Handling equipment<br>• Manual handling techniques<br>• Personal protective equipment | | | |
| | 2.2 Transport the materials safely using the appropriate transportation methods and equipment as specified in Company guidelines. To include:<br>• Manual handling<br>• Handling/lifting equipment | | | |
| 3. Know the impact of incorrect handling and transporting of materials. | 3.1 Describe how materials can be damaged during the handling and transportation of materials. | | | |
| | 3.2 Explain the types of personal injury that can occur through incorrect handling and transportation of materials. | | | |
| 4. Know how to position/store materials in accordance with organisational procedures. | 4.1 Explain 3 things to consider when positioning or storing materials. | | | |
| | 4.2 Give 3 examples of difficulties/hazards in positioning or storing materials. | | | |
| | 4.3 Give solutions to the 3 examples given. | | | |
| 5. Be able to position or store materials in accordance with organisational procedures. | 5.1 Position or store materials, taking into account:<br>• Avoiding damage to the materials or surrounding objects<br>• Security of materials<br>• Ease of access for further work | | | |

***Assessor comments/feedback***

| R/502/8534 PR130 | Preflight Digital Files | Level 3 | 4 Credits |
|---|---|---|---|

This unit covers the checking or 'preflighting' of digital artwork files supplied for production-scale printing. It includes knowledge of problems and possible solutions.

| Learning outcome. The learner will: | Assessment criteria. The learner can: | Evidence.ref.no | | |
|---|---|---|---|---|
| 1. Be able to preflight digital artwork files. | 1.1 Identify the digital artwork files that are required to be preflight checked. | | | |
| | 1.2 Select the preflight software to be used for checking the digital artwork and select a profile, rules or values, against which the artwork will be compared. | | | |
| | 1.3 Preflight the artwork file(s) using the electronic preflight software. | | | |
| | 1.4 Review the preflight report and save it, if required, in a suitable format, either electronic or paper based. | | | |
| 2. Be able to interpret and report the results of preflighting digital artwork files. | 2.1 Interpret the results of electronic preflighting and determine which issues reported are significant and which are not; giving reasons. | | | |
| | 2.2 Decide whether the artwork file should be allowed to proceed to the next stage of production. | | | |
| | 2.3 Decide the appropriate course of action to be taken e.g.:<br>• Forward to next stage of production<br>• Amend content<br>• Return file to originator<br>• Seek advice | | | |
| | 2.4 Maintain any quality assurance or other records required by the Organisation. | | | |
| 3. Know how to preflight digital files. | 3.1 Explain the purpose of preflight checks. | | | |
| | 3.2 Outline the procedures to follow when:<br>• The standard has been met<br>• The standard cannot be met without further changes | | | |
| | 3.3 Describe how to ensure the safe handling of customer material as required by the Company. | | | |
| | 3.4 Describe how to deal with digital files in relation to the following:<br>• File conversion techniques<br>• Missing fonts and images<br>• Knockout v Overprinting<br>• RGB v CMYK and other colour models | | | |
| | 3.5 Describe 3 faults encountered in preflighting, their causes and possible solutions. | | | |
| | 3.6 Explain the recording and reporting procedures, including:<br>• Who to inform<br>• Documentation required | | | |
| | 3.7 Explain the main features of quality assurance and quality control systems. | | | |

***Assessor comments/feedback***

| J/502/8532 | Manage Colour Reproduction In Digital Pre-Press | Level 3 | 4 Credits |
|---|---|---|---|
| PR122 | | | |

The aim of this unit is to provide the learner with the knowledge and skills to be able to ensure that colours are properly represented to the customer from the outset and that the colours when printed are predictable and meets the customer's expectations or are at least within acceptable commercial parameters.

| Learning outcome. The learner will: | Assessment criteria. The learner can: | Evidence.ref.no | | |
|---|---|---|---|---|
| 1. Be able to manage the calibration of digital pre-press equipment. | 1.1 Calibrate a display monitor in the workflow to produce accurate colour reproduction. | | | |
| | 1.2 Calibrate digital output devices, e.g. image setter/CTP setter, digital press, proofer(s). | | | |
| | 1.3 Store device profiles created during calibration. | | | |
| | 1.4 Maintain records of calibration checks as required by the Company. | | | |
| 2. Be able to configure pre-press software within the workflow. | 2.1 Identify which software applications in the workflow have colour management features. | | | |
| | 2.2 Identify what each colour management feature in each software application is set to do. | | | |
| | 2.3 Ensure that any software colour management features that may alter the colour values in digital images, either through the use of colour profiles, dot gain compensation/simulation, colour mode conversion or total ink content calculations, are configured to meet the job requirements. | | | |
| | 2.4 Establish what the typical dot gain is on printing machines and configure the application software or workflow appropriately to make allowance for dot gain. | | | |
| | 2.5 Save software settings once configuration is complete. | | | |
| | 2.6 Inform colleagues who use the workflow to be aware of how it is configured and where in the workflow colour mode changes and colour profiles are used. | | | |
| | 2.7 Use appropriate reference material to check that the hardware and software colour management configuration produces reliable colour reproduction on press and/or from any 'high resolution' proofing device(s). | | | |
| 3. Be able to use colour profiles correctly | 3.1 Identify source profiles and destination profiles stored within the workflow | | | |
| | 3.2 Select the required destination profiles for outputting to specific devices. | | | |
| | 3.3 Ensure that source profiles embedded in image files are appropriate to meet the job requirements. | | | |
| | 3.4 Where an embedded source profile is not correct or is missing, advise the appropriate person of the consequences. | | | |
| | 3.5 Assign a new profile. | | | |
| | 3.6 Assign the required profile to a file after conversion to a new colour mode. | | | |
| | 3.7 Ensure that all application software in the workflow are set to use source and destination profiles appropriate to job requirements. | | | |

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|---|---|---|---|---|
| 4. Know how to manage colour reproduction in digital prepress. | 4.1 State the requirements for security and storage within the Company for computer system security and virus protection. | | | |
| | 4.2 State Company procedures for communicating with:<br>• Colleagues<br>• Customers<br>• Suppliers | | | |
| | 4.3 Describe workplace policy and practice in relation to the following:<br>• Workplace objectives, priorities, standards and procedures<br>• The range of work carried out in the workplace | | | |
| | 4.4 Describe the operation of equipment for the following:<br>• The set-up of digital imaging equipment and software<br>• The operation of digital imaging equipment and software | | | |
| | 4.5 Describe how digital imaging is affected by:<br>• Colour theory, e.g.: additive and subtractive systems such as RGB and CMYK; colour gamuts<br>• Colour management: how to set up, maintain and use image profiles<br>• The range of methods, equipment, material and software appropriate to the imaging requirements<br>• The assembly and set-up of image editing and output systems<br>• The operation of image editing and output systems | | | |
| | 4.6 State how to deal with digital files in relation to the following:<br>• Dealing with embedded information<br>• File management<br>• File types and which file formats can carry embedded profiles | | | |
| | 4.7 Explain the Company administrative procedures, include 2 of the following:<br>• Scheduling<br>• Recording and reporting<br>• Product labelling<br>• Reporting faults and production downtime | | | |
| | 4.8 Explain the main features of quality assurance and quality control systems, including:<br>• Techniques for controlling quality, including inspection, testing, sampling, use of input and output controls<br>• Equipment for controlling quality in pre-press | | | |
| | 4.9 Describe the principal activities involved with machine cleaning, lubrication and maintenance in relation to equipment worked on. | | | |
| | 4.10 Explain the principal types of proof and their role in the printing process. | | | |

***Assessor comments/feedback***

| L/502/8533 PR128 | Produce Approved Colour Proofs From Digital Artwork | Level 3 | 4 Credits |
|---|---|---|---|

The aim of this unit is to provide the learner with the knowledge and skills to be able to produce; assess and correct hard-copy proofs produced from digital artwork that meet the criteria for a 'contract-quality' proof.

| Learning outcome. The learner will: | Assessment criteria. The learner can: | Evidence.ref.no | | |
|---|---|---|---|---|
| 1. Be able to produce digital proofs for print. | 1.1 Confirm what kind of proof is required. | | | |
| | 1.2 Locate and retrieve the files required for the proof. | | | |
| | 1.3 Ensure the files are in the required format for proof output. | | | |
| | 1.4 Include on the proof quality control aids. | | | |
| | 1.5 Make sure the proofing device is calibrated, in serviceable condition and has the required paper and sufficient consumables loaded. | | | |
| | 1.6 Make sure any colour profiles required to meet the job specification are selected for the proof, including:<br>• Any profiles required related to the proofing paper<br>• Any profiles relating to the printing machine or standard 'dot gain' curves | | | |
| | 1.7 Output the proof at the required size and resolution. | | | |
| | 1.8 Keep records of the work completed in accordance with Company procedures. | | | |
| 2. Be able to assess proofs against required specifications. | 2.1 Inspect the proof and identify any defects, for example:<br>• Physical defects in the making of the proof<br>• Colour irregularities<br>• Font or typographical problems<br>• Image resolution<br>• Trapping and knockout of colours<br>• Size and orientation of pages or images | | | |
| | 2.2 Carry out quality control checks on the proof to ensure required standards are met. | | | |
| 3. Be able to modify digital artwork to meet specifications. | 3.1 Identify amendments required to proofs. | | | |
| | 3.2 Amend the proof to meet customer requirements. | | | |
| | 3.3 Make sure the amendments are completed by the deadline set. | | | |
| | 3.4 Re-proof the job, as required, until a final proof is approved by the customer or as set out in their company's procedures. | | | |
| | 3.5 Reference and archive the approved digital file and any intermediate files, in accordance with their company's procedures. | | | |
| | 3.6 Identify the approved proof clearly and make sure that any other unapproved proofs are archived or dealt with in accordance with their company's procedures. | | | |
| 4. Know how to produce approved proofs from digital artwork. | 4.1 Explain how the law affects printing in relation to:<br>• Copyright and ownership of images<br>• Obscenity<br>• Forgery | | | |
| | 4.2 Give an example of an ethical issue relevant in printing. | | | |

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| | 4.3 State the requirements for security and storage within the Company for:<br>• Secure means of archiving digital and conventional proofs<br>• Retaining hard copy proofs | | | |
| | 4.4 State the Company procedures for communicating with customers. | | | |
| | 4.5 Describe the workplace policy and practice in relation to the following:<br>• Standards<br>• Procedures | | | |
| | 4.6 Describe the operation of equipment for the following:<br>• The set-up of proofing equipment and software<br>• The operation of proofing equipment and software | | | |
| | 4.7 Describe how digital imaging is affected by:<br>• Colour theory, e.g.: additive and subtractive systems such as RGB and CMYK; colour gamuts<br>• The relationship between image size, file size and resolution<br>• File formats for digital images - the differences between them and the reasons for using them<br>• Colour management: how to set up, maintain and use image profiles | | | |
| | 4.8 State how to deal with digital files in relation to the following:<br>• File conversion techniques<br>• File compression and decompression systems<br>• File management | | | |
| | 4.9 Describe the causes and treatment of common faults in proof output. | | | |
| | 4.10 Explain the administrative procedures, including:<br>• Recording and reporting<br>• Product labelling | | | |
| | 4.11 Explain the main features of quality assurance and quality control systems, including:<br>• The main features of quality assurance and quality control systems<br>• Techniques for controlling quality<br>• Equipment for controlling quality in printing<br>• Light standards for viewing and assessing colour printing | | | |
| | 4.12 Describe how the types and characteristics of paper, board and other commonly used substrates affect the visual appearance of a proof. | | | |
| | 4.13 Explain the principal types of proof and their role in the printing process. | | | |

***Assessor comments/feedback***

| A/502/8558 PR711 | Design And Produce Creative Digital Colour Artwork For Print | Level 3 | 7 Credits |
|---|---|---|---|

The aim of this unit is to provide the learner with the knowledge and skills to be able to create digital colour artwork for printing using software such as desk top publishing, word processing, electronic page assembly or graphics illustration. The unit requires working to instructions to produce artwork that is correctly set and configured for printing to correct standards. It requires the use of text and images to create artwork that is fit for purpose.

| Learning outcome. The learner will: | Assessment criteria. The learner can: | Evidence.ref.no | | |
|---|---|---|---|---|
| 1. Be able to agree a design specification for digital artwork for print. | 1.1 Establish from the customer and any other appropriate person(s) the proposed specification for the artwork. | | | |
| | 1.2 Establish the creative or stylistic needs for the artwork in order to satisfy its intended audience, use and/or application. | | | |
| | 1.3 Propose a design specification that meets the requirements identified, including those relating to print production and printed product use. | | | |
| | 1.4 Amend proposals in response to any comments from the customer ensuring it meets customer requirements. | | | |
| | 1.5 Agree realistic timescales with the customer for the production of the artwork. | | | |
| | 1.6 Maintain records of the agreed design and product specifications in accordance with Company guidelines. | | | |
| 2. Be able to produce creative digital colour artwork. | 2.1 Identify the sequence of tasks that will be required to produce the artwork. | | | |
| | 2.2 Identify and/or locate digital files that will be used in production of the artwork, including any text, database, spreadsheet or image files. | | | |
| | 2.3 Identify other source material that will be required, such as photography, scanning or copy-writing. | | | |
| | 2.4 Assist in coordinating tasks which require input from, as required, colleagues or external sources in order to meet the agreed timescale for production. | | | |
| | 2.5 Confirm that digital files for use in the artwork are in a suitable format and convert or use appropriate import filters to bring the files into the artwork layout software, retaining original formatting. | | | |
| | 2.6 Identify the software applications suitable to carry out the tasks. | | | |
| | 2.7 Produce creative colour artwork that meets the agreed design specification. | | | |
| | 2.8 Format typographical elements within the job. | | | |
| | 2.9 Make sure that charts or tables are formatted in accordance with job requirements. | | | |
| | 2.10 Make sure that line-art or bitmap images are of sufficient quality for the document use having the correct resolution and colour space. | | | |
| | 2.11 Make sure that all the colours used in the document are consistent with the intended printing method. | | | |
| | 2.12 Save the digital files securely using an archiving/indexing system. | | | |
| | 2.13 Submit an approved colour proof to the customer. | | | |
| 3. Be able to amend digital colour artwork as required to meet customer and product specification. | 3.1 Assess the extent of corrections, amendments and stylistic changes made by the customer to ensure they can be achieved. | | | |

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| | 3.2 Interpret typographic corrections indicated by reader's and copy preparation marks. | | | |
| | 3.3 Seek clarification or advice from the customer where requirements are unclear or unable to be effected. | | | |
| | 3.4 Label and archive digital files in accordance with Company procedures after amendments have been made. | | | |
| | 3.5 Submit the finished digital artwork for printing in the format required by the pre-press/printer. | | | |
| 4. Know how to design and produce creative digital colour artwork for print. | 4.1 Explain how to ensure the safe handling of customer material as required by their company. | | | |
| | 4.2 State the requirements for security and storage within their company for:<br>• Computer system security and virus protection<br>• Print with time-sensitive or restricted release dates<br>• High value products or print with a high risk of theft<br>• Secure means of archiving digital and conventional artwork | | | |
| | 4.3 Identify the reasons for selecting one printing process over another and the effects on artwork production. | | | |
| | 4.4 Describe the effects on a company/department of not managing time and resources carefully during production. | | | |
| | 4.5 Identify a range of hardware and software used to produce artwork for print and the limiting factors. | | | |
| | 4.6 Interpret the terminology used within typography, artwork and design to include:<br>• Fonts<br>• Proof<br>• Layout<br>• Specification<br>• Imposition | | | |
| | 4.7 Explain how digital artwork and design can be affected by: • Sources of original material, e.g. photographers and graphic artists<br>• Colour theory<br>• The relationship between image size, file size and resolution<br>• File formats for digital images<br>• Page layout<br>• Limitations of the output device for print | | | |
| | 4.8 Identify the main choices of colour mode for use in digital Printing. | | | |
| | 4.9 State 2 steps that can be taken to reduce the risk of unexpected differences between screen colour and printed colour. | | | |
| | 4.10 Explain the term "registration". | | | |
| | 4.11 Explain the meaning of the following terms:<br>• Trapping<br>• Knockout<br>• Overprint | | | |
| | 4.12 State how to deal with digital files in relation to the following:<br>• Dealing with embedded information<br>• File management<br>• File conversion techniques<br>• The transmission of digital files | | | |

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|---|---|---|---|---|
| | 4.13 Describe the administrative procedures to include:<br>• Planning<br>• Scheduling<br>• Recording and reporting<br>• Product labeling | | | |
| | 4.14 Identify the key items which should be considered when monitoring quality during artwork production. | | | |
| | 4.15 Describe the range of proofs in use and their role in the printing process and the limiting factors and list the sequence of proof verification. | | | |
| | 4.16 Explain the type of information to provide to a customer in respect of limitations of a proof supplied and why this is important. | | | |
| | 4.17 Describe the advantages of using low resolution PDF files as proofs. | | | |
| | 4.18 Explain why it is important to get auditable approval from a customer before handing the job over to further stages of production. | | | |
| | 4.19 Explain why it is important customers are made aware of any additional costs likely to be incurred as a result of changes outside the original contract and explain when and how this should be done in line with Organisational procedures. | | | |
| | 4.20 Explain the Organisational procedures for making corrections or amendments required by a customer. | | | |

***Assessor comments/feedback***

| L/502/8502 PR129 | Output Digital Image Carriers for Print | Level 2 | 8 Credits |
|---|---|---|---|

The aim of this unit is to provide the learner with the knowledge and skills to produce image carriers for printing, utilising digital system technology, e.g. Computer to Plate, (flexo, gravure, litho) film output technology.

| Learning outcome. The learner will: | Assessment criteria. The learner can: | Evidence.ref.no | | |
|---|---|---|---|---|
| 1. Be able to impose images electronically. | 1.1 Obtain all the details needed for the job. | | | |
| | 1.2 Select an appropriate imposition scheme by taking into account, for example:<br>• The quantity required<br>• The working size of the job<br>• Paper size<br>• Printing machine sizes and the number available<br>• The type of printing machine to be used<br>• Colour fall (where appropriate)<br>• The method of finishing | | | |
| | 1.3 Retrieve or create an imposition template that meets the requirements of the imposition scheme. | | | |
| | 1.4 Identify and correct data, system and software problems which will affect the production of impositions. | | | |
| 2. Be able to prepare images for processing. | 2.1 Check that the job files are compatible with the imaging software to be used. | | | |
| | 2.2 Set the required output parameters to meet the job specification, taking into account, for example:<br>• Resolution<br>• Screen ruling and dot type<br>• Screen angle<br>• Orientation<br>• Position on the image carrier<br>• Register or other marks<br>• Right/wrong reading<br>• Emulsion up/down<br>• Separations settings | | | |
| | 2.3 Make sure the required image carrier is loaded into the output device. | | | |
| | 2.4 Check that the output device is calibrated and prepared for operation. | | | |
| 3. Be able to produce and process image carrier. | 3.1 Send the data to the output device. | | | |
| | 3.2 After imaging, process the image carrier as required. | | | |
| | 3.3 Check that output meets the job requirements for quality and specification. | | | |
| | 3.4 Store finished output in line with Company guidelines. | | | |
| | 3.5 Keep records for quality assurance and administrative purposes as required by their company | | | |
| | 3.6 Archive digital files in accordance with Company procedures. | | | |
| 4. Know how to produce computer-generated image carriers. | 4.1 Explain what information is required to start the work. | | | |
| | 4.2 Describe 3 factors to consider when selecting an appropriate imposition scheme. | | | |
| | 4.3 Describe three problems that can occur during the process of producing computer generated image carriers and suggest possible solutions. | | | |

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|---|---|---|---|---|
| | 4.4 Explain the Company procedures for reporting faults and delays to production. | | | |
| | 4.5 Describe the operation of equipment for the following:<br>• The set-up of digital equipment and software<br>• The operation of digital imaging equipment and software | | | |
| | 4.6 State the characteristics of sensitive material in printing. | | | |
| | 4.7 Explain how to deal with the digital files in relation to the following:<br>• File conversion techniques<br>• File compression and decompression systems<br>• File management | | | |

***Assessor comments/feedback***

| A/502/8513 | Use of scanning techniques to create digital images | Level 2 | 6 Credits |
|---|---|---|---|
| PR125 | | | |

The aim of this unit is to provide the learner with the knowledge and skills to be able to convert analogue material into digital form. It covers all aspects of scanning, including detailed intervention where automatic settings do not give the required result.

| Learning outcome. The learner will: | Assessment criteria. The learner can: | Evidence.ref.no | | |
|---|---|---|---|---|
| 1. Be able to decide on the appropriate scanning approach. | 1.1 Make an accurate assessment of the suitability of the material for scanning. | | | |
| | 1.2 Make an accurate assessment of the scanner operations necessary to produce the required output. | | | |
| | 1.3 Check that the scanners available will produce the quality of output to meet customer requirement. | | | |
| | 1.4 Select the most suitable scanning equipment for the material to be scanned and the output required. | | | |
| 2. Be able to prepare equipment and material for scanning. | 2.1 Carry out any low-resolution scanning necessary to establish the correct software values. | | | |
| | 2.2 Apply the required software values for:<br>• The material to be scanned<br>• The output required | | | |
| | 2.3 Ensure that the scanner to be used, and the material to be scanned, are clean. | | | |
| | 2.4 Handle the material to be scanned in accordance with Health and Safety guidelines. | | | |
| | 2.5 Load the material to be scanned with regard to alignment and positioning. | | | |
| 3. Be able to produce and save scanned images in line with the job specification and Company standards. | 3.1 Produce scanned images which are correct in terms of the following:<br>• Physical size<br>• File size<br>• Content<br>• Orientation<br>• Colour<br>• Sharpness<br>• Brightness (exposure)<br>• Contrast<br>• Colour space — RGB, CMYK and greyscale<br>• Output resolution | | | |
| | 3.2 Produce scanned images to the required image profiles. | | | |
| | 3.3 Produce scanned images which are free of the following unwanted effects:<br>• Physical defects — fingerprints, dust damage and scratches<br>• Newton's rings<br>• Moiré patterning from screened originals<br>• Pixelisation<br>• Posterisation<br>• Halo effects | | | |
| | 3.4 Assess the scanned images accurately against customer requirements and workplace standards. | | | |
| | 3.5 Detect any problems with the scanned images and identify the probable causes of the problems. | | | |
| | 3.6 Maintain the confidentiality of customer material. | | | |
| | 3.7 Save the scanned image data files in the required format. | | | |

| A/502/8513<br>PR125 | Use of scanning techniques to create digital images (continued) | Level 2 | 6 Credits |
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| 4. Know how to plan and capture digital images. | 4.1 Explain the law affecting printing in relation to:<br>• Defamation<br>• Copyright and ownership of images<br>• Obscenity<br>• Incitement<br>• Forgery<br>• Data Protection | | | |
| | 4.2 Describe how to ensure the safe handling of customer material as required by their company. | | | |
| | 4.3 State the Company requirements for the safe storage and archiving of digital artwork. | | | |
| | 4.4 Describe the operation of equipment for the following:<br>• The set-up of scanning equipment<br>• The operation of scanning equipment | | | |
| | 4.5 Describe how digital imaging is affected by:<br>• Colour theory, e.g.: additive and subtractive systems such as RGB and CMYK; colour gamuts<br>• The relationship between image size, file size and resolution<br>• File formats for digital images – the differences between them and the reasons for using them<br>• The range of methods, equipment, material and software appropriate to the imaging requirements<br>• Methods of controlling contrast, density and colour characteristics during scanning<br>• The assessment of material for scanning – potential problems and solutions<br>• Colour management: how to set up, maintain and use image profiles | | | |
| | 4.6 Describe how to identify and correct three faults which affect the quality of the scanned image. | | | |
| | 4.7 Describe the principal activities involved with machine cleaning and calibration:<br>• The choice and use of suitable cleaning agents and lubricants<br>• The methods used to set up and calibrate a scanner for use | | | |

***Assessor comments/feedback***

| M/502/8511 | Plan and Produce Edited Images | Level 3 | 4 Credits |
|---|---|---|---|
| PR127 | | | |

The aim of this unit is to provide the learner with the knowledge and skills to edit digital images. It covers the process of retrieving, editing, converting and archiving for production output.

| Learning outcome. The learner will: | Assessment criteria. The learner can: | Evidence.ref.no | | |
|---|---|---|---|---|
| 1. Be able to decide on the imaging approach. | 1.1 Ensure all elements of the job are available, e.g. photos (digital or original). | | | |
| | 1.2 Select the hardware and software most suitable for the editing they intend to carry out. | | | |
| | 1.3 Check the compatibility of the elements to be combined in the editing process and decide how to treat any elements that are not compatible. | | | |
| 2. Be able to produce edited images. | 2.1 Import the required image elements correctly into the editing software. | | | |
| | 2.2 Produce edited images to suit the requirements of the job. | | | |
| | 2.3 Produce edited images which are accurate in terms of the following:<br>• Physical size<br>• File size<br>• Content<br>• Colour<br>• Sharpness<br>• Brightness (exposure)<br>• Contrast<br>• Colour space — RGB, CMYK and greyscale<br>• Output resolution | | | |
| | 2.4 Check the content and quality of the edited images against customer requirements and workplace standards. | | | |
| | 2.5 Take action to make customer amendments. | | | |
| | 2.6 Maintain the confidentiality of customer material. | | | |
| | 2.7 Save the edited image data files in the required/ appropriate format. | | | |
| 3. Know how to plan and produce edited images. | 3.1 Explain their understanding of the law as it affects printing in relation to:<br>• Copyright and ownership of images<br>• Obscenity<br>• Forgery | | | |
| | 3.2 Describe the ethical issues relevant in printing. | | | |
| | 3.3 Describe how to ensure the safe handling of customer material as required by their company. | | | |
| | 3.4 State the requirements for security and storage within their company for:<br>• High value products or print with a high risk of theft<br>• Secure means of archiving digital and conventional prints | | | |
| | 3.5 State Company procedures for communicating with customers. | | | |
| | 3.6 Describe workplace policy and practice in relation to the following:<br>• Standards<br>• Procedures | | | |
| | 3.7 Describe the operation of image editing equipment and software. | | | |

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|---|---|---|---|---|
| | 3.8 Describe the key factors which affect digital imaging, to include:<br>• Sources of original material, e.g. photographers and graphic artists<br>• Colour theory, e.g.: additive and subtractive systems such as RGB and CMYK; colour gamuts<br>• Compatibility in digital images<br>• The relationship between image size, file size and resolution<br>• File formats for digital images – the differences between them and the reasons for using them | | | |
| | 3.9 Describe how to deal with digital files in relation to the following:<br>• File conversion techniques<br>• File compression and decompression systems<br>• File management | | | |

***Assessor comments/feedback***

| D/502/8505 PR105 | Make photopolymer plates for flexographic printing | Level 2 | 4 Credits |
|---|---|---|---|

The aim of this unit is to provide the learner with the knowledge and skills to be able to carry out the production and output of photopolymer plates for flexographic printing. It includes identifying the work to be done, exposing plates, processing plates, checking the quality of output.

| Learning outcome. The learner will: | Assessment criteria. The learner can: | Evidence.ref.no | | |
|---|---|---|---|---|
| 1. Be able to prepare photopolymer plates for print. | 1.1 Obtain and check the job specification. | | | |
| | 1.2 Ensure the correct type, quantity and quality of materials are available. | | | |
| | 1.3 Check that:<br>• Negatives match with artwork<br>• Elements match imposition<br>• Non-image density matches the manufacturer's recommendations and their company's quality standard | | | |
| | 1.4 Prepare the exposure unit in accordance with the job requirements. | | | |
| | 1.5 Handle and load plate material in accordance with Company procedures. | | | |
| | 1.6 Position plate material so that all image elements fall accurately on the finished plate. | | | |
| | 1.7 Select exposure values which produce the required plate characteristics after processing. | | | |
| | 1.8 Expose the assembly in accordance with job requirements. | | | |
| | 1.9 Pass the plate for processing. | | | |
| 2. Be able to process photopolymer plates. | 2.1 Load the processor according to specified instructions, handling materials in accordance with Company Health and Safety guidelines. | | | |
| | 2.2 Set and operate processor in accordance with job requirements and safe operating procedures. | | | |
| | 2.3 Trim the finished plate to the required size. | | | |
| | 2.4 Check that the finished plate meets the Company's standard for:<br>• Thickness<br>• Relief height<br>• Spots and blemishes | | | |
| | 2.5 Keep waste to a minimum and dispose of it in accordance with Company procedures. | | | |
| | 2.6 Report when the plate is ready for production. | | | |
| 3. Know how to make photopolymer plates for flexographic printing. | 3.1 Describe what details are needed to produce the job. | | | |
| | 3.2 Describe the quality standards relating to plate production. | | | |
| | 3.3 Explain the key parts of a negative film which should be checked prior to output. | | | |
| | 3.4 Describe the risks which arise when handling plates and materials and operate exposure units and how to avoid them. | | | |
| | 3.5 Explain the plate making methods and the function of the equipment in use in the Company. | | | |
| | 3.6 Identify the suitable safe lighting conditions to be used during production. | | | |

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| | 3.7 Describe the make ready procedures for the plate making equipment in use. | | | |
| | 3.8 State the Company's waste disposal procedures. | | | |
| | 3.9 State the Company procedures for reporting machine faults and breakdowns. | | | |
| | 3.10 Give two examples of faults that can occur, what causes them and how to correct them. | | | |
| | 3.11 Describe how to recognise when to correct faults themselves and when to ask for help. | | | |

***Assessor comments/feedback***

| K/601/9400 | Make lithographic printing plates | Level 2 | 4 Credits |
|---|---|---|---|
| PR251 | | | |

The aim of this unit is to provide the learner with the knowledge and skills to be able to make lithographic printing plates and store them for reuse.

| Learning outcome. The learner will: | Assessment criteria. The learner can: | Evidence.ref.no | | |
|---|---|---|---|---|
| 1. Be able to produce lithographic printing plates. | 1.1 Identify the required plate material for plate making. | | | |
| | 1.2 Identify the required files and materials for exposing the plate to meet the job specification. | | | |
| | 1.3 Check that the imaging/exposure and any online processing equipment is ready for operation. | | | |
| | 1.4 Load the plate into the imaging/exposure equipment in accordance with manufacturer's instructions. | | | |
| | 1.5 Begin the imaging/exposure of the plate in accordance with Company guidelines. | | | |
| | 1.6 On completion of imaging/exposure, develop the plate to meet the job specification. | | | |
| | 1.7 Check the plate for correct exposure, completeness of the image and free from physical damage or blemishes. | | | |
| 2. Know how to maintain lithographic printing plates. | 2.1 Explain how and when to clean and protect plates for re-use. | | | |
| | 2.2 Explain the conditions and procedure for storage of plates. | | | |
| 3. Know how to produce lithographic printing plates. | 3.1 Explain the types of lithographic printing plates and their uses. | | | |
| | 3.2 Explain the process of producing a lithographic printing plate | | | |
| | 3.3 Explain 3 checks to make before beginning the production process. | | | |
| | 3.4 Describe three common faults in plate making and plate processing, their causes and how to correct them. | | | |
| | 3.5 Explain how and why, to report a fault that is not able to be corrected either due to lack of knowledge or lack of authority. | | | |

***Assessor comments/feedback***

| K/502/8507 PR106 | Make Gravure Cylinders | Level 2 | 4 Credits |
|---|---|---|---|

The aim of this unit is to provide the learner with the knowledge and skills to be able to carry out the preparation and production of gravure cylinders for print. The learner will also be required to know how to deal with faults and problems occurring during the process.

| Learning outcome. The learner will: | Assessment criteria. The learner can: | Evidence.ref.no | | |
|---|---|---|---|---|
| 1. Be able to produce gravure cylinders for print. | 1.1 Obtain and check the job specification. | | | |
| | 1.2 Ensure sufficient materials are available for the required job. | | | |
| | 1.3 Check that the cylinder is clean and suitable for the job requirements. | | | |
| | 1.4 Ensure all checks and adjustments necessary are made so that the work can be carried out efficiently and safely. | | | |
| | 1.5 Select and prepare the required masks. | | | |
| | 1.6 Keep waste materials to a minimum. | | | |
| 2. Know how to prepare the gravure cylinder. | 2.1 Explain what details are required to carry out the work required. | | | |
| | 2.2 Describe the types of cylinders in use in the Company, and the types of job for which they are used. | | | |
| | 2.3 Explain why it is important to check that the cylinder is clean and suitable for the job. | | | |
| | 2.4 Explain the range, use and limitations of processing materials and equipment. | | | |
| | 2.5 Describe the range, use and limitations of processing materials and equipment waste. | | | |
| | 2.6 Explain the types of mask in use in the Company. | | | |
| 3. Be able to transfer the image to the cylinder. | 3.1 Check that the equipment is ready for image transfer. | | | |
| | 3.2 Set and operate the equipment so that:<br>• The complete image is transferred to the cylinder<br>• The image is sharp and clean, at the required resolution<br>• The finished cylinder is free from faults and suitable for production | | | |
| | 3.3 Keep waste to a minimum and dispose of it in accordance with Company procedures. | | | |
| | 3.4 Report when the plate is ready for production. | | | |

***Assessor comments/feedback***

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|---|---|---|---|---|
| 4. Know how to transfer the image to the cylinder. | 4.1 Describe the cylinder making methods and equipment in use in the Company. | | | |
| | 4.2 Explain the most suitable environmental conditions for production. | | | |
| | 4.3 Describe the risks associated with operating the equipment. | | | |
| | 4.4 Explain how to set up and operate the equipment. | | | |
| | 4.5 Describe the Company's waste disposal procedures. | | | |
| | 4.6 Explain the common faults which can occur when making gravure cylinders, what causes them and how to correct them. | | | |
| | 4.7 Explain to whom they must report when there are faults, and when the plate is ready for production. | | | |

***Assessor comments/feedback***

| M/502/8508 PR219 | Prepare Stencils for Printing | Level 2 | 4 Credits |
|---|---|---|---|

The aim of this unit is to provide the learner with the knowledge and skills to be able to identify mesh and frame size, including preparing the mesh and checking the tension. Also the learner will be required to prepare the mesh material, apply and dry stencil material, position the photo-positive; also exposing, developing and drying the stencil.

| Learning outcome. The learner will: | Assessment criteria. The learner can: | Evidence.ref.no | | |
|---|---|---|---|---|
| 1. Be able to prepare the mesh. | 1.1 Obtain and check the job specification. | | | |
| | 1.2 Identify and select the mesh type and frame size. | | | |
| | 1.3 Check the tension of the mesh. | | | |
| | 1.4 Check that the condition of new and used mesh is suitable for use. | | | |
| | 1.5 Prepare the mesh so that it will accept the stencil. | | | |
| 2. Know how to prepare the mesh. | 2.1 Explain how to identify the image size. | | | |
| | 2.2 Explain how to identify the machine to be used. | | | |
| | 2.3 Explain how to select the frame. | | | |
| | 2.4 Explain how to identify the required mesh material. | | | |
| | 2.5 Describe why it is important that reclaimed mesh is free from stains and ghost images and how to confirm this. | | | |
| | 2.6 Describe how to treat mesh material. | | | |
| | 2.7 Explain how to check that stencil residue has been completely removed from reclaimed screens. | | | |
| | 2.8 Describe the health and safety requirements when using chemicals and what personal protective equipment to use. | | | |
| | 2.9 Describe the Company procedure for reporting unsuitable frames and meshes. | | | |
| 3. Be able to prepare stencils for production. | 3.1 Check that they have all the details required for the job. | | | |
| | 3.2 Obtain the photo-positive and check that it is fit for use. | | | |
| | 3.3 Apply the stencil material to the screen and dry it in accordance with manufacturer's and Company guidelines. | | | |
| | 3.4 Position the photo-positive accurately on the screen. | | | |
| | 3.5 Confirm that the exposure is correct to suit the stencil system. | | | |
| | 3.6 Develop the stencil ensuring the water temperature and pressure are set in accordance with manufacturer's and Company guidelines. | | | |
| | 3.7 Dry stencils checking that drying is even over the entire surface. | | | |
| | 3.8 Check the stencils are free from fault. | | | |
| 4. Know how to prepare stencils. | 4.1 Describe the methods to use in the production of the different types of stencils. | | | |
| | 4.2 Explain how to choose the type of stencil to use. | | | |
| | 4.3 Give reasons for choosing a particular stencil type. | | | |
| | 4.4 Describe the materials available for the production of stencils. | | | |
| | 4.5 Explain what safe light conditions are used in stencil processing. | | | |

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|---|---|---|---|---|
| | 4.6 Explain why it is important to position the photopositive accurately and how the machine affects positioning. | | | |
| | 4.7 Describe how to achieve the optimum exposure. | | | |
| | 4.8 Describe the effects of under and over exposure. | | | |
| | 4.9 Explain how the condition of the stencil affects the printed image. | | | |
| | 4.10 Describe two common faults associated with preparing the stencils for print. | | | |

***Assessor comments/feedback***

# *Notes*

# *Notes*


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