

Print Media Technician Programme Level 3

Skills for the Print and Packaging Industry

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The **Level 3 Print Media Technician Programme** is primarily aimed at those individuals who are familiar with the print industry and are capable of working without close supervision. High-quality, core training will be provided to ensure candidates have sufficient knowledge and understanding of the materials, processes, technologies, and context they are working in.

In achieving the BPIF Training Print Media Technician Programme, learners will achieve the following:

- GQA Level 3 Certificate in Understanding the Print Working Environment
- Highfields Training: Good Manufacturing Practice (GMP)

The typical duration of the full programme is 23 months.

GQA LEVEL 3 CERTIFICATE IN UNDERSTANDING THE PRINT WORKING ENVIRONMENT

Qualification Number: 600/3252/2

Fully accredited, this qualification is intended to ensure that candidates have well-developed knowledge of the organisation worked for and the print industry and is particularly suited to those who have either achieved the Level 2 Certificate in Understanding the Print Working Environment, or those who have a good foundation of knowledge and experience in the industry.

Establishing underpinning knowledge and understanding relevant to the print industry, this qualification is intended to be capable of delivery through a taught programme of off-the-job learning and practical application of skills in the workplace.

Along with three **core print industry modules** and a module on **employment rights and responsibilities**, an optional pathway within the qualification will ensure there is a qualification to cover the individual occupational roles in the print production and packaging working environment.

Occupational roles covered in this qualification include:

Pathway 1	Print Finishing
Pathway 2	Machine Printing
Pathway 3	Digital Printing
Pathway 4	Digital Artwork
Pathway 5	Costing and Estimating

Achieving the core modules and the correct choice of Optional Modules will mean the qualification has been completed and the awarding body will provide the qualification title.

The modules within each pathway are made up of knowledge needed to carry out the work safely and correctly and these are called learning outcomes. All learning outcomes must be met to achieve the module.

Assessment of knowledge in order to achieve Module and qualification accreditation, will include workbooks, and written and verbal question and answer. Candidates may be required to refer to their own working practices.

QUALIFICATION UNITS

Module Reference	Module Title	Level	Credit
Mandatory			
T/503/5024	Understanding Working Practices in the Print Working Environment	3	3
F/602/3940	Employment Rights and Responsibilities in the Process and Manufacturing Industries	2	3
A/503/5025	Understanding how to contribute to improving the effectiveness of the Print Company	3	4
K/503/5036	Understanding how to promote and monitor Health and Safety in the Print working environment.	3	4
Digital Artwork			
Y/503/5081	Understanding Digital Artwork	2	6
Digital Printing			
R/503/5080	Understanding Digital Printing	3	5
Machine Printing			
K/503/5084	Understanding how to manage Print Machines	3	5
Print Finishing			
D/503/5082	Understanding how to manage Print Finishing Machines	3	5
Pathway 5 - Costing and Estimating			
PR507	Understand and Analyse Estimates for Print or Print Services	3	5

Modules, Learning Outcomes and Assessment Criteria

K/503/4047: Understanding Working Practices in the Print working Environment.

This is a mandatory module.

The aim of this module is to ensure the candidate has knowledge and understanding of working practices within the print working environment, including knowledge of the departments/job roles, customers and output from the learner's Company, but also includes wider knowledge covering an overview of printing processes and machinery/equipment and how these are inter-related. There is a need to understand how to identify and understand the importance of teamwork and good working relationships with customers and colleagues. Finally, the unit also covers confidentiality issues.

Learning Outcome (the learner will:)	Assessment Criteria (the learner can:)
Know the orienting processes used within the industry	<ul style="list-style-type: none"> • Name 5 main print processes used within the print industry. • Explain the basic principles of each process. • Name one produce that can be produced by each process. • Name 3 stages of print production workflow in print
Understand the factors that influence the choice of printing process	<ul style="list-style-type: none"> • Explain the advantages of each process. • Explain the disadvantages of each process

<p>Know the departments/job roles within the Industry/Company and their own area of responsibility</p>	<ul style="list-style-type: none"> • List the departments/job roles within industry/company company. • Explain the responsibilities of each department. • Explain their own duties and limits of responsibility
<p>Know the products produced by the Industry/Company</p>	<ul style="list-style-type: none"> • List the main products produced by the Company. • Name the materials and processes used in the printed product.
<p>Know the types of equipment used within the Organisation for print related work</p>	<ul style="list-style-type: none"> • List 5 pieces of print equipment/machinery used within the Industry/Organisation for print related work. • Explain the purpose of each piece of equipment/machinery
<p>Know the importance of delivering customer requirements</p>	<ul style="list-style-type: none"> • Describe the Company's customer base. • Explain the difference between internal and external customers. • Explain 3 ways a company can benefit from delivering work on time to meet customer requirements. • Explain why it is important to have good working relationships with customers.
<p>Know why good working relationships with colleagues are important and how barriers to this can be overcome</p>	<ul style="list-style-type: none"> • Explain why good working relationships are important. • Give 3 examples of problems in developing and maintaining good working relationships with colleagues and suggest solutions

F/602/3940: Employment Rights and Responsibilities in the Processing and Manufacturing Industries

This is a mandatory Module.

The aim of this module is to ensure that individuals have a general insight into the processing/manufacturing industry.

Learning Outcome (the learner will:)	Assessment Criteria (the learner can:)
Know what's included in the induction process	<ul style="list-style-type: none"> • Explain what the term 'induction' means, why it is necessary for new employees; when it begins; its duration, and who conducts it. • Explain what subjects and issues are covered during an induction. • Describe what information sources concerning the industry, the Company and career paths are readily available.
Know the basic concepts of employment law	<ul style="list-style-type: none"> • Describe the key features of a Contract of Employment. • Explain how the 'Working Time Directive' governs contractual working hours and holiday entitlements. • Explain how data protection legislation impacts upon employer/employee relationships. • State the rights of an employee in discipline grievance and dismissal issues.
Know the basic principles of how safety, health and environmental legislation applies to their industry.	<ul style="list-style-type: none"> • Explain the prime employer/employee rights and responsibilities within the workplace, towards the general environment and the public at large. • Describe the key, potential hazards for people and the environment and how these are dealt with, through legislation and good practice.

	<ul style="list-style-type: none"> • Explain the general principles of statutory, workplace risk assessment processes.
Know the purpose of the industry, its processes and key stakeholders.	<ul style="list-style-type: none"> • State the main purpose of the industry. • State the key materials, equipment and processes involved in the industry. • State guidance and documentation relevant to the job role. • State the major organisations associated with the industry and the role that they play
Know how their job role fits. within the organisation.	<ul style="list-style-type: none"> • Obtain the organisation structure, and explain job roles and reporting structures. • State how their role contributes to the organisation's aims.
Know how discrimination. and harassment can affect the workplace.	<ul style="list-style-type: none"> • State the Acts relative to gender, race, age and pay. • State the responsibilities of Trade Unions and the benefits to employees.

A/503/5025: Understanding how to contribute to improving the effectiveness of the Print Company

This is a mandatory module.

The aims of this module are to ensure the candidate has knowledge and understanding of the importance of the Company and individuals looking for ways to improve efficiency and performance, minimising waste.

Learning Outcome (the learner will:)	Assessment Criteria (the learner can:)
Know why it is important to contribute to improving the effectiveness of the Company	<ul style="list-style-type: none"> Explain 3 reasons for contributing to improving the effectiveness of the Company.
Know how to obtain and understand the work schedule	<ul style="list-style-type: none"> Explain the Company procedure for scheduling the required work. Explain how to obtain the work schedule. Explain what to do if the work schedule is unclear or not achievable
Know how to ensure that the required quantities of products and materials and human resources are used.	<ul style="list-style-type: none"> Explain how to ensure that the required quantities of products and materials and human resources are selected. Explain what to do if there are insufficient resources to meet the required output.
Know how to minimise wastage of materials	<ul style="list-style-type: none"> List three types of material that can potentially be wasted. Describe what actions can be taken to minimise wastage of the materials listed. Explain how surplus materials may be reused.
Know how to identify and pass on improvements to	<ul style="list-style-type: none"> Explain 2 ways to identify improvements that can be made in work activities.

work activities.	<ul style="list-style-type: none"> • Explain how to pass on suggestions for improvements identified in line with Company practices.
Know how and why to identify opportunities and needs for personal development and how to manage this information.	<ul style="list-style-type: none"> • Explain 2 ways that a need to update skills and/or knowledge of the print industry can be identified. • Give 2 examples of how to check opportunities for personal development related to the print industry. • Explain the benefits of keeping skills and knowledge up to date.
Know how to identify the current and required skills, knowledge and performance of colleagues	<ul style="list-style-type: none"> • Explain how to monitor if colleagues have the required skills and knowledge to carry out their job role. • Explain how to identify potential opportunities for developing the skills and knowledge of colleagues. • Give 3 examples of situations that may mean staff training is needed and what to do when a need is identified. • Explain the benefits of staff keeping skills and knowledge up to date, give one benefit to the business and one to the individual.

This is a mandatory module.

The aims of this module are to ensure the candidate has knowledge and understanding of Health and Safety and communication within the print working environment, including hazard awareness and formal risk assessments. The candidate will also be required to show an understanding of how to obtain information and promote and monitor changes and updates to Health and Safety matters. Finally there is the need to understand emergency procedures and how to deal with, record and investigate accidents and incidents.

Learning Outcome (the learner will:)	Assessment Criteria (the learner can:)
Know which acts, regulations and guidelines apply to the print working environment and where this information can be obtained.	<ul style="list-style-type: none"> • Under the Health and Safety at Work Act 1974, describe the employees and employers' primary legal responsibilities. • List 3 Health and Safety regulations relevant to their job role and how they apply to the individual and the Company. • Explain how to obtain further accurate information on Health and Safety acts, regulations, and guidelines. • Explain how compliance with Health and Safety matters is monitored. • Explain the possible implications for the Company of non-compliance with Health and Safety issues.
Know how to obtain information and keep aware of changes in Health and Safety acts, regulations and guidelines that apply to the print working environment.	<ul style="list-style-type: none"> • Give 3 reasons why it is important to obtain details of changes to Health and Safety related information in the print working environment. • Explain 2 ways to obtain information on changes in Health and Safety acts, regulations and guidelines. • Describe 2 methods of obtaining explanations of Health and Safety updates or information.

<p>Know how to promote and monitor Company Health and Safety policies and guidelines.</p>	<ul style="list-style-type: none"> • Explain when the Company must have written Health and Safety policies. • List three items of Personal Protective Equipment and its use. • Explain how to promote and monitor compliance with Health and Safety requirements.
<p>Know the causes of health risks in printing.</p>	<ul style="list-style-type: none"> • Explain the regulations in regard to personal health risks in printing. • Describe 3 risks when using hazardous substances. • Explain how to minimise the risks identified.
<p>Know how to implement and monitor changes in Health and Safety practices of others to comply with legislation, regulations and organisational guidelines.</p>	<ul style="list-style-type: none"> • Explain how to introduce and implement changes in Health and Safety practices of others. • Explain how to monitor the implementation of changes in Health and Safety working practices of others in the print related working environment.
<p>Know how to carry out a formal assessment of hazards and risks in the print related working environment.</p>	<ul style="list-style-type: none"> • Describe the steps in carrying out a formal risk assessment.
<p>Understand how to adopt and monitor safe working practices.</p>	<ul style="list-style-type: none"> • Explain where information can be found for the operation of the equipment used in their job role. • State 2 pieces of equipment used in the printing industry which is not permitted to be operated by anyone unsupervised under 18 years of age. • Explain what to do if the required PPE or tools and equipment are not available or fit for purpose. • Describe the Company procedures for disposing of chemicals, solvents and soiled waste to comply with legislation. • Explain what to do if any task is carried out without following Health and Safety guidelines or legislation.

	<ul style="list-style-type: none"> • Explain what to do if asked to carry out a task without following Health and Safety guidelines or legislation.
<p>Know what to do in the event of accidents, emergencies and Health and Safety related incidents.</p>	<ul style="list-style-type: none"> • Describe the Company procedures to follow in the case of an accident. • Describe the Company procedures to follow in the case of an emergency. • Describe the procedure for evacuating workers and visitors. • Describe the procedure for reporting and recording accidents and emergencies. • List the types and uses of fire extinguishers. • Explain what is meant by a “near miss” and why and how these should be recorded.
<p>Know how to investigate accidents to identify the cause and why this is important.</p>	<ul style="list-style-type: none"> • Explain how to investigate and identify the cause of an accident. • Give 3 benefits from carrying out investigations into the causes of accidents.

Y/503/5081: Understanding Digital Artwork

This module is a requirement of the digital artwork pathway.

The aim of this module is to provide the candidate with the knowledge and skills to be able to manage the design and production of digital artwork and monitor the quality of output from digital printing equipment. Candidates will need to be aware of the range of quality checks used in the organisation, and also the recording or relevant information. Knowledge of the terminology used in digital artwork is also covered.

Learning Outcome (the learner will:)	Assessment Criteria (the learner can:)
Know the hardware and software available to create digital artwork.	<ul style="list-style-type: none"> • List the hardware available for producing digital artwork. • Explain the function of each piece of hardware listed. • Describe the use of the following software: <ul style="list-style-type: none"> • Photo editing • Word processing • Drawing and illustration • Pre-flight software • Page makeup • Colour management software • Explain how to ensure the software and hardware are suitable for use.

<p>Know the attributes and applications of digital fonts and type face.</p>	<ul style="list-style-type: none"> • Explain the principle difference between “serif” and “sans serif” styles. • Explain the difference between “symmetrical” and “asymmetrical” designs. • State 4 variable characteristics that can be applied to a selected type face. • Explain the meaning of the following in terms of alignment: <ul style="list-style-type: none"> • Aligned right, aligned left, Centred, Fully justified • Explain the difference between “postscript” and “true type” fonts. • Describe the implications of transferring text files into a document. • Explain how fonts are affected by copyright.
<p>Know how to interpret the design specifications.</p>	<ul style="list-style-type: none"> • Explain how to obtain the proposed specification for the artwork and the intended use. • Describe the information required from a design specification to allow for production of artwork. • Explain the factors to consider when choosing the software and hardware to meet the job specification. • Explain how to determine the sequence of tasks to enable efficient production output.
<p>Understand the use of digital images.</p>	<ul style="list-style-type: none"> • Describe the types of images used in digital artwork and how they can be obtained. • Explain the techniques available for manipulating and enhancing digital images. • List 3 considerations when correcting an image for output. • Explain how digital artwork and design can be affected by: <ul style="list-style-type: none"> • Sources of original material, copyright • The relationship between image size, file size and resolution • File formats for digital images • Limitations of the output device for print

	<ul style="list-style-type: none"> • Explain the advantages of compressing digital images. • Explain why it is important to establish the correct resolution of digital images. • Describe the influencing factors when selecting the screen ruling of an image for print. • Explain the benefits of “UCR” and “GCR”.
<p>Know how to format artwork for print.</p>	<ul style="list-style-type: none"> • Describe the principles of design. • Explain the information required to set up a page template. • Describe what to consider when creating a page layout for print. • Explain why it is important to make reference to the imposition. • Describe the use of working in layers when creating artwork for print. • Explain the benefits of working with text boxes when preparing a document for print. • Explain the purpose of pre-flight checks. • List 2 items which could be highlighted during the Preflight of a file for print. • Explain the type of information to provide to a customer in respect of limitations of a proof supplied and why this is important. • Describe the advantages of using low resolution PDF files as proofs. • Explain the importance of saving and labelling artwork at different stages during production. • Explain the importance of storing and archiving work safely, to include customer supplied material.
<p>Understand the importance of obtaining authorisation and agreement for work.</p>	<ul style="list-style-type: none"> • Explain why it is important to get auditable approval from a customer before handing the job over to further stages of production. • 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

	<p>contract and explain when and how this should be done in line with Company procedures.</p> <ul style="list-style-type: none"> • Explain the Company procedures for making corrections or amendments required by a customer.
<p>Know the main issues. connected with colour in digital printing.</p>	<ul style="list-style-type: none"> • Explain the main choices of colour modes in print. • Explain the implications of selecting an incorrect colour mode within a document. • Explain why colour displayed on a monitor may vary from the printed output or proof. • Describe the steps that can be taken to reduce the risk of unexpected differences between screen colour and printed colour. • Explain the meaning of standard viewing conditions. • Describe how lighting conditions can affect the appearance of the colour. • Describe the RGB additive colour theory. • Describe the CMYK subtractive colour theory.
<p>Understand the terminology used in digital artwork.</p>	<ul style="list-style-type: none"> • Interpret the following: <ul style="list-style-type: none"> • Fonts, Proof, Layout, Specification, Imposition, Bleed, dpi • Explain the term "registration". • Explain the meaning of the following terms: <ul style="list-style-type: none"> • Trapping, Knockout, Overprint, Colour gamut

R/503/5080: Understanding Digital Printing

This module is a requirement of digital printing pathway.

The aim of this module is to provide the candidate with the knowledge and skills to be able to manage the operation and quality of output from digital printing equipment. Candidates will need to be aware of the range of quality checks used in the Organisation, and also the recording of relevant information. Knowledge of the terminology used in digital printing is also covered.

Learning Outcome (the learner will:)	Assessment Criteria (the learner can:)
Know how to maintain digital printing machines in working order.	<ul style="list-style-type: none"> • Explain how to ensure that the manufacturer's instructions for the cleaning and maintenance of the digital printer are followed and completed at the recommended intervals. • Describe why colour calibration and/or colour profiling is undertaken at the required intervals. • List 3 consumable items that require periodic replacement/replenishment.
Know how to manage digital colour printing machines.	<ul style="list-style-type: none"> • State the requirements for security and storage within their company for: <ul style="list-style-type: none"> • Computer system security and virus protection • Print with time-sensitive or restricted release dates • High value products or print with a high risk of theft • Secure means of archiving digital and conventional artwork

	<ul style="list-style-type: none"> • State how to deal with digital files in relation to the following: <ul style="list-style-type: none"> • File conversion techniques • File compression and decompression techniques • The transmission of digital files • Creating relationship between primary and secondary data • Explain the procedures for: Planning, Scheduling, Recording, and reporting Product labelling. • Explain the purpose of “pre-flight” with regards to digital files and how this is done. • Explain how to deal with a situation where incorrect colour profiles are embedded. • Describe the range of proofs in use and their role in the printing process and the limiting factors. • Explain the types of adjustments that can be made to meet the job specification and the Company quality standards. • Describe 2 faults that can occur in digital printing and how to rectify them, one each that is concerned with: <ul style="list-style-type: none"> • Printed image • Machine fault
<p>Know how to monitor the quality of output from the digital printing machines.</p>	<ul style="list-style-type: none"> • Explain the Company procedures for monitoring the quality of output, to include: <ul style="list-style-type: none"> • Frequency, Type of checks, Viewing conditions, Quality control aids/devices, acceptable tolerances/variation • Describe the purpose of achieving an approved copy. • Identify the items on the product to be monitored during production output. • Describe 3 methods used to monitor the standard of output achieved. • Describe the Company procedures for the removal of waste.

	<ul style="list-style-type: none"> • Explain the reason for maintaining performance records, for example: <ul style="list-style-type: none"> • Machine make-ready, Running speeds, Production time, Downtime in production
<p>Know how to control the use of variable data with digital printing machines.</p>	<ul style="list-style-type: none"> • Explain their understanding of the law as it affects printing in relation to: <ul style="list-style-type: none"> • Data protection • The printer's imprint • Explain the terminology used within typography, artwork and design to include: <ul style="list-style-type: none"> • Proof, Layout, Specification, Imposition • Explain the function of mail merge and when it may be beneficial. • Explain how to determine that a file containing print is in the required format. • Explain the possible causes of faults which can cause the following problems: <ul style="list-style-type: none"> • Variable data being in the wrong place or wrong sequence • Stoppages causing records to be printed twice • Stoppages causing records to be missed
<p>Understand the terminology used in digital printing.</p>	<ul style="list-style-type: none"> • Explain the meaning of the following: <ul style="list-style-type: none"> • Ripping • Calibration • Explain the difference between "brightness" and "contrast" in relation to images. • Explain the meaning of image resolution and how this can affect the printed output. • Describe 2 checks that would be made when calibrating a digital press for output.
<p>Know the main issues connected with colour in</p>	<ul style="list-style-type: none"> • Identify the main choices of colour mode for use in digital printing.

<p>digital printing.</p>	<ul style="list-style-type: none"> • State 2 steps that can be taken to reduce the risk of unexpected differences between screen colour and printed colour. • Explain the term “registration”. • Explain the meaning of the following terms: <ul style="list-style-type: none"> • Trapping, Knockout, Overprint, Colour gamut
<p>Know how to ensure job instructions/handovers to colleagues are completed to minimise problems.</p>	<ul style="list-style-type: none"> • Explain the information a colleague will require when taking over production/output. • Explain the methods available for giving clear instructions to colleagues.

K/503/5084: Understanding how to manage Print Machines

This module is a requirement of the machine printing pathway.

The aim of this module is to provide the candidate with the knowledge and skills to be able to manage the operation and quality of output for printing machines such as: sheet-fed multi-unit lithographic printing machines, wide-web printing machinery and narrow-web printing machinery. Candidates will need to be aware of the range of quality checks used in the Organisation, and also the recording of relevant information.

Learning Outcome (the learner will:)	Assessment Criteria (the learner can:)
Know how to manage print production machines.	<ul style="list-style-type: none"> • Describe the principles of the process being managed. • Explain the different types of resource, including labour, materials, machinery required to carry out the work. • Explain the relationship between resource usage and profitability. • Explain the importance of maximising productivity and how to do this. • Explain how to identify maintenance schedules and needs and how to liaise with relevant colleagues to ensure output is maintained to the required standard and rate.
Know how to maintain equipment in working order.	<ul style="list-style-type: none"> • Describe the principal activities involved with machine cleaning, lubrication and maintenance to include: <ul style="list-style-type: none"> • Roles and responsibilities for cleaning, lubrication and maintenance • The choice and use of suitable cleaning agents and lubricants • The maintenance plans for equipment

	<ul style="list-style-type: none"> • When and how to start up and shut down equipment for maintenance and cleaning • Describe how the following could affect the maintenance of equipment: <ul style="list-style-type: none"> • Tools, Materials, Production requirement, Lack of skills or training, Sources of information • List consumables that are likely to require periodic replacement. • Identify 3 machine parts that may require replacing. • Explain the Company policies and processes on the availability of parts and consumables.
<p>Know how to identify, correct, and record machine faults.</p>	<ul style="list-style-type: none"> • Describe 3 faults that should be able to be corrected without summoning external assistance. Give one example each of a problem that could: <ul style="list-style-type: none"> • Affect the quality of output, Reduce the rate of output, Affect Health and Safety • Explain the likely causes of the faults identified and explain how to correct them including the tools, equipment and PPE required. • Explain the Company procedures on reporting faults which fall outside their area of responsibility/capability and the importance of following procedures. • Explain how to assess the estimated time it will take to rectify faults and the Company procedures on informing the relevant people. • Explain how and why to record the details of machine faults and production down-time following Company procedures.
<p>Know how to monitor the quality of output from printing machines.</p>	<ul style="list-style-type: none"> • Explain the Company procedures for monitoring the quality of output, to include: <ul style="list-style-type: none"> • Frequency, Type of checks, Viewing conditions, Quality control aids/devices, acceptable tolerances/variation

	<ul style="list-style-type: none"> • Describe the purpose of achieving an approved copy. • Identify the items on the product to be monitored during production output. • Describe 3 methods used to monitor the standard of output achieved. • Describe the Company procedures for the removal of waste. • Explain the reason for maintaining performance records, for example: • Machine make-ready, Running speeds, Production time, Downtime in production
<p>Understand the differences between “in-line” and “off-line” processes.</p>	<ul style="list-style-type: none"> • Explain the meaning of “in-line” and “off-line” processes. • Explain the possible benefits and disadvantages of in line processes. • Explain the possible benefits and disadvantages of off-line processes.
<p>Understand the inks and ink drying equipment used in the print industry.</p>	<ul style="list-style-type: none"> • Describe the types and characteristics of inks and coatings. • Explain the operation of 2 of the following pieces of equipment: <ul style="list-style-type: none"> • Ink weighing and checking equipment • Viewing equipment • Spectrophotometers • Explain three common problems with inks and coatings, and their likely causes. • Explain the Company procedure for recording and reporting faults/problems. • List the methods and processes available to dry inks. • Describe how to start up, operate and stop ink drying equipment for: <ul style="list-style-type: none"> • Normal use • Emergency situation • Explain the Company procedure for the safe removal of waste from ink drying equipment.
<p>Know the substrates commonly used for printed products.</p>	<ul style="list-style-type: none"> • List 7 substrates that are used for printed products. • Give 2 examples of products typically produced using each substrate.

	<ul style="list-style-type: none"> • Name the print processes commonly used on each substrate. • Explain what factors can dictate the choice of substrate. • Describe the effect of humidity and temperature on substrates.
<p>Know how to ensure job instructions/handovers to colleagues are completed to minimise problems.</p>	<ul style="list-style-type: none"> • Explain the information a colleague will require when taking over production/output. • Explain the methods available for giving clear instructions to colleagues regarding their responsibility in the operation of the print machinery. • Explain the checks to make to ensure the instructions have been understood and followed.
<p>Know how to ensure Company procedures are followed for communicating production information.</p>	<ul style="list-style-type: none"> • Explain the Company administrative procedures, for example: <ul style="list-style-type: none"> • Scheduling • Recording and reporting • Product labelling • Reporting faults and production downtime

D/503/5082: Understanding how to manage Print Finishing Machines

This module is a requirement of the print finishing pathway.

The aim of this module is to provide the candidate with the knowledge and skills to be able to manage the operation and quality of output for print finishing machines and their maintenance needs. Candidates will need to be aware of the range of quality checks used in the Organisation, and also the recording of relevant information.

Learning Outcome (the learner will:)	Assessment Criteria (the learner can:)
Know how to manage print finishing machines.	<ul style="list-style-type: none"> • Describe the principles of the process being managed including folding, guillotining, and binding for example. • Explain the different types of resource, including labour, materials, machinery required to carry out the work. • Explain the relationship between resource usage and profitability. • Explain the importance of maximising productivity and how to do this. • Explain how to identify maintenance schedules and needs and how to liaise with relevant colleagues to ensure output is maintained to the required standard and rate.
Know how to maintain equipment in working order.	<ul style="list-style-type: none"> • Describe the principal activities involved with machine cleaning, lubrication and maintenance to include: <ul style="list-style-type: none"> • Roles and responsibilities for cleaning, lubrication and maintenance • The choice and use of suitable cleaning agents and lubricants • The maintenance plans for equipment

	<ul style="list-style-type: none"> • When and how to start up and shut down equipment for maintenance and cleaning • Describe how the following could affect the maintenance of equipment: <ul style="list-style-type: none"> • Tools, Materials, Production requirement, Lack of skills or training, Sources of information • List consumables that are likely to require periodic replacement. • Identify 3 machine parts that may require replacing. • Explain the Company policies and processes on the availability of parts and consumables.
<p>Know how to identify, correct, and record machine faults.</p>	<ul style="list-style-type: none"> • Describe 3 faults that should be able to be corrected without summoning external assistance. Give one example each of a problem that could: <ul style="list-style-type: none"> • Affect the quality of output, Reduce the rate of output, Affect Health and Safety • Explain the likely causes of the faults identified and explain how to correct them including the tools, equipment and PPE required. • Explain the Company procedures on reporting faults which fall outside their area of responsibility/capability and the importance of following procedures. • Explain how to assess the estimated time it will take to rectify faults and the Company procedures on informing the relevant people. • Explain how and why to record the details of machine faults and production down-time following Company procedures.
<p>Know how to monitor the quality of output from print finishing machines.</p>	<ul style="list-style-type: none"> • Explain the Company procedures for monitoring the quality of output, to include: <ul style="list-style-type: none"> • Frequency, Type of checks, Viewing conditions, Quality control aids/devices, acceptable tolerances/variation

	<ul style="list-style-type: none"> • Describe the purpose of achieving an approved copy. • Identify the items on the product to be monitored during production output. • Describe 3 methods used to monitor the standard of output achieved. • Describe the Company procedures for the removal of waste. • Explain the reason for maintaining performance records, for example: <ul style="list-style-type: none"> • Machine make-ready, Running speeds, Production time, Downtime in production
<p>Understand substrates and how they interact in relation to paper and board.</p>	<ul style="list-style-type: none"> • Describe the considerations when handling paper and board. • Explain what is meant by grain direction and the methods used to identify it. • Explain how grain direction can have an effect on: <ul style="list-style-type: none"> • The printability of the substrate • The finished product • Describe the effect of humidity and temperature on paper and board. • Describe the term 'conditioning'. • Explain dimensional stability and the effects on print register. • Describe the physical properties: <ul style="list-style-type: none"> • Smoothness, Whiteness, Porosity, Wet Strength, Absorbency, Fibres and fibre properties of paper and board • Explain the visual/optical properties: <ul style="list-style-type: none"> • Colour, Gloss, Opacity of paper and board • Explain 4 testing techniques carried out on paper and/or board during manufacture. • Describe 3 types of paper and 2 types of board used and typical end uses of each type. • Explain the following terms used to identify paper/envelope sizes, giving 3 examples of a size used in each system:

	<ul style="list-style-type: none"> • RA and SRA sizes • A, B and C series • Explain the systems used to identify: <ul style="list-style-type: none"> • “Weight” of paper/board • Thickness of paper/board • Describe the processes used in the recycling and de-inking of paper and board.
<p>Know how to ensure job instructions/handovers to colleagues are completed to minimise problems.</p>	<ul style="list-style-type: none"> • Explain the information a colleague will require when taking over production/output. • Explain the methods available for giving clear instructions to colleagues regarding their responsibility in the operation of the print finishing machinery. • Explain the checks to make to ensure the instructions have been understood and followed.
<p>Know how to ensure Company procedures are followed for communicating production information.</p>	<ul style="list-style-type: none"> • Explain the Company administrative procedures, for example: <ul style="list-style-type: none"> • Scheduling, Recording and reporting, Product labelling, Reporting faults and production downtime

PR507: Produce and Analyse Estimates for Print or Printed Services

The aim of this module is to provide the candidate with the knowledge and skills to be able to take responsibility for estimating the cost of supplying a printed product or print service, to be able to analyse the accuracy and effectiveness of the estimate and also to be able to identify where alternative materials or methods could be beneficial.

Understand and Analyse Estimates for Print or Print Services	
Learning Outcome (the learner will:)	Assessment Criteria (the learner can:)
Be able to interpret job specification	<ul style="list-style-type: none"> Interpret the customer's requirements to allow the production of accurate estimates Understand the following <ul style="list-style-type: none"> Methods of working The processes and sequence required for production Any outwork required When the work is required The packaging and delivery requirements Issues affecting cost and/or working e.g., material and equipment compatibility
Be able to produce estimates	<ul style="list-style-type: none"> Produce an estimate to meet the job specification following company procedures Analyse the estimated cost for added value, contribution, and cost ratio
Know how to produce estimates for print and print services	<ul style="list-style-type: none"> Explain the law as it affects printing in relation to copyright and ownership of images Describe confidentiality issues relating to estimates in print

	<ul style="list-style-type: none"> • Explain company policy for storage and security of items and job records • Explain how the law of contract applies to the following <ul style="list-style-type: none"> ○ Estimates v Quotations ○ Terms and Conditions • Describe the stages in the printing processes from pre-press to post-press • Describe how cost rates are calculated • Describe how standard production times are calculated
<p>Understand the percentage of overs required for different production processes</p>	<ul style="list-style-type: none"> • Describe typical questions asked by customers when producing estimates • Describe situations where alternative materials and/or methods of working could produce benefits including <ul style="list-style-type: none"> ○ A direct cost benefit ○ Cost benefit through reduced waste ○ Cost benefit through improved productivity

GOOD MANUFACTURING PRACTICE (GMP)

This Good Manufacturing Practice (GMP) training course provides learners with a thorough understanding of food hygiene practices that are specific to food manufacturing premises, focusing on the specific day-to-day processes in a food or drink factory.

The course is accredited by the CPD Certification Service as conforming to universally accepted Continuing Professional Development (CPD) guidelines. The course is also assured by the Royal Society for the Prevention of Accidents through their RoSPA Qualifications Assurance System, as providing up-to-date, quality and content-approved training.

- Approximate duration: 1-hour, same day digital certificate. Printed certificate posted the next working day

The course consists of 4 modules:

Module 1 – Introduction to GMP
This module outlines what is meant by ‘good manufacturing practice’ and explains why it’s important for employees to learn more about it. The module looks at how food businesses can comply with the law and what happens if they don’t.
Module 2 – Good and Bad Practices
This module provides examples of what constitutes good vs bad practice and helps candidates understand why personal hygiene and cleaning schedules are so important
Module 3 – HACCP
This module reminds candidates of that they should know in regards to HACCP and explains why it’s an important component of food manufacturing premises. The module explains why HACCP is relevant for workers

Module 4 - Workplace Hygiene

This module explains the procedures to follow if there is a breakage in the premises that may cause physical contamination, how to maintain personal hygiene and clean effectively, and why it's important to carry out regular maintenance and pest-proof the premises.