

Standard in development

L3: Print technician

Title of occupation

Print technician

UOS reference number

ST0309

Core and options

Yes

Option title/s

Pre-press print technician

Press print technician

Post-press print technician

Level of occupation

Level 3

Route

Engineering and manufacturing

Typical duration of apprenticeship

36 months

Target date for approval

01/01/0001

Resubmission

No

Would your proposed apprenticeship standard replace an existing framework?

No

Does professional recognition exist for the occupation?

No

Occupation summary

Print technicians are found in the print and graphics communication sector in printing, packaging, creative and design companies.

It is a technologically advanced and fast-changing sector. The industry plays a central role in marketing and communications. It provides a physical product which is integrated into the multi-channel, multi-media and digital landscape.

It includes:

- magazines, newspapers, books and posters
- cartons, packaging, labels, signs and banners
- personal gifting, such as calendars, photo books and greeting cards
- functional printing onto materials other than paper, such as plastics, electronic circuits (to make flexible screens), textiles and a wide range of other materials
- physical printed security products such as passports, ID cards, bank notes and credit cards

Employers vary in size from small to large. Print technicians may work in copy shops, reprographic units, specialist print businesses or large multinational organisations.

This is a core and options apprenticeship standard. Apprentices are trained and assessed against the core and one option:

- Option 1: Pre-press print technician
- Option 2: Press print technician
- Option 3: Post-press print technician

Pre-press is the first stage of production. Pre-press print technicians conduct the processes and procedures that occur between the creation of a design and the printing process. The procedures used in pre-press are called workflows, which vary from case to case.

Press print technicians conduct the printing. Printing is carried out using printing presses. There are seven different categories of printing: lithography, screen, flexography, gravure, letterpress, pad and digital. Each requires different techniques. Companies may use one or more categories of press.

Post-press print technicians conduct finishing or post-press processes after printing. It is usually the final stages of creating a printed product. Through finishing, printed material is made into finished products such as books, booklets, catalogues, pop-ups and display units. They use special techniques. For example: cutting paper, cutting and folding sheets, gluing or stapling sections together and producing a fully bound book. There are also highly skilled 'craft finishers'. They use special tools and work with materials such as wood, leather, fabric and metals including gold leaf. Examples of craft work include special edition or historic

books, or high value promotional campaigns. Work may also be conducted in teams, with each performing different functions to hit the quality criteria and production schedule.

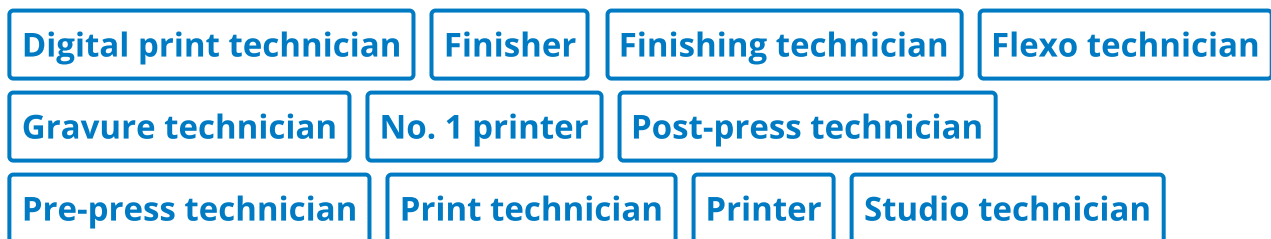
Print technicians conduct one stage of the printing process to produce a range of printed goods. They set up and operate complex print machinery and equipment to produce print products to the client's order specification and timescales. They use their technical judgement to optimise production, maintain machinery and to resolve production problems and improve performance.

They produce risk assessments and safely handle hazardous materials. They must ensure a safe working environment that complies with health, safety and environmental requirements. To manage the production process, they must keep records using both digital and manual processes. They must work effectively with others, including giving clear instructions to colleagues. They may be required to supervise operatives.

On a daily basis technicians have contact with colleagues both within the department and in other departments. They may also interact with clients. Typically, they report to a production manager.

They are responsible for ensuring that work meets quality assurance requirements and the customer brief. Work must be completed in line with health, safety and environmental regulations, standards and guidance. They may have to wear personal protective equipment and follow workplace safety rules such as safely handling hazardous materials.

Typical job titles



Are there any statutory/regulatory or other typical entry requirements?

No

Core occupation duties

DUTY	KSBS
<p>Duty 1 Prepare for print job by reviewing job bag or work instructions to ensure that equipment and materials have been included. Review with production team if any improvements or changes should be made.</p>	<p>K7 K10 K14 S3 S4 S11 S12 B5</p>
<p>Duty 2 Assess quality of print work and consumables received and confirm suitability before proceeding with work or processing. Liaise with the production team if any changes are needed.</p>	<p>K7 K14 S1 S3 S11 S12 B5</p>
<p>Duty 3 Assess final quality of product and confirm job specification is fit for purpose before passing to the next department or stage.</p>	<p>K7 S11 S12 B5</p>
<p>Duty 4 Conduct risk assessments on environment and equipment.</p>	<p>K1 K2 K3 K5 K7 S1 S2 S11 S12 B1 B2 B5</p>
<p>Duty 5 Ensure equipment is maintained, is safe and available for use in line with health, safety and environmental policy and procedures.</p>	<p>K1 S2 S11 S12 B1 B5</p>
<p>Duty 6 Ensure that all records, both digital and manual are updated both during and on completion of each stage.</p>	<p>K5 K10 K11 K12 K15 S2 S4 S8 S10 S11 S12 B5</p>
<p>Duty 7 Support continuous improvement initiatives within the department.</p>	<p>K4 K5 K8 K13 S1 S5 S6 S7 S12 B3 B4 B5</p>
<p>Duty 8 Lead solving of issues identified by print operatives or support peers in their handling of the issues.</p>	<p>K5 K9 K13 S1 S6 S7 S9 S12 B3 B4 B5</p>

Duty 9 Ensure that company initiatives and policies for a safe and productive environment are upheld, for example, 5S or Lean manufacturing.	K1 K5 K6 K13 S12 B5
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Option duties

Pre-press print technician duties

DUTY	KSBS
Duty 10 Propose and agree design specification with internal or external customers and be able to produce creative digital colour artwork.	K21 K22 K24 K25 S15 S20
Duty 11 Identify digital files. For example, words, pictures and sourcing other files via scanning or photography.	K18 K19 K21 K22 K24 K25 K26 S13 S15 S20
Duty 12 Format typographic elements within a document. This involves the arrangement of type and pictures, including font size and style, as well as spacing and the length of copy on a line and page. Use software applications to produce work via page make-up and photo editing software.	K18 K19 K20 K21 K22 K24 K25 K26 S13 S14 S15 S20
Duty 13 Proof and make changes to artwork following company procedures and maintain records and secure artwork in compliance of General Data Protection Regulation (GDPR).	K18 K19 K21 K22 K23 K24 K25 K26 S13 S14 S17 S20
Duty 14 Produce artwork using the correct colour profiles and design suitable for the relevant materials.	K16 K17 K19 K20 K21 K22 K23 K24 K25 S13 S14 S16 S18 S19 S20

Press print technician duties

DUTY	KSBS
Duty 15 Ensure that the work schedule for a defined period or shift will minimise wash ups, changeovers, and machine downtime.	K33 K34 K35 S21 S27
Duty 16 Run the press, check output and registration are within tolerances at pre-agreed checkpoints.	K28 K29 K30 K31 K32 K33 K34 K35 S21 S22 S23 S24 S26 S27 S28
Duty 17 Ensure that levels of waste and run overs required for subsequent stages of the process are managed, quality is achieved, and operational efficiency is maximised.	K29 K30 K31 K32 K33 K34 K35 S22 S23 S24 S26 S27 S28
Duty 18 Liaise and consult with internal or external customers on wet proofs or press sign-offs.	K29
Duty 19 Identify and conduct maintenance in line with both manufacturer and the job holder's authority.	K27 K31 K34 S25 S28

Post-press print technician duties

DUTY	KSBS
Duty 20 Monitor and review production schedules to ensure that the work can be carried out in the correct running order, completed on time.	S33
Duty 21 Ensure that materials and consumables supplied are suitable for the job at hand. For example, adhesives delivering the correct finish or stickiness, staples, wire sizes and finishing materials such as acetates or backing boards.	K36 K42 K44 K45 S33 S34
Duty 22 Operate print finishing equipment ensuring the output meets customer expectations and standards.	K37 K38 K39 K40 K41 K42 K43 K44 K45 K46 S29 S30 S31 S33 S34
Duty 23 Change and replace components as needed. For example, knives, heads, belts and drives.	K45 K46 S32 S34

KSBs

Knowledge

K1: Health and safety regulations. Health and Safety at Work Act – responsibilities. Control of Substances Hazardous to Health (COSHH). Due diligence. Emergency evacuation procedures. Isolation and emergency stop procedures. Lone working. Management systems of occupational health and safety ISO 45001. Manual handling. Near miss reporting. Noise regulation. Provision and use of Work Equipment Regulations (PUWER). Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR). Risk assessments. Safe systems of work. Safety equipment: guards, signage, fire extinguishers. Situational awareness. Slips, trips and falls. Types of hazards. Personal Protective Equipment (PPE). Working at height. Working in confined spaces.

K2: Environmental and sustainability regulations and guidance. Environmental hazards that can arise from printing operations. Waste management systems. Environmental Protection Act. Environmental signage and notices. Types of pollution and control measures: noise, smells, spills, and waste. Environmental permits. Hazardous waste regulations.

K3: Principles of sustainability. Energy efficiency and reuse of materials. Recycling procedures. Principles of control. Disposal of waste. Efficient use of resources.

K4: The printing and graphic communication industry. Types of printing. Types of products. Supply chain. Customers. Customer requirements. Impacts on product demand.

K5: Printing technician's role. Scope of responsibility. Company escalation procedures.

K6: Printing industry organisations: their work, culture, values and production processes.

K7: Company processes and equipment: Pre-press, press and post-press.

K8: Continuous improvement principles and techniques.

K9: Problem solving principles and techniques.

K10: Workflow management systems, communications systems and how they are impacted by General Data Protection Regulation (GDPR).

K11: Verbal communication techniques. Giving and receiving information. Matching style to audience. Barriers in communication and how to overcome them. Printing industry terminology.

K12: Written communication techniques. Plain English principles. Printing terminology.

K13: Principles of team working and equality, diversity, and inclusion in the workplace.

K14: Planning, prioritising and time management.

K15: Documentation methods and requirements, electronic or paper.

K16: Output or production of image carrier creation techniques and application: print-ready electronic files, plate, cylinder or screen.

K17: Colour theory and application.

K18: Digital file types and impact on sending including print-ready PDFs, databases or work flow management and colour and ink profile files.

K19: Digital files: receipt, checking and processing techniques.

K20: Imposition scheme and job layout creation techniques.

K21: Software relating to product design and output.

K22: Digital artwork: design and production techniques for printing.

K23: Colour profiles: setting techniques.

K24: Pre-press equipment application and operation.

K25: Pre-press quality assurance requirements and monitoring processes.

K26: Process risks in pre-press. Defect types and causes.

K27: Press machine maintenance practices and techniques: planned, preventative and predictive methods, frequency and reactive activities.

K28: Chemicals required for machine operations and their safe application.

K29: Printing materials and properties: inks, toners, blankets, plates, cylinders.

K30: Press printing process methods and techniques.

K31: Press machinery and equipment preparation, operation, and limitations.

K32: Digital press operation: Understanding when variable data is being output correctly and conducting checks, both manual and automated.

K33: Press machinery shut down and hand over procedures.

K34: Press quality assurance requirements and monitoring processes.

K35: Process risks in press. Defect types and causes.

K36: Finishing materials and properties including adhesives, laminates, and chemicals.

K37: Sheet conversion techniques.

K38: Folding types including parallels, gatefolds, barn door flap folds, and letter folds (wrap folds) and benefits or constraints of one type of fold over another.

K39: Post-press equipment preparation and operation.

K40: Post-press printing process methods and techniques.

K41: Finishing techniques.

K42: Post-press quality assurance requirements and monitoring processes.

K43: Packing processes.

K44: Conversion of source materials to finished product techniques.

K45: Process risks in post-press. Defect types and causes.

K46: Post-press maintenance practices and techniques: planned, preventative and predictive methods, frequency and reactive activities.

Skills

S1: Apply environmental and sustainability procedures in compliance with regulations and standards for example, segregating resources for reuse, recycling and disposal.

S2: Apply health and safety and manual handling procedures in compliance with regulations and standards.

S3: Plan and prioritise work

S4: Record or enter information - paper based or electronic for example, work sheets, check lists, handover records, job sheets.

S5: Apply continuous improvement techniques. Devise suggestions for improvement.

S6: Follow equality, diversity and inclusion procedures.

S7: Communicate with others verbally including colleagues or stakeholders.

S8: Communicate in writing.

S9: Apply problem-solving techniques to common problems.

S10: Use information and digital technology. Comply with GDPR and cyber security regulations and policies.

S11: Identify, organise and use resources effectively to complete tasks, with consideration for cost, quality, safety, security and environmental impact.

S12: Apply team working principles.

S13: Convert customer files to print-ready files using software and workflow packages.

S14: Check, process and transmit digital files using software.

S15: Create and edit digital images.

S16: Conversion of colour split for the defined production method.

S17: Apply digital techniques to produce a proof.

S18: Apply colour profiles to the design.

S19: Apply production techniques to produce plates, screens, or output files.

S20: Apply pre-press quality assurance procedures.

S21: Set up and check the multi-unit print press, including speeds, inks and toners and pre-printing quality checks.

S22: Follow print press start up or warm up procedures.

S23: Apply print press operations and techniques, including managing colour. Handle variable data on digital presses.

S24: Follow quality control processes during printing, including checking for colour matching, print resolution, product consistency.

S25: Apply press equipment and machinery maintenance techniques including cleaning and servicing.

S26: Follow machine shut down, safe isolation, hand over procedures. Escalate issues.

S27: Apply press quality assurance procedures.

S28: Apply safe systems of work to the printing press process in compliance with regulations, standards, and guidelines. This should include identifying risks and hazards and the handling and disposal of chemicals.

S29: Set up finishing equipment for example, guillotines, stitching-trimming machinery, binding machinery, laminating equipment, die-cutters.

S30: Operate finishing equipment to apply different finishing processes, for example, varnishing, folding, embossing and debossing, foil blocking, scoring, packing, gluing, match and attach, tab and slot, sorting, banding.

S31: Prepare printing for next stage, including packing and wrapping.

S32: Apply post-press equipment maintenance techniques including cleaning and servicing.

S33: Apply post-press quality assurance procedures such as checking for folding accuracy, stitch alignment, foil position.

S34: Apply safe systems of work to the finishing process in compliance with regulations, standards and guidelines, including the handling and disposal of chemicals.

Behaviours

B1: Take personal responsibility for and promote health, safety, and wellbeing.

B2: Consider the environment and sustainability.

B3: Collaborate within teams, across disciplines and external stakeholders.

B4: Committed to continued professional development (CPD) to maintain and enhance competence in their own area of practice.

B5: Take responsibility for the quality of work.

Qualifications

English and Maths

Apprentices without level 2 English and maths will need to achieve this level prior to taking the End-Point Assessment. For those with an education, health and care plan or a legacy statement, the apprenticeship's English and maths minimum requirement is Entry Level 3. A British Sign Language (BSL) qualification is an alternative to the English qualification for those whose primary language is BSL.

Does the apprenticeship need to include any mandated qualifications in addition to the above-mentioned English and maths qualifications?

No

Consultation

Progression Routes

Supporting uploads

Mandatory qualification uploads

Mandated degree evidence uploads

Professional body confirmation uploads

Notice period

90 days

The providers will need to make adjustments to their training programmes before enrolling candidates on the revised programme. We want to ensure that they have time to have the programmes in place to ensure that the candidates get the best possible outcomes