



印刷業
主要職務之工作範圍
Specifications for Principal Jobs
Printing Industry

職業訓練局
印刷及出版業訓練委員會
Printing and Publishing Training Board
Vocational Training Council

FOREWORD

The Printing Industry Training Board of the Vocational Training Council was appointed by the Government of the Hong Kong Special Administrative Region to be responsible for matters pertaining to the planning and training of manpower in the printing industry.

Since the manual on job specifications was published in 1998, tremendous developments and changes have taken place in the printing industry in terms of technology, job requirements and training. In view of this, the Training Board has again reviewed the manual and suitably revised the skills and knowledge requirements for some of the principal jobs, and prepared the specifications for other major principal jobs. In total, the present manual contains job specifications for 13 principal jobs including 4 at technologist level, 4 at technician level and 5 at craftsman level.

The job specifications in this manual should be regarded as guidelines and they are published for the following purposes:

- (i) to establish acceptable and uniform standards of skills for principal jobs in the printing industry;
- (ii) to assist employers to draw up systematic on-the-job training programmes for their trainees/apprentices;
- (iii) to assist employers to assess the competence of their workers; and
- (iv) to provide guidelines for technical training institutions in the planning of courses.

We hope that the revised manual will serve as a useful reference and help upgrade the skills standard of the technical workforce within the printing industry.

(HO Ka-hun)
Chairman
Printing and Publishing Training Board
October 2003

前言

職業訓練局屬下印刷業訓練委員會由香港特別行政區政府委任，負責與業內人力訓練有關的事宜。

自本會一九九八年出版工作範圍手冊以來，期間本港印刷業技術發展突飛猛進、職務需求、人力訓練等方面不斷發展和轉變；有見及此，本會再次檢討工作範圍手冊的內容，並修訂業內部分主要職務所需的行業技能及知識。此外，亦新加了其他主要職務。新的工作範圍手冊共有十三個主要職務，包括四個技師級、四個技術員級及五個技工級職務。

本手冊所載主要職務的工作範圍，可為下列各方面提供指引：

- (i) 為印刷業主要職務制定一套合適及劃一的技能標準；
- (ii) 協助僱主為屬下受訓者／學徒設計有系統的在職訓練計劃；
- (iii) 協助僱主評估員工的工作能力；
- (iv) 協助工業訓練機構籌辦課程。

本會希望修訂後的工作範圍手冊，可供有關人士作為參考之用，協助提高印刷從業員的技能水平。

印刷及出版業訓練委員會主席

何家鏗

二 三年十月

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Secretary

Mr WAI Chun-Kwok	(Vocational Training Council)
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秘書

韋鎮國先生 (職業訓練局)

**Working Party on Job Specifications,
Trade Tests and Training Programmes for Principal Jobs
(Printing Industry)**

主要職務工作範圍、
技能測試及訓練方案工作小組
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Ms WONG Lai-ling, Hedy (黃麗玲女士)

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- I. *JOB TITLE* : **FACTORY MANAGER**
- II. *JOB LEVEL* : TECHNOLOGIST / MANAGERIAL
- III. *JOB DESCRIPTION* : Assists the employer in planning, budgeting, directing and controlling all aspects of the establishment including the overall supervision of associated areas to ensure the most effective and economical means of production.
- IV. *TRADE SKILLS* : Ability to:
1. Advise on the formulation of general and financial policies and production cost control plans in a printing factory.
 2. Manage a printing factory according to formulated policies and prescribed standards and regulations.
 3. Plan and organise production facilities to optimise production and meet delivery and quality requirements.
 4. Develop and maintain an efficient organization structure.
 5. Plan and use efficiently manpower, equipment, material, financial and other resources.
 6. Determine training and manpower requirements.
 7. Determine wage systems and incentive schemes.
 8. Develop and appraise the performance of subordinates.
 9. Develop and plan production systems and methods appropriate to resources available.
 10. Plan and organise research and development programmes.
 11. Maintain safe and good working conditions and harmonious labour relations.
 12. Liaise with external bodies such as Government and business sectors.
 13. Delegate authority.

V. *THEORY*

: Knowledge of:

1. Printing technology and manufacture.
2. Factory administration, public relations and marketing.
3. Design of production systems.
4. Organization of a printing factory.
5. Analysis of production costs.
6. Relation between cost effectiveness, quality standards and performance.
7. Statistical methods.
8. Research and development.
9. Labour relations.
10. Computer applications.
11. Company rules and regulations.
12. Management in environmental protection and waste disposal.
13. Industrial hazards and the necessary safety precautions.
14. Relevant Occupational Safety and Health Ordinance, Factories and Industrial Undertakings Ordinance and Apprenticeship Ordinance, as well as environmental legislations and intellectual property laws.

VI. *TRAINING*

: Must complete the following or equivalent to:

1. A relevant degree or equivalent course in printing.
2. A minimum of 2-year on-the-job training in the appropriate field; and
3. A minimum of 5-year appropriate managerial experience in the printing industry or 7-year (for Higher Diploma or equivalent holders) working experience in production planning and control in the printing field.

- I. *JOB TITLE* : **PRODUCTION MANAGER**
- II. *JOB LEVEL* : TECHNOLOGIST / MANAGERIAL
- III. *JOB DESCRIPTION* : Plans and executes print production systems. Takes charge of production. Manages and directs the production department personnel to maintain quality and productivity and to exercise effective production and cost control.
- IV. *TRADE SKILLS* : Ability to:
1. Devise and carry out production plans and methods.
 2. Advise on the method of calculating production costs.
 3. Monitor and compare production costs with estimated costs.
 4. Devise effective cost control system.
 5. Advise on plant layout, adjustments and modifications to improve productivity and quality standards.
 6. Control production activities in accordance with formulated plans and prescribed policies.
 7. Ensure that standard working methods in production processes are followed.
 8. Co-ordinate production facilities to optimise production and to meet delivery and quality requirements.
 9. Liaise with other departments and sections to meet company objectives.
 10. Develop and appraise the performance of subordinates.
 11. Determine training and manpower requirements.
 12. Determine wage systems and incentive schemes.
 13. Compile and present production reports.
 14. Diagnose and solve production problems.

15. Plan equipment requirements.
16. Maintain safe and good working conditions and harmonious labour relations.
17. Delegate authority.

V. *THEORY*

: Knowledge of:

1. Printing technology.
2. Production management.
3. Different printing processes and sequence of operations in printing production.
4. Computer applications.
5. Different types and properties of printing materials.
6. Different common paper sizes and substances such as the British, American and International Standard Organization paper sizes.
7. Different types of printing images, type faces and sizes.
8. Desktop publishing software.
9. Casting off and copy fitting.
10. Colour theory.
11. Work dummy preparation and imposition scheme.
12. Machine make-ready procedures.
13. Package, box and carton production.
14. Costing principles.
15. Transportation costs calculation.
16. Internationally recognised quality management systems such as ISO 9000, ISO 14000, Quality Circle, Total Quality Management.
17. Various printing quality control instruments.
18. Various testers of paper, ink, film and plate materials.

19. Human Resources Management.
20. Purchasing and tendering.
21. Sales and marketing.
22. Common commercial practices and business procedures.
23. Capabilities of major prepress, press and postpress equipment commonly adopted in the industry.
24. Financial management.
25. Plant layout and workflow.
26. Work study.
27. Inventory control.
28. Human relations.
29. Management information systems.
30. Company rules and regulations.
31. Management in environmental protection and waste disposal.
32. Industrial hazards and the necessary safety precautions.
33. Relevant Occupational Safety and Health Ordinance, Factories and Industrial Undertakings Ordinance and Apprenticeship Ordinance, as well as environmental legislations and intellectual property laws.

VI. *TRAINING*

: Must complete the following or equivalent to:

1. A relevant degree or Higher Diploma or equivalent course in printing plus a minimum of 2-year (for Degree holders) or 3-year (for Higher Diploma or equivalent holders) working experience in production planning and control in the printing field; or
2. A relevant Higher Certificate course in printing plus a minimum of 6-year working experience in production planning and control in the printing field, or a minimum of 3-year appropriate managerial experience in printing industry.
3. A minimum of 2-year on-the-job training in appropriate field.

- I. *JOB TITLE* : **QUALITY MANAGER**
- II. *JOB LEVEL* : TECHNOLOGIST / MANAGERIAL
- III. *JOB DESCRIPTION* : Plans, organizes, directs and controls quality control procedures in all stages of production to ensure incoming materials and products comply with required standards and specifications.
- IV. *TRADE SKILLS* : Ability to:
1. Formulate production technique and quality control policies and strategies to meet company overall objectives.
 2. Organize production technique and quality control activities, including human aspects and other quality control system.
 3. Control all production technique and quality control activities including cost of quality and budgeting, etc.
 4. Liaise with other departments and sections to meet company objectives.
 5. Identify specific quality control needs to meet customers' requirements.
 6. Keep abreast of latest developments in production and quality control techniques, equipment, etc.
 7. Liaise with customers and other departments.
 8. Formulate production and quality control specifications.
 9. Determine training and manpower requirements.
 10. Develop and appraise the performance of subordinate.
 11. Determine wage systems and incentive schemes.
 12. Maintain safe and good working conditions and harmonious labour relations.
 13. Delegate authority.

V. *THEORY*

: Knowledge of:

1. Printing technology.
2. Technological development in printing industry.
3. Principles of quality control including statistical methods, quality control technique, etc.
4. Principles and operation of printing machinery.
5. Testing and sampling, including principles and calibration of testing instruments and their operations.
6. Relation between preventive maintenance and quality control.
7. Organization of a printing factory.
8. Relation between cost effectiveness, quality standards and performance.
9. Standard working methods for each process.
10. Properties, qualities and standard of printing materials and products.
11. Fault diagnosis and rectification.
12. Company rules and regulations.
13. Management in environmental protection and waste disposal.
14. Industrial hazards and the necessary safety precautions.
15. Relevant Occupational Safety and Health Ordinance, Factories and Industrial Undertakings Ordinance and Apprenticeship Ordinance, as well as environmental legislations and intellectual property laws.

VI. *TRAINING*

: Must complete the following or equivalent to:

1. A relevant degree or Higher Diploma or equivalent course in printing plus a minimum of 2-year (for Degree holders) or 3-year (for Higher Diploma or equivalent holders) working experience in production planning and control in the printing field; or

2. A relevant Higher Certificate course in printing plus a minimum of 6-year working experience in production planning and control in the printing field, or a minimum of 3-year appropriate managerial experience in printing industry; and
3. A minimum of 2-year on-the-job training in appropriate field.

- I. *JOB TITLE* : **SALES/CUSTOMER SERVICES/
MARKETING MANAGER**
- II. *JOB LEVEL* : TECHNOLOGIST / MANAGERIAL
- III. *JOB DESCRIPTION* : Implements company sales and marketing plans. Supervises sales representatives/customer services representatives/ marketing executives. Manages and directs the sales/customer services/marketing department to explore new methods and techniques for increasing the sales turnover and profit margin.
- IV. *TRADE SKILLS* : Ability to:
1. Build a productive sales/customer services/marketing team.
 2. Develop goals and objectives for the staff.
 3. Conduct sales/customer services/marketing planning.
 4. Oversee time and territory management.
 5. Develop and qualify prospective customers, and choose appropriate accounts for the company.
 6. Monitor sales activities of individual accounts to fine-tune target markets.
 7. Monitor customer services to individual accounts to support sales volume.
 8. Monitor marketing activities for accounts to achieve target market share.
 9. Review emerging technology and market trends for the development of appropriate sales/customer services/ marketing strategies towards new sales and customers.
 10. Teach the staff to lever their product and process knowledge into closing the sale.
 11. Feed market information to the company and other departments for timely response to new needs.
 12. Delegate tasks, responsibilities and accountabilities.

13. Manage conflicts and resolve personal grievances.
14. Coordinate customer services.
15. Create incentive/bonus programs to motivate staff.
16. Understand personalities and behaviour styles of different kinds of people.
17. Match sales representatives/customer services representatives/marketing executives to the appropriate accounts.
18. Evaluate performance of subordinates and give recognition for outstanding effort.
19. Initiate disciplinary measures.
20. Manage territory effectively.
21. Manage time effectively.
22. Recognize loss of customers due to various reasons.
23. Educate and advise customers on prepress, press, and postpress issues.
24. Build effective presentations using sales aids and other visuals.
25. Administer effective promotion and advertising activities.
26. Build trust and relationship with customers.
27. Quote appropriate prices to customers.
28. Risk assessment and customer reputation investigation.

V. *THEORY*

: Knowledge of:

1. Sales/customer services/marketing processes.
2. Printing market characteristics such as market segments, supply and demand, competition, and seasonal pattern.
3. Printing costing and pricing structures.
4. Standard printing contract terms.
5. Common commercial practices and procedures.

6. Printing processes.
7. Printing equipment used.
8. Production workflow.
9. Customers' needs.
10. Communication, telephone and listening skills.
11. Motivation and dynamism of teamwork.
12. Negotiation strategies.
13. Time management skills.
14. Customer database.
15. Market analysis.
16. Computer applications.
17. Internationally recognised quality management systems such as ISO 9000, ISO 14000, Quality Circle, Total Quality Management.
18. Management information systems.
19. Company rules and regulations.
20. Management in environmental protection and waste disposal.
21. Industrial hazards and the necessary safety precautions.
22. Relevant Occupational Safety and Health Ordinance, Factories and Industrial Undertakings Ordinance and Apprenticeship Ordinance, as well as environmental legislations and intellectual property laws.

VI. *TRAINING*

: Must complete the following or equivalent to:

1. A degree or equivalent course in management studies, economics, marketing, printing or professional qualification; plus
2. A minimum of 2-year on-the-job training in the appropriate field; and
3. A minimum of 3-year appropriate managerial experience in the printing industry.

- I. *JOB TITLE* : **COST ESTIMATOR/SALES REPRESENTATIVE**
- II. *JOB LEVEL* : TECHNICIAN
- III. *JOB DESCRIPTION* : Prepares estimates of the cost of producing jobs according to agreed specifications and methods of production and maintains production records. Records actual costs incurred (materials and labour) of jobs completed or in progress; up-dates budget centre rates, labour rates and all variable cost factors regularly; prepares periodic financial statements to the management. Assists Sales/Customer Services/Marketing Manager in liaising with clients on the preparation of quotations and orders. Follows up clients orders, and promotes establishment's products and services.
- IV. *TRADE SKILLS* : Ability to:
1. Know characteristics of range of products produced.
 2. Analyse and feed back customers' buying needs.
 3. Reflect back to company customers' needs and sales trend.
 4. Interpret policies and instructions of management.
 5. Organize work routine and sales quota.
 6. Analyse sales figures.
 7. Use common instruments in printing estimation.
 8. Apply printing estimation software on computer.
 9. Understand the basic functions of printing equipment in workshop.
 10. Identify different types of printing materials.
 11. Identify different types and substances of papers.
 12. Identify different type of printing images, type faces and sizes.
 13. Maintain materials and production records including:
 - (i) Price lists of materials;

- (ii) List of suppliers of materials;
 - (iii) List of outwork contractors;
 - (iv) Plant register;
 - (v) Stock ledger;
 - (vi) Cost hourly rates;
 - (vii) Machine performance records;
 - (viii) Materials wastage.
14. Finalize specifications and evaluate the quality of artworks and colour originals.
 15. Independently draw up printing layout, copy preparation and technical planning.
 16. Calculate casting off and copy fitting.
 17. Calculate enlargement and reduction scales.
 18. Plan the most economical methods of production.
 19. Prepare work dummy and imposition scheme.
 20. Budget costs and hourly cost rates.
 21. Calculate job and transportation costs.
 22. Compare actual and budgeted costs.
 23. Evaluate equipment requirements.
 24. Draw up work schedule.
 25. Compile quotations based on estimates and company pricing strategy.
 26. Liaise with suppliers and clients.
 27. Liaise with other departments of the company in connection with the control, planning and scheduling of work-in-progress.

V. *TRADE THEORY* : Knowledge of:

1. Sales techniques.

2. Presentation skills.
3. Interpersonal skills.
4. Company sales policies and procedures.
5. General printing technology.
6. Estimating principles and printing terms.
7. Different printing processes and sequence of operations in printing production.
8. Computer applications.
9. Different types and properties of printing materials and their applications.
10. Different common paper sizes and substances such as the British, American and International Standard Organization paper sizes.
11. Copy preparation and technical planning.
12. Different types of printing images, type faces and sizes.
13. Desktop publishing software.
14. Casting off and copy fitting.
15. Colour theory.
16. Work dummy preparation and imposition scheme.
17. Machine make-ready procedures.
18. Package, box and carton production.
19. Costing principles.
20. Transportation costs calculation.
21. Management information systems.
22. Human resources management.
23. Purchasing and tendering.
24. Sales and marketing.
25. Common commercial practices and business procedures.

26. Company rules and regulations.
27. Management in environmental protection and waste disposal.
28. Industrial hazards and the necessary safety precautions.
29. Relevant Occupational Safety and Health Ordinance, Factories and Industrial Undertakings Ordinance and Apprenticeship Ordinance, as well as environmental legislations and intellectual property laws.

VI. *TRAINING*

: Must complete the following or equivalent to:

1. **Route 1**

- (i) Completion of Secondary 5 with Grade E or above in 5 subjects including English (Syllabus B) in HKCEE followed by 3-year organized technician apprenticeship, and
- (ii) Trainees are required to attend a relevant certificate course in printing at the Hong Kong Institute of Vocational Education on part-time mode during apprenticeship training.

2. **Route 2**

- (i) Successful completion of 1-year full-time technician foundation certificate course at the Printing Industry Training Centre followed by 2-year organized technician apprenticeship, and
- (ii) Trainees are required to attend a relevant certificate course in printing at the Hong Kong Institute of Vocational Education on part-time mode during apprenticeship training.

3. **Route 3**

Successful completion of a relevant 2-year full-time diploma course in printing and computer imaging at the Hong Kong Institute of Vocational Education followed by 1-year organized on-the-job training.

4. **Route 4**

Successful completion of craft apprenticeship in printing trade with further evening studies through a pre-technician course followed by a relevant technician course in printing and on-the-job experience.

- I. *JOB TITLE* : **PRODUCTION PLANNER/PRODUCTION CONTROLLER/CUSTOMER SERVICES CO-ORDINATOR**
- II. *JOB LEVEL* : TECHNICIAN
- III. *JOB DESCRIPTION* : Plans, schedules and controls workload making optimum use of all equipment, materials and labour throughout the factory. Co-ordinates with clients. Carries out process planning for jobs and estimates the time requirements for operations. Ensures that production schedules are met.
- IV. *TRADE SKILLS* : Ability to:
1. Use common and computerized measuring instruments in printing.
 2. Understand the basic functions of printing equipment in workshop.
 3. Identify different types of printing materials.
 4. Identify different types and substances of papers.
 5. Identify different types of printing images, type faces and sizes.
 6. Prepare complete working specifications.
 7. Plan methods of working.
 8. Draw up work instruction docketts.
 9. Monitor production progress.
 10. Assign workload to production cost centres.
 11. Prepare work dummy and imposition scheme.
 12. Evaluate the quality of artworks, colour originals and carry out files proof.
 13. Mark up copy with emphasis in layout preparation, use of type faces and sizes, format and design.

14. Forecast stock requirements for jobs.
15. Evaluate equipment requirements.
16. Allocate materials to the various productions departments.
17. Apply computers in production planning and control.
18. Place outwork orders.
19. Monitor materials and production records including:
 - (i) Price lists of materials;
 - (ii) List of suppliers of materials;
 - (iii) List of outwork contractors;
 - (iv) Plant register;
 - (v) Stock ledger;
 - (vi) Cost hourly rates;
 - (vii) Machine performance records;
 - (viii) Materials wastage.
20. Liaise with suppliers and clients.
21. Liaise with other departments of the company in connection with the control, planning and scheduling of work-in-progress.

V. *TRADE THEORY*

: Knowledge of:

1. General printing technology.
2. Production planning and control.
3. Different printing processes and sequence of operations in printing production.
4. Computer applications.
5. Different types and properties of printing materials and their applications.

6. Different common paper sizes and substances such as the British, American and International Standard Organization paper sizes.
7. Copy preparation and technical planning.
8. Different types of printing image, type faces and sizes.
9. Desktop publishing software.
10. Casting off and copy fitting.
11. Colour theory.
12. Work dummy preparation and imposition scheme.
13. Machine make-ready procedures.
14. Package, box and carton production.
15. Costing principles.
16. Purchasing and tendering.
17. Sales and marketing.
18. Common commercial practices and business procedures.
19. Capabilities of major prepress, press and post-press equipment commonly adopted by the industry.
20. Management information systems.
21. Human resources management.
22. Company rules and regulations.
23. Management in environmental protection and waste disposal.
24. Industrial hazards and necessary safety precautions.
25. Relevant Occupational Safety and Health Ordinance, Factories and Industrial Undertakings Ordinance and Apprenticeship Ordinance, as well as environmental legislations and intellectual property laws.

VI. TRAINING

: Must complete the following or equivalent to:

1. Route 1

- (i) Completion of Secondary 5 with Grade E or above in 5 subjects including English (Syllabus B) in HKCEE followed by 3-year organized technician apprenticeship, and
- (ii) Trainees are required to attend a relevant certificate course in printing at the Hong Kong Institute of Vocational Education on part-time mode during apprenticeship training.

2. Route 2

- (i) Successful completion of 1-year full-time technician foundation certificate course at the Printing Industry Training Centre followed by 2-year organized technician apprenticeship, and
- (ii) Trainees are required to attend a relevant certificate course in printing at the Hong Kong Institute of Vocational Education on part-time mode during apprenticeship training.

3. Route 3

Successful completion of a relevant 2-year full-time diploma course in printing and computer imaging at the Hong Kong Institute of Vocational Education followed by 1-year organized on-the-job training.

4. Route 4

Successful completion of craft apprenticeship in printing trade with further evening studies through a pre-technician course followed by a relevant technician course in printing and on-the-job experience.

- I. *JOB TITLE* : **OVERSEER/SUPERVISOR**
- II. *JOB LEVEL* : TECHNICIAN
- III. *JOB DESCRIPTION* : Controls, organises and oversees production in a production department.
- IV. *TRADE SKILLS* : Ability to:
1. Interpret and implement company's policies and regulations.
 2. Plan workshop layout.
 3. Control production activities in accordance with formulated plans and policies and prescribed standards and regulations.
 4. Arrange resources properly according to production requirements without disturbance to production.
 5. Supervise employees.
 6. Assess the capabilities of workers and machines so as to distribute the work to the best advantage.
 7. Allocate and schedule production work.
 8. Prepare reports, estimates and records.
 9. Inspect and maintain work place layout, equipment and tools.
 10. Carry out minor repairs and adjustments to machinery.
 11. Monitor progress of work and quality control to ensure compliance with specified work standards and time requirements.
 12. Liaise with other departments of the company in connection with the control, planning and scheduling of work-in-progress.
 13. Enforce safety precautions.

14. Develop performance targets and appraise the performance of subordinates.
15. Assist in formulating and appraising training and manpower requirements.
16. Maintain safe and good working conditions and harmonious labour relations.

V. *TRADE THEORY* : Knowledge of:

1. General printing technology.
2. Specific trade skills.
3. Production planning and control.
4. Different printing processes and sequence of operations in printing production.
5. Different types and properties of printing materials and their applications.
6. Different common paper sizes and substances such as the British, American and International Standard Organization paper sizes.
7. Work dummy preparation and imposition scheme.
8. Package, box and carton production.
9. Handling of chemical substances and disposal of chemical wastes.
10. Basic financial control.
11. Fire and industrial accident prevention measures.
12. Plant layout and workflow.
13. Work study.
14. Quality control.
15. Human relations.
16. Management information systems.
17. Human resources management.
18. Purchasing and tendering.

19. Company rules and regulations.
20. Management in environmental protection and waste disposal.
21. Industrial hazards and necessary safety precautions.
22. Relevant Occupational Safety and Health Ordinance, Factories and Industrial Undertakings Ordinance and Apprenticeship Ordinance, as well as environmental legislations and intellectual property laws.

VI. *TRAINING*

: Must complete the following or equivalent to:

1. 2-year on-the-job training as an assistant overseer/supervisor with attendance at a suitable supervisory course;
2. Assistant overseer/supervisor should have completed a craft apprenticeship in printing with at least 3-year relevant post-apprenticeship experience.

- I. *JOB TITLE* : **QUALITY CONTROLLER/QUALITY ASSURANCE OFFICER**
- II. *JOB LEVEL* : TECHNICIAN
- III. *JOB DESCRIPTION* : Ensures that materials of the correct quality are used, controls quality of printed work by measurement and statistical methods, and supervises final inspection.
- IV. *TRADE SKILLS* : Ability to:
1. Apply computers in quality control.
 2. Understand the basic functions of printing equipment in workshop.
 3. Identify different types of printing materials.
 4. Identify different types and substances of papers.
 5. Identify different types of printing images, type faces and sizes.
 6. Use common and computerized printing quality control instruments in inspection, measurement and testing of incoming goods, materials and production output.
 7. Maintain materials and product quality records including:
 - (i) Materials purchase contracts;
 - (ii) Outwork contracts;
 - (iii) Quality assurance/inspection reports;
 - (iv) Quality manual;
 - (v) Standards library;
 - (vi) Test report.

8. Carry out sampling inspection of incoming goods and materials, semi-processed products at all production stages, and finished products according to company's sampling scheme to ensure compliance with customers' specifications.
9. Carry out routine surveillance visits to suppliers and outwork contractors to ensure that they maintain the required quality standards.
10. Perform tests on paper and board for machine direction, grammage, thickness, opacity, dimensional stability, absorbency, smoothness, pick resistance, rub resistance, folding strength, burst strength, and pH value.
11. Perform tests on ink for viscosity, tack and colour.
12. Perform tests on film and plate for dot size and shape.
13. Measure defects to determine the acceptability of materials, semi-processed products and finished products.
14. Investigate into the causes of defects and suggest preventive and remedial measures.
15. Establish and review quality control procedures concerned with handling, inspection, safe keeping, protection, preservation, packaging, spoilage treatment, and transportation of incoming goods and production output.
16. Establish and review company's quality control system, sampling scheme and quality standards.
17. Maintain safe and good working conditions and harmonious labour relations.

V. *TRADE THEORY* : Knowledge of:

1. General printing knowledge.
2. Computer applications.
3. Internationally recognised quality management systems such as ISO 9000, ISO 14000, Quality Circle, Total Quality Management.
4. Sampling and statistical methods.

5. Different printing processes and sequence of operations in printing production.
6. Different types and properties of printing materials and their applications.
7. Different common paper sizes and substances such as the British, American and International Standard Organization paper sizes.
8. Different types of printing images, type faces and sizes.
9. Colour theory.
10. Various printing quality control instruments.
11. Various testers of paper, ink, film and plate.
12. Management information systems.
13. Human resources management.
14. Purchasing and tendering.
15. Company rules and regulations.
16. Management in environmental protection and waste disposal.
17. Industrial hazards and necessary safety precautions.
18. Relevant Occupational Safety and Health Ordinance, Factories and Industrial Undertakings Ordinance and Apprenticeship Ordinance, as well as environmental legislations and intellectual property laws.

VI. *TRAINING*

: Must complete the following or equivalent to:

1. **Route 1**

- (i) Completion of Secondary 5 with Grade E or above in 5 subjects including English (Syllabus B) in HKCEE followed by 3-year organized technician apprenticeship; and
- (ii) Trainees are required to attend a relevant certificate course in printing at the Hong Kong Institute of Vocational Education on part-time mode during apprenticeship training.

2. **Route 2**

- (i) Successful completion of 1-year full-time technician foundation certificate course at the Printing Industry Training Centre followed by 2-year organized technician apprenticeship; and
- (ii) Trainees are required to attend a relevant certificate course in printing at the Hong Kong Institute of Vocational Education on part-time mode during apprenticeship training.

3. **Route 3**

Successful completion of a relevant 2-year full-time diploma course in printing and computer imaging at the Hong Kong Institute of Vocational Education followed by 1-year organized on-the-job training.

4. **Route 4**

Successful completion of craft apprenticeship in printing trade with further evening studies through a pre-technician course followed by a relevant technician course in printing and on-the-job experience.

- I. *JOB TITLE* : **ELECTRONIC PREPRESS SYSTEM CRAFTSMAN**
- II. *JOB LEVEL* : CRAFTSMAN
- III. *JOB DESCRIPTION* : Inputs and processes data, edits text, manipulates black and white or colour images on desktop publishing computers; operates computer output devices such as laser printer or imagesetter or platesetter, etc.
- IV. *TRADE SKILLS* : Ability to:
1. Operate and maintain electronic prepress system including desktop publishing computer hardware and peripherals, desktop scanner, ink-jet or laser printer, digital proofer, imagesetter, film processor and/or platesetter, and other electronic output devices.
 2. Understand the basic functions of electronic prepress equipment.
 3. Identify different type fonts.
 4. Apply electronic prepress software skilfully.
 5. Use British, American, and Chinese type measurement systems.
 6. Identify different common paper sizes and substances.
 7. Mark proofs with standard proof-reader' s marks.
 8. Understand the uses and safety precautions of various electronic prepress output materials and processing chemicals.
 9. Interpret the company' s bookwork imposition schemes and working instructions.
 10. Prepare setting layouts.
 11. Input data, process and edit text, display and jobbing work.

12. Classify colour originals for reproduction.
13. Specify and scale reduction and enlargement of originals.
14. Identify gradations of tones.
15. Calculate and measure density range of originals.
16. Determine screen lines, dot shapes and screen angles for halftone work.
17. Manipulate colour images from RGB mode to CMYK(+) mode by using various colour management software.
18. Edit line, halftone, line and halftone combined, tinted, duotone and process colour images on computer terminals.
19. Preflight incoming digital files.
20. Correctly use various light-sensitive materials and processing chemicals.
21. Determine highlight, shadow, under colour removal, grey colour removal and unsharp masking data.
22. Page assembling through the application of computer software.
23. Produce colour proofs.
24. Process output by means of electronic output devices.
25. Archive and organize digital files for future uses.
26. Maintain safe and good working conditions and harmonious labour relations.

V. *TRADE THEORY* : Knowledge of:

1. Operational procedures of electronic prepress system including desktop publishing computer hardware and peripherals, desktop scanner, ink-jet or laser printer, digital proofer, imagesetter, film processor, and/or platesetter, etc.
2. The basic functions of electronic prepress and printing equipment.

3. Various Chinese characters computer input methods.
4. The methods of safe-keeping, use and applications of computer hardware and software.
5. Different type fonts, colour management and desktop publishing software.
6. Different common paper sizes and substances such as the British, American and International Standard Organization paper sizes.
7. Casting off and copy fitting.
8. Work dummy preparation and imposition scheme.
9. British, American and Chinese type measurement systems.
10. Standard proof reader' s marks.
11. Properties and materials safety information (data sheets) of various light-sensitive materials and processing chemicals.
12. Optical density measurement.
13. Tone gradations.
14. Preflight incoming digital files.
15. Screen lines, dot shapes, screen angles and stochastic screen.
16. Colour theory, colour reproduction and multi-colour printing principles.
17. Colour originals classification.
18. Under colour removal, grey colour removal and unsharp masking principles.
19. Reduction and enlargement calculations.
20. Digital file conversion.
21. Copy preparation and layouts setting.
22. Company rules and regulations.

23. Management in environmental protection and waste disposal.
24. Industrial hazards and necessary safety precautions.
25. Relevant Occupational Safety and Health Ordinance, Factories and Industrial Undertakings Ordinance and Apprenticeship Ordinance, as well as environmental legislations and intellectual property laws.

VI. *TRAINING*

- : 1. Type:

Route 1

2-year organized craft apprenticeship with attendance at a relevant part-time craft course after completing a 1-year full-time basic craft certificate course.

Route 2

3-year organized craft apprenticeship with attendance at a relevant part-time craft course.

2. Entry Requirements:

Completion of Secondary 3.

- I. *JOB TITLE* : **OFFSET LITHOGRAPHIC PLATEMAKER**
- II. *JOB LEVEL* : CRAFTSMAN
- III. *JOB DESCRIPTION* : Assembles film and produces offset plates for machine printing and/or operates computerised mask cutting system.
- IV. *TRADE SKILLS* : Ability to:
1. Operate and maintain graphic reproduction and platemaking equipment.
 2. Use film assembling hand tools and graphic reproduction instruments safely and correctly.
 3. Understand the basic functions of the graphic reproduction facilities.
 4. Correctly use various graphic reproduction and film assembling sundries.
 5. Correctly use various light-sensitive materials and pre-sensitized offset plates and their processing chemicals.
 6. Identify different common paper sizes and substances.
 7. Measure plate clamp and gripper margins of the offset printing machines.
 8. Interpret the company's bookwork imposition schemes and working instructions.
 9. Identify gradations of tones.
 10. Calculate and measure light density.
 11. Prepare layouts for bookwork and loose form with the provision of plate clamp and gripper allowance.
 12. Assemble negative or positive films for plate production with the assistance of register punches to achieve accurate registration.

13. Strip and assemble films.
14. Apply reference and register marks into the flats.
15. Prepare burn out masks.
16. Examine and correct negatives and positives prior to printing down to metal.
17. Test and determine the exposure time using step-wedge control.
18. Punch plates using plate punch.
19. Produce line and halftone combinations, and four-colour halftone plates using pre-sensitised plates.
20. Process step and repeat work on printing down frame.
21. Check for image quality using step-wedge, colour bar and other quality control devices.
22. Produce colour proofs.
23. Rectify platemaking faults.
24. Maintain safe and good working conditions and harmonious labour relations.

V. *TRADE THEORY*

: Knowledge of:

1. Operational procedures of graphic reproduction and platemaking equipment.
2. The basic functions of the graphic reproduction facilities.
3. Different common paper sizes and substances such as the British, American and International Standard Organization paper sizes.
4. Computer applications in graphic reproduction process.
5. Light and colour theory, colour reproduction and multi-colour printing principles.
6. Properties of various light-sensitive materials and processing chemicals.

7. Work dummy preparation and imposition scheme.
8. Light density measurement.
9. Tone gradations.
10. Screen lines, dot shapes and screen angles.
11. Film assembly.
12. Plate defects rectification methods.
13. Company rules and regulations.
14. Management in environmental protection and waste disposal.
15. Industrial hazards and necessary safety precautions.
16. Relevant Occupational Safety and Health Ordinance, Factories and Industrial Undertakings Ordinance and Apprenticeship Ordinance, as well as environmental legislations and intellectual property laws.

VI. *TRAINING*

- : 1. Type:

Route 1

2-year organized craft apprenticeship with attendance at a relevant part-time craft course after completing a 1-year full-time basic craft certificate course.

Route 2

3-year organized craft apprenticeship with attendance at a relevant part-time craft course.

2. Entry Requirements:

Completion of Secondary 3.

- I. *JOB TITLE* : **DIGITAL PRINTING SYSTEM CRAFTSMAN**
- II. *JOB LEVEL* : CRAFTSMAN
- III. *JOB DESCRIPTION* : Inputs and processes data, edits text, manipulates black and white or colour images on desktop publishing computers; sets up and operates digital printing system.
- IV. *TRADE SKILLS* : Ability to:
1. Operate and maintain on-line electronic prepress and printing system including desktop publishing computer hardware and peripherals, desktop scanner, digital printing device, etc.
 2. Understand the basic functions of electronic prepress equipment and digital printing system.
 3. Identify different type fonts.
 4. Apply electronic prepress software skilfully.
 5. Use British, American, and Chinese type measurement systems.
 6. Identify different common paper sizes and substances.
 7. Mark proofs with standard proof-reader's marks.
 8. Understand the uses and safety precautions of various electronic prepress output materials.
 9. Interpret the company's bookwork imposition schemes and working instructions.
 10. Input data, process and edit text, display and jobbing work.
 11. Manipulate colour images from RGB mode to CMYK(+) mode by using various colour management software.
 12. Edit line, halftone, line and halftone combined, tinted, duotone and process colour images on computer terminals.

13. Preflight incoming digital files.
14. Page assembling through the application of computer software.
15. Process output by means of digital printing devices.
16. Archive and organize digital files for future uses.
17. Identify different printing faults and remedies.
18. Maintain safe and good working conditions and harmonious labour relations.

V. *TRADE THEORY*

: Knowledge of:

1. Operational procedures of electronic prepress and printing system including desktop publishing computer hardware and peripherals, desktop scanner and digital printing device, etc.
2. The basic functions of electronic prepress and printing equipment.
3. Various Chinese characters computer input methods.
4. The methods of safe-keeping, use and applications of computer hardware and software.
5. Different type fonts, colour management and desktop publishing software.
6. Different common paper sizes and substances such as the British, American and International Standard Organization paper sizes.
7. Work dummy preparation and imposition scheme.
8. British, American and Chinese type measurement systems.
9. Standard proof reader's marks.
10. Preflight incoming digital files.
11. Colour theory.
12. Reduction and enlargement calculations.
13. Digital file conversion.

14. Copy preparation and layouts setting.
15. Company rules and regulations.
16. Management in environmental protection and waste disposal.
17. Industrial hazards and necessary safety precautions.
18. Relevant Occupational Safety and Health Ordinance, Factories and Industrial Undertakings Ordinance and Apprenticeship Ordinance, as well as environmental legislations and intellectual property laws.

VI. *TRAINING*

- : 1. Type:

Route 1

2-year organized craft apprenticeship with attendance at a relevant part-time craft course after completing a 1-year full-time basic craft certificate course.

Route 2

3-year organized craft apprenticeship with attendance at a relevant part-time craft course.

2. Entry Requirements:

Completion of Secondary 3.

- I. *JOB TITLE* : **LABEL PRINTING MACHINE OPERATOR (RELIEF PROCESS)**
- II. *JOB LEVEL* : CRAFTSMAN
- III. *JOB DESCRIPTION* : Sets up and operates web-fed/sheet-fed relief process label printing machines.
- IV. *TRADE SKILLS* : Ability to:
1. Operate and maintain relief process label printing machines.
 2. Use hand composing, imposing and relief process label machine printing tools safely and correctly.
 3. Understand the basic functions of the relief process label printing machines.
 4. Identify properties of different printing substrates.
 5. Interpret and draw up the company's imposition/folding schemes and working instructions.
 6. Mount and impose relief plates on machine.
 7. Mix inks and match colours.
 8. Use quality control and register devices, optical measuring instruments and ruling-up table.
 9. Identify different printing faults and remedies.
 10. Set die cutting, creasing, numbering, embossing, hot blocking and perforating formes.
 11. Carry out machine make-ready including:
 - (i) Positioning up;
 - (ii) Setting unwinder, rewinder and sheeter mechanism;

- (iii) Inking up machine;
 - (iv) Adjusting register;
 - (v) Loading substrate;
 - (vi) Setting drying and laminating mechanisms;
 - (vii) Setting waste matrix rewinder;
 - (viii) Preparing overlays, interlays or underlays;
 - (ix) Adjusting impression pressure;
 - (x) Checking quality of prints and rectifying defects.
12. Perform die cutting, creasing, numbering, embossing, hot blocking, and perforating operations on relief process label printing machines.
 13. Run different types of polymer films and metal foils, and self-adhesive papers on relief process label printing machines.
 14. Print line, solid, halftone, screen-tint, close register, multi-colour, process colour and duotone jobs on relief process label printing machines.
 15. Wash-up machine.
 16. Maintain safe and good working conditions and harmonious labour relations.

V. *TRADE THEORY*

: Knowledge of:

1. Operational procedures of relief process label printing machines.
2. The basic functions of relief process label printing machines.
3. Different common paper sizes and substances such as the British, American and International Standard Organization paper sizes.
4. Properties of polymer films and metal foils, self-adhesive papers, paper and ink.

5. General make-ready procedures on relief process label printing machines.
6. Colour theory and multi-colour principle.
7. Ink mixing and colour matching.
8. Imposition schemes.
9. Different printing faults and their remedies.
10. Different types of relief printing plates.
11. Computer applications in control of relief process label printing machines operations.
12. Company rules and regulations.
13. Management in environmental protection and waste disposal.
14. Industrial hazards and necessary safety precautions.
15. Relevant Occupational Safety and Health Ordinance, Factories and Industrial Undertakings Ordinance and Apprenticeship Ordinance, as well as environmental legislations and intellectual property laws.

VI. *TRAINING*

- : 1. Type:

Route 1

2-year organized craft apprenticeship with attendance at a relevant part-time craft course after completing a 1-year full-time basic craft certificate course.

Route 2

3-year organized craft apprenticeship with attendance at a relevant part-time craft course.

2. Entry Requirements:

Completion of Secondary 3.

- I. *JOB TITLE* : **PRINTING AND POSTPRESS PROCESSING CRAFTSMAN**
- II. *JOB LEVEL* : CRAFTSMAN
- III. *JOB DESCRIPTION* : Sets up and operates sheet or web-fed offset printing machines, and various fundamental print finishing equipment and carries out basic hand binding operations.
- IV. *TRADE SKILLS* : Ability to:
1. Operate and maintain platemakers and offset printing machines.
 2. Use platemaking and offset machine printing tools and accessories safely and correctly.
 3. Understand the basic functions of platemaking equipment and offset printing machines.
 4. Identify different paper sizes and substances.
 5. Interpret and draw up the company's imposition/ folding schemes and working instructions.
 6. Mix inks and match colours.
 7. Use quality control and register devices, optical measuring instruments and ruling-up table.
 8. Handle papers including fanning, knocking, counting, and stacking piles of sheets.
 9. Identify different printing faults and remedies.
 10. Understand the use and application of pre-sensitised offset plates and processing chemicals.
 11. Punch unexposed plates using plate punch.
 12. Test and determine the exposure time using step-wedge control.
 13. Produce line and halftone combinations, and 4-process colour half-tone plates using pre-sensitised plates.

14. Check for image quality of processed pre-sensitised plates using step-wedge control, colour bar and other quality control devices.
15. Rectify platemaking faults.
16. Carry out machine make-ready including:
 - (i) Setting feeders, grippers, dampening unit, inking unit, and sheet transfer mechanism;
 - (ii) Mounting plate and packing sheet on plate cylinder with the aid of register punches;
 - (iii) Mounting rubber blanket and packing sheet on blanket cylinder;
 - (iv) Adjusting front lays, side lays and register;
 - (v) Loading paper on feeder;
 - (vi) Adjusting lateral and circumferential control;
 - (vii) Setting anti-setoff sprays;
 - (viii) Running test sheets;
 - (ix) Ruling-up sheets, checking for quality of prints under standard illumination, and rectifying defects.
17. Print line, solid, halftone, screen-tint, close register, multi-colour, process colour and duotone jobs on offset printing machines.
18. Perform numbering and perforating operations on offset printing machines.
19. Carry out perfecting and simultaneous multi-colour printing on multi-colour and convertible offset presses.
20. Run different types of paper and board on offset printing machines.
21. Wash-up machine.
22. Gum-up plates for future reprints.
23. Operate and maintain print finishing machines.

24. Use hand and power operated print finishing machine tools.
25. Understand the basic functions of the print finishing machines.
26. Correctly use various bookbinding materials.
27. Handle and mount metal blocks for hot blocking.
28. Perform basic hand binding skills including gluing, padding, laminating, lining, mounting, simple box-making, folding, inseting and wrapping.
29. Perform packing and warehousing of finished products.
30. Maintain safe and good working conditions and harmonious labour relations.

V. *TRADE THEORY* : Knowledge of:

1. Operational procedures of platemakers and offset printing machines.
2. The basic functions of platemaking equipment and offset printing machines.
3. Light and colour theory and multi-colour printing principles.
4. Different common paper sizes and substances such as the British, American and International Standard Organization paper sizes.
5. Computer applications in print control systems.
6. Work dummy preparation and imposition/folding scheme.
7. Optical density measurement.
8. Ink mixing and colour matching.
9. Properties of paper, fountain solution, rubber blanket and ink.

10. General make-ready procedures on offset printing machines.
11. Paper handling techniques including fanning, knocking, counting, and stacking piles of sheets.
12. Use and application of pre-sensitised offset plates and processing chemicals.
13. Different printing faults and their remedies.
14. Techniques of work and back (sheetwork), work and turn (half-sheet work), work and twist, and work and tumble printing.
15. Platemaking defects rectification methods.
16. Operational procedures of print finishing machines.
17. The basic functions of print finishing machines.
18. Properties of various bookbinding materials and hot stamping blocks.
19. General make-ready procedures on print finishing machines.
20. Different bookbinding faults and their remedies.
21. Quality control of finished products.
22. Knowledge of International Cooperation for Integration of Prepress, Press and Postpress (CIP3).
23. Company rules and regulations.
24. Management in environmental protection and waste disposal.
25. Industrial hazards and necessary safety precautions.
26. Relevant Occupational Safety and Health Ordinance, Factories and Industrial Undertakings Ordinance and Apprenticeship Ordinance, as well as environmental legislations and intellectual property laws.

VI. *TRAINING*

: 1. Type:

Route 1

2-year organized craft apprenticeship with attendance at a relevant part-time craft course after completing a 1-year full-time basic craft certificate course.

Route 2

3-year organized craft apprenticeship with attendance at a relevant part-time craft course.

2. Entry Requirements:

Completion of Secondary 3.

- I. **職稱** : 廠長
- II. **技能等級** : 技師 / 管理
- III. **工作說明** : 協助僱主策劃、預算、指導及管控公司各項工作，包括監控公司的一切運作，以確保高度生產效率及符合經濟原則。
- IV. **行業技能** : 具備下列技能：
1. 擬訂廠內財務和一般政策，並就生產成本管理計劃提供意見。
 2. 根據既定的政策、標準及規則，管理廠內一切事項。
 3. 籌劃各項生產設施，盡量提高產量，符合付貨日期及品質要求。
 4. 發展和維持有效率的組織架構。
 5. 策劃和有效運用人力、設備、物料、財政及其他資源。
 6. 制訂訓練及人力需求。
 7. 制訂薪酬制度及獎勵計劃。
 8. 提高和評估屬下的工作表現。
 9. 按現有資源適當發展和策劃生產系統及方法。
 10. 籌劃和組織有關研究及開發的方案。

11. 維持安全和良好的工作環境，以及和諧的勞資關係。
12. 與外界如政府部門及商界等聯繫。
13. 權力下放。

V. 行業理論 : 具有下列知識 :

1. 印刷技術及製造。
2. 工廠行政、公共關係及市場銷售。
3. 生產系統的設計。
4. 印刷廠的組織。
5. 生產成本分析。
6. 成本效益、品質標準與生產效率三者的關係。
7. 統計分析方法。
8. 研究及發展。
9. 勞資關係。
10. 電腦應用。
11. 公司規例及規則。
12. 環保及排污管理。
13. 工業危險及所需安全措施。
14. 有關的職業安全及健康條例，工廠及工業經營條例和學徒條例，以及知識產權法例和環保法例。

VI. 訓練

: 須完成下列或相等程度的項目：

1. 印刷學的相關學位課程，或同等學歷。
2. 最少為期兩年有關行業的在職訓練，及
3. 最少五年業內有關管理經驗或七年（適用於高級文憑或同等學歷持有人）印刷生產策劃及控制的工作經驗。

I. 職 稱： 生產經理

II. 技能等級： 技師 管理

III. 工作說明： 策劃和推行印刷生產系統；主管生產運作；管理和指導生產部門人員，以保持品質及生產力，並控制生產及成本。

IV. 行業技能： 具備下列技能：

1. 策劃和推行生產計劃及方法。
2. 就生產成本計算方法提出意見。
3. 監察生產成本，並與預算成本比較。
4. 制定有效的成本控制系統。
5. 就廠房佈置、調動、改裝提出意見，以提高生產力及質素。
6. 按既定計劃及政策，控制生產工作。
7. 確保採用標準生產方法。
8. 統籌各項生產設施，盡量提高產量，符合付貨日期及品質要求。
9. 與其他部門聯繫，以達到公司的目標。
10. 提高和評估下屬的工作表現。
11. 制定訓練及人力需求。
12. 制定薪酬制度及獎勵計劃。
13. 編製及提交生產報告。

14. 找出和解決生產問題。
15. 策劃設備需求。
16. 維持安全和良好的工作環境，以及和諧的勞資關係。
17. 權力下放。

V. 行業理論：具備下列知識：

1. 印刷技術。
2. 生產管理。
3. 不同的印刷方法及工作程序。
4. 電腦應用。
5. 不同種類、特性的印刷材料。
6. 不同尺度及基重的紙張，包括英、美及國際標準組織紙度。
7. 各種印刷圖像、字款及字體大小。
8. 電腦排版軟件。
9. 計算版數及配稿。
10. 顏色理論。
11. 製備工作樣本及埋版規則。
12. 校機程序。
13. 生產包裝盒、紙盒及瓦通盒方法。
14. 成本計算原理。
15. 運輸成本的計算。
16. ISO 9000、ISO 14000、品質圈、全面品質管理等國際認可品質管理系統。

17. 各類印刷品質控制器材。
18. 各類紙張、油墨、軟片、印版物料測試儀器。
19. 人力資源管理。
20. 採購及投標。
21. 業務及市場推廣。
22. 行內做法及程序。
23. 業內常用印前、印刷及印後設備的功能。
24. 財務管理。
25. 廠房佈置及工作流程。
26. 工作研究。
27. 物料控制。
28. 人際關係。
29. 管理資訊系統。
30. 公司規例及規則。
31. 環保及排污管理。
32. 工業危險及所需安全措施。
33. 有關的職業安全及健康條例，工廠及工業經營條例和學徒條例，以及知識產權法例和環保法例。

VI. 訓練：

須完成下列或相等程度的項目：

1. 有關的印刷學位、高級文憑或同等程度課程，並有最少兩年（適用於學位持有人），或最少三年（適用於高級文憑或同等學歷持有人）印刷生產策劃及控制的工作經驗；或

2. 有關的印刷高級證書課程，並有最少六年印刷生產策劃及控制的工作經驗，或最少三年業內有關管理經驗。
3. 最少為期二年有關行業的在職訓練。

- I. **職稱** : 品質經理
- II. **技能等級** : 技師 / 管理
- III. **工作說明** : 策劃、編排、指導及控制各生產階段的品質控制程序，確保入廠的原料及產品符合既定標準及規格。
- IV. **行業技能** : 具備下列技能：
1. 制訂生產技術及品質控制方針與策略，以達到公司的整體目標。
 2. 籌劃生產技術及品質控制的工作，包括人事及其他品質控制系統等事宜。
 3. 管理一切有關生產技術及品質的工作，包括品質成本及財政預算等。
 4. 與其他部門聯絡，以達到公司的目標。
 5. 認清具體的品管要求，以符合客戶需求。
 6. 認識生產和品質控制技術及設備的最新發展。
 7. 與客戶及其他部門聯繫。
 8. 制訂生產及品質控制的規格。
 9. 制訂訓練及人力需求。
 10. 提高及評估下屬的工作表現。
 11. 制訂薪酬制度及獎勵計劃。

12. 維持安全和良好的工作環境，以及和諧的勞資關係。
13. 權力下放。

V. 行業理論：具有下列知識：

1. 印刷技術。
2. 印刷業的技術發展。
3. 品質控制原理，包括統計分析方法及品質控制技術等。
4. 印刷機械的原理及操作。
5. 印刷品試驗與抽樣，包括各類測試儀器的原理、校準法及操作。
6. 機器預防保養與品質控制的關係
7. 印刷廠的組織。
8. 成本效益、品質標準與生產效率三者的關係。
9. 每項生產程序的標準工作方法。
10. 印刷原料及成品的性質、品質及標準。
11. 錯誤的診斷與改正。
12. 公司規例及規則。
13. 環保及排污管理。
14. 工業危險及所須安全措施。

15. 有關的職業安全及健康條例，工廠及工業經營條例和學徒條例，以及知識產權法例和環保法例。

VI. 訓練

：須完成下列或相等程度的項目：

1. 有關的印刷學位、高級文憑或同等程度課程，並有最少兩年（適用於學位持有人），或最少三年（適用於高級文憑或同等學歷持有人）印刷生產策劃及控制經驗；或
2. 有關的印刷高級證書課程，並有最少四年印刷生產策劃及控制經驗，或最少三年業內有關管理經驗。
3. 最少為期兩年有關行業的在職訓練。

- I. **職稱** : 營業 / 客戶服務 / 市場推廣經理
- II. **技能等級** : 技師 / 管理
- III. **工作說明** : 推行機構營業及市場推廣計劃；督導營業代表 / 客戶服務代表 / 市場推廣人員；管理及指導營業 / 客戶服務 / 市場推廣部門研究新方法及技巧，以增加營業額及邊際利潤。
- IV. **行業技能** : 具備下列技能：
1. 建立高效能的營業 / 客戶服務 / 市場推廣隊伍。
 2. 為員工制訂目標。
 3. 推行營業 / 客戶服務 / 市場推廣計劃。
 4. 監督時間及地區管理。
 5. 拓展客源及揀選合適的客戶。
 6. 監察對個別客戶的營銷活動，以便調整目標市場的定位。
 7. 監察為個別客戶所提供的服務，以保持銷量。
 8. 監察對客戶所進行的市場推廣活動，以便達到預定的市場佔有率。
 9. 檢討新興科技及市場趨勢，以發展合適的營業 / 客戶服務 / 市場推廣策略，拓展銷量及客源。

10. 教導員工借助本身對產品及工序的知識來達成交易。
11. 為機構及其他部門提供市場資訊，以配合最新需要。
12. 向下屬授予權責。
13. 處理糾紛及解決個人不滿。
14. 統籌客戶服務。
15. 制訂獎勵 / 獎金制度，以激勵員工。
16. 了解各類人的性格及處事方式。
17. 為營業代表 / 客戶服務代表 / 市場推廣人員分配合適的客戶。
18. 評核下屬表現及表揚員工傑出表現。
19. 制訂紀律措施。
20. 有效管理所屬分區。
21. 有效管理時間。
22. 分析各種流失客戶的原因。
23. 向客戶講解和建議有關印前、印刷及印後事宜。
24. 利用銷售輔助工具及其他圖像進行有效的圖文講解。
25. 推行有效的推廣及廣告活動。
26. 與客戶建立互信關係。

27. 向客戶適當報價。
28. 風險評估及客戶信用調查。

V. 行業理論：具有下列知識：

1. 營業 / 客戶服務 / 市場推廣程序。
2. 印刷市場特點，如市場的劃分、供求、競爭、旺淡季等。
3. 印刷成本計算及定價。
4. 標準印刷合約條款。
5. 行內做法及程序。
6. 印刷過程。
7. 所用的印刷設備。
8. 生產工作流程。
9. 客戶要求。
10. 溝通、電話及聆聽技巧。
11. 對團隊工作的推動力。
12. 談判策略。
13. 時間管理技巧。
14. 客戶資料庫。
15. 市場分析。
16. 電腦應用。

17. 質素管理制度，如 ISO 9000，ISO 14000，品質圈、全面品質管理等國際認可品質管理系統。
18. 管理資訊系統。
19. 公司規例及規則。
20. 環保及排污管理。
21. 工業危險及所須安全措施。
22. 有關的職業安全及健康條例，工廠及工業經營條例和學徒條例，以及知識產權法例和環保法例。

VI. 訓練

：須完成下列或相等程度的項目：

1. 有關的管理、經濟、市場、印刷學位或同等程度課程或專業資格；
2. 最少為期兩年有關行業的在職訓練；及
3. 最少三年在業內有關管理經驗。

I. 職 稱：印刷估價員 營業代表

II. 技能等級：技術員

III. 工作說明：按照議定的規格及生產方法，估計印件成本，保存生產記錄；記錄已完成或製作中的印件所需的實際成本（材料及工資）；定期修訂成本單位預算、工資率及各變動成本因素；為廠方編製週期財務決算表，協助營業客戶服務市場推廣經理與客戶聯繫有關報價及訂單事宜，以及推銷公司產品及服務。

IV. 行業技能：具備下列技能：

1. 認識所生產的一系列貨品的特性。
2. 分析及反映顧客需求。
3. 向公司反映顧客需求及營銷趨勢。
4. 闡釋管理階層的政策及指示。
5. 安排日常工作及定出銷售額。
6. 分析銷售數字。
7. 使用常規的印刷估價儀器。
8. 應用印刷估價電腦軟件。
9. 了解工場印刷設備的基本功能。
10. 識別不同種類的印刷材料。
11. 識別各種紙張的種類及基重。
12. 識別不同的印刷圖像、字款及字體大小。

13. 保存材料及生產記錄，包括：
 - (i) 材料價目表；
 - (ii) 材料供應商資料；
 - (iii) 外發工作承辦商資料；
 - (iv) 機器登記冊；
 - (v) 存貨分類帳；
 - (vi) 每小時成本率；
 - (vii) 機器效率記錄；
 - (viii) 材料損耗量。
14. 總結工程規格，評估正稿及彩色原稿的品質。
15. 獨立草擬印刷版樣、整理原稿及進行技術策劃。
16. 計算版數及配稿。
17. 計算縮放比例。
18. 計劃最合乎經濟效益的生產方法。
19. 製備工作樣本及埋版方法。
20. 預算成本及每小時成本率。
21. 計算印件及運輸成本。
22. 比較實際及預算成本。
23. 評估設備需求。
24. 定出工程時間表。
25. 根據估價及公司定價方針計算報價。
26. 與供應商及客戶聯繫。
27. 與公司內各部門保持聯繫，以控制、策劃印件製作及編定進度表。

V. 行業理論：具備下列知識：

1. 銷售技巧。
2. 表達技巧。
3. 人際關係技巧。
4. 公司的營銷政策及程序。
5. 基本印刷技術。
6. 估價原理及印刷術語。
7. 各項印刷品的生產方法及工作程序。
8. 電腦應用。
9. 不同種類、特性的印刷材料及其用途。
10. 不同尺度及基重的紙張，包括英、美及國際標準組織紙度。
11. 原稿整理及技術策劃。
12. 各種印刷圖像、字款及字體大小。
13. 電腦排版軟件。
14. 計算版數及配稿。
15. 顏色理論。
16. 製備工作樣本及埋版方法。
17. 校機程序。
18. 生產包裝盒、紙盒及瓦通盒方法。
19. 成本計算原理。
20. 運輸成本的計算。
21. 管理資訊系統。
22. 人力資源管理。
23. 採購及投標。
24. 業務及市場推廣。
25. 行內做法及程序。

26. 公司例及規則。
27. 環保及排污管理。
28. 工業危險及所須安全措施。
29. 有關的職業安全及健康條例，工廠及工業經營條例和學徒條例，以及知識產權法例和環保法例。

VI. 訓練：

須完成下列或相等程度的項目：

1. 途徑一

- (i) 修畢中五，並在香港中學會考取得五科 E 級或以上成績，其中須包括英文科（課程乙），然後接受三年有系統的技術員學徒訓練；以及
- (ii) 學員接受學徒訓練期間，須在香港專業教育學院修讀有關的部分時間制印刷證書課程。

2. 途徑二

- (i) 在印刷業訓練中心修畢一年全日制技術員基礎證書課程，然後接受兩年有系統的技術員學徒訓練；以及
- (ii) 學員接受學徒訓練期間，須在香港專業教育學院修讀有的部分時間制印刷證書課程。

3. 途徑三

在香港專業教育學院修畢兩年全日制印刷及電腦圖像文憑課程，然後接受一年有系統的在職訓練。

4. 途徑四

完成印刷技工學徒訓練，繼而進修夜學制技術員預修課程，然後修讀有關的印刷技術員課程，另加工作經驗。

I. 職 稱： 生產策劃員 / 生產管制員 / 客戶服務統籌員

II. 技能等級： 技術員

III. 工作說明： 充份及有效利用工廠所有設備、材料及人力，以計劃及控制工作量，並制訂工作程序表，與客戶保持聯繫。估計每項職務的工作程序，計劃每個程序所需時間，並確保生產工作依期完成。

IV. 行業技能： 具備下列技能：

1. 使用常規和電腦化的印刷測量儀器。
2. 了解工場印刷設備的基本功能。
3. 識別不同種類的印刷材料。
4. 識別不同紙張的種類及基重。
5. 識別不同種類的印刷圖像、字款及字體大小。
6. 製備印件的整個工程規格。
7. 策劃製作方法。
8. 定出工作指示摘要。
9. 監察生產進度。
10. 分配印件予生產成本中心。
11. 製備工作樣本及埋版方法。
12. 評估正稿，彩色原稿的品質及核對檔案來稿。
13. 在原稿標註排版要求，特別是版樣的製作，字款和字體的大小、格式及設計。

14. 預算工程所需材料。
15. 評估設備需求。
16. 分配材料給各生產部門。
17. 應用電腦進行生產策劃及控制。
18. 發出外發工作單。
19. 保存材料及生產記錄，包括：
 - (i) 材料價目表；
 - (ii) 材料供應商資料；
 - (iii) 外發工作承辦商資料；
 - (iv) 機器登記冊；
 - (v) 存貨分類帳；
 - (vi) 每小時成本率；
 - (vii) 機器效率記錄；
 - (viii) 材料損耗量。
20. 與供應商及客戶聯繫。
21. 與公司內各部門保持聯繫，以控制、策劃印件製作及編定進度表。

V. 行業理論：具備下列知識：

1. 基本印刷技術。
2. 生產策劃及控制。
3. 各項印刷品的生產方法及工作程序。
4. 電腦應用。
5. 不同種類、特性的印刷材料及其用途。
6. 不同尺度及基重的紙張，包括英、美及國際標準組織紙度。

7. 原稿整理及技術策劃。
8. 各種印刷圖像、字款及字體大小。
9. 電腦排版軟件。
10. 計算版數及配稿。
11. 顏色理論。
12. 製備工作樣本及埋版方法。
13. 校機程序。
14. 生產包裝盒、紙盒及瓦通盒方法。
15. 成本計算原理。
16. 採購及投標。
17. 業務及市場推廣。
18. 行內做法及程序。
19. 印刷業普遍採用的印前、印刷及印後設備的功能。
20. 管理資訊系統。
21. 人力資源管理。
22. 公司規例及規則。
23. 工業危險及所須安全措施。
24. 環保及排污管理。
25. 有關的職業安全及健康條例，工廠及工業經營條例和學徒條例，以及知識產權法例和環保法例。

VI. 訓練： 須完成下列或相等程度的項目：

1. 途徑一

- (i) 修畢中五，並在香港中學會考取得五科 E 級或以上成績，其中須包括英文科(課程乙)，然後接受三年有系統的技術員學徒訓練；以及
- (ii) 學員接受學徒訓練期間，須在香港專業教育學院修讀有關的部份時間制印刷證書課程。

2. 途徑二

- (i) 在印刷業訓練中心修畢一年全日制技術員基礎證書課程，然後接受兩年有系統的技術員學徒訓練；以及
- (ii) 學員接受學徒訓練期間，須在香港專業教育學院修讀有關的部份時間制印刷證書課程。

3. 途徑三

在香港專業教育學院修畢兩年全日制印刷及電腦圖像文憑課程，然後接受一年有系統的在職訓練。

4. 途徑四

完成印刷技工學徒訓練，繼而進修夜學制技術員預修課程，然後修讀有關的印刷技術員課程，另加工作經驗。

I. 職 稱： 督 導 員 / 管 理 員

II. 技能等級： 技術員

III. 工作說明： 控制、組織及管理生產部門的工作。

IV. 行業技能： 具備下列技能：

1. 了解和執行公司政策及規則。
2. 策劃工場佈置。
3. 根據既定計劃及政策、各項標準及規定，控制生產工作。
4. 在不影響生產進行的情況下，按生產要求適當地分配資源。
5. 督導員工。
6. 評估員工能力及機器的使用性能，以便適當地分配工作。
7. 分配及編排工作。
8. 製備報告、估價表及記錄。
9. 檢查及保養工場佈置、設備及工具。
10. 調校機器，並進行簡單的維修工作。
11. 監察工作進度及品質控制，以確保符合工作標準及時間要求。
12. 與公司內各部門保持聯繫，以控制、策劃印件製作及編定進度表。
13. 執行安全措施。

14. 定出績效指標，並考核下屬工作表現。
15. 協助制定、評估人力及訓練需求。
16. 維持安全和良好的工作環境，以及和諧的勞資關係。

V. 行業理論：具備下列知識：

1. 基本印刷技術。
2. 專門行業技能。
3. 生產策劃及控制。
4. 各項印刷品的生產方法及操作程序。
5. 不同種類、特性的印刷材料及其用途。
6. 不同尺度及基重的紙張，包括英、美及國際標準組織紙度。
7. 製備工作樣本及埋版方法。
8. 生產包裝盒、紙盒及瓦通盒方法。
9. 化學物料及化學廢物的處理方法。
10. 基本財務控制。
11. 防火措施及工業意外的預防方法。
12. 廠房佈置及工作流量。
13. 工作研究。
14. 品質控制。
15. 人際關係。
16. 管理資訊系統。
17. 人力資源管理。
18. 採購及投標。
19. 公司規例及規則。

20. 環保及排污管理。
21. 工業危險及所須安全措施。
22. 有關的職業安全及健康條例，工廠及工業經營條例和學徒條例，以及知識產權法例和環保法例。

VI. 訓練： 須完成下列或相等程度的項目：

1. 兩年助理督導員 管理員在職訓練及修讀一項合適的管理課程；
2. 助理督導員 / 管理員須完成印刷技工學徒訓練，並具最少三年受訓後的有關工作經驗。

I. 職 稱： 品質控制員 品質管制主任

II. 技能等級： 技術員

III. 工作說明： 確保用料正確；利用量度及統計方法控制印刷品質，並督導最後階段的檢查工作。

IV. 行業技能： 具備下列技能：

1. 應用電腦進行品質控制。
2. 了解工場印刷設備的基本功能。
3. 識別不同種類的印刷材料。
4. 識別不同紙張的種類及基重。
5. 識別不同種類的印刷圖像、字款及字體大小。
6. 使用常規和電腦化的印刷品質控制儀器，以檢測來貨、來料及產品質素。
7. 保存材料及產品品質記錄，包括：
 - (i) 材料採購合約；
 - (ii) 外發工作合約；
 - (iii) 品質保證 / 檢查報告；
 - (vi) 品質手冊；
 - (vii) 品質標準資料庫；
 - (viii) 測試報告。
8. 依照公司的抽樣檢查法，對來貨、來料、各階段的半製成品及製成品進行抽樣檢查，以確保產品符合顧客的規格。

9. 對供應商及外發工作承辦商的工場作例行巡查，以確保其產品符合應有的品質標準。
10. 測試紙張和紙板的紙紋、基重、厚度、不透明度、尺寸穩定性、吸收性、平滑度、抗剝紙度、抗摩擦度、耐摺度、耐破度及酸鹼值。
11. 測試油墨的流阻度、黏度和色澤。
12. 測試軟片及印版的網點大小及形狀。
13. 量計產品損壞情況，以釐定材料、半製成品及製成品的可接受程度。
14. 審查產品損壞的成因，並建議預防及補救方法。
15. 建立及檢討來貨及產品在處理、檢查、存放、保護、保存、包裝、損耗處理及運輸等方面的品質控制程序。
16. 建立及檢討公司的品質控制系統、抽樣檢查法及品質標準。
17. 維持安全及良好的工作環境，以及和諧的勞資關係。

V. 行業理論：具備下列知識：

1. 基本印刷知識。
2. 電腦應用。
3. ISO 9000、ISO14000 品質圈、全面品質管理等國際認可品質管理系統。
4. 抽樣及統計方法。
5. 各項印刷品的生產方法及工作程序。
6. 不同種類、特性的印刷材料及其用途。
7. 不同尺度及基重的紙張，包括英、美及國際標準組織紙度。
8. 各種印刷圖像、字款及字體大小。

9. 顏色理論。
10. 各種印刷品質控制儀器。
11. 測試紙張、油墨、軟片及印版的各種儀器。
12. 管理資訊系統。
13. 人力資源管理。
14. 採購及投標。
15. 公司規例及規則。
16. 環保及排污管理。
17. 工業危險及所須安全措施。
18. 有關的職業安全及健康條例，工廠及工業經營條例和學徒條例，以及知識產權法例和環保法例。

VI. 訓練： 須完成下列或相等程度的項目：

1. 途徑一

- (i) 修畢中五，並在香港中學會考取得五科 E 級或以上成績，其中須包括英文科(課程乙)，然後接受三年有系統的技術員學徒訓練；以及
- (ii) 學員接受學徒訓練期間，須在香港專業教育學院修讀有關的部份時間制印刷證書課程。

2. 途徑二

- (i) 在印刷業訓練中心修畢一年全日制技術員基礎證書課程，然後接受兩年有系統的技術員學徒訓練；以及
- (ii) 學員接受學徒訓練期間，須在香港專業教育學院修讀有關的部份時間制印刷證書課程。

3. 途徑三

在香港專業教育學院修畢兩年全日制印刷及電腦圖像文憑課程，然後接受一年有系統的在職訓練。

4. 途徑四

完成印刷技工學徒訓練，繼而進修夜學制技術員預修課程，然後修讀有關的印刷技術員課程，另加工作經驗。

I. **職 稱**： 電子印前系統操作工

II. **技能等級**： 技工

III. **工作說明**： 在桌面排版電腦輸入及處理資料，編輯內文，處理黑白或彩色圖像；操作腦輸出設備，例如激光打印機、影像排照機或製版系統等。

IV. **行業技能**： 具備下列技能：

1. 操作和保養電子印前電腦排版系統，包括有關電腦硬件及周邊設備、小型分色機、噴墨或激光打印機、數碼打稿系統、影像排照機及沖片機及 / 或電腦直接製版系統，以及其他電子輸出設備。
2. 熟悉電子印前設備的基本功能。
3. 認識不同字款。
4. 熟習電子印前軟件的應用。
5. 應用英美及中文字體量度系統。
6. 識別各種不同尺度及基重的紙張。
7. 用標準校對符號標註校樣。
8. 熟悉各種電子印前輸出材料及沖片化學品的用途，以及安全預防措施。
9. 闡釋公司的書籍埋版方法及工作指示。
10. 製備排版圖樣。
11. 內文、標題及碎件的資料輸入、處理及編輯。
12. 將彩色原稿分類，以備複製。

13. 定出原稿縮放比例。
14. 分辨色調層次。
15. 計算及量度原稿的密度範圍。
16. 定出半色調製作的網線數目、網點形狀及網線角度。
17. 用各種顏色管理軟件，將彩色圖像由 RGB 模式轉換為 CMYK(+) 模式。
18. 用電腦排版終端機編輯線條、半色調、線條及半色調組合、網地、雙色調及四色圖像。
19. 備妥輸入的數碼檔案。
20. 正確使用各種感光材料及沖片化學品。
21. 定出光部、暗部、底色去除、灰色去除及虛光蒙片資料。
22. 利用電腦軟件進行組版。
23. 製作彩色稿樣。
24. 利用電子印前輸出設備處理輸出製版感光軟片或柯式版。
25. 記錄及整理數碼檔案，以備日後使用。
26. 維持安全及良好的工作環境，以及和諧的勞資關係。

V. 行業理論：具備下列知識：

1. 電子印前排版系統（包括有關電腦硬件及周邊設備、桌面掃描機、噴墨或激光打印機、數碼打稿系統、影像排照機及沖片機及 / 或電腦直接製版系統）的操作程序。
2. 電子印前設備的基本功能。
3. 各種中文輸入法。
4. 電腦硬件及軟件的保存方法、用途及應用。

5. 不同字款、顏色管理及桌面出版軟件。
6. 各種不同尺度及基重的紙張，包括英、美及國際標準組織紙度。
7. 計算版數及配稿。
8. 製備工作樣本及埋版方法。
9. 英、美及中文字體量度系統。
10. 標準校對符號。
11. 各種感光材料、沖片化學品的特性及安全資料（數據紙）。
12. 量度光密度。
13. 色調層次。
14. 備妥輸入的數碼檔案。
15. 網線數目、網點形狀、網線角度及隨機網。
16. 顏色的理論、彩色複製及彩色印刷原理。
17. 彩色原稿分類。
18. 底色去除、灰色去除及虛光蒙片原理。
19. 計算縮放比例。
20. 數碼檔案轉換。
21. 整理原稿及規定版樣。
22. 公司規例及規則。
23. 環保及排污管理。
24. 工業危險及所須安全措施。
25. 有關的職業安全及健康法例，工廠及工業經營條例和學徒條例，以及知識產權法例和環保法例。

訓練：

1. 方式

途徑一

修畢一年全日制基本技術證書課程後，接受兩年有系統的技工學徒訓練，同時修讀有關的部分時間制技工課程。

途徑二

接受三年有系統的技工學徒訓練，同時修讀有關的部分時間制技工課程。

2. 受訓要求

修畢中三。

I. 職 稱： 柯式版製作工

II. 技能等級： 技工

III. 工作說明： 併合軟片及製作柯式印版作印刷之用，及 / 或操作電腦蒙片裁切系統。

IV. 行業技能： 具備下列技能：

1. 操作和保養照相影版及製版設備。
2. 安全和正確使用拼版用手工具及照相影版儀器。
3. 熟悉照相影版設備的基本功能。
4. 正確使用各種照相影版及拼版用物料。
5. 正確使用各種感光材料、預塗感光版及化學品。
6. 識別各種不同尺度及基重的紙張。
7. 量度各種柯式印刷機的版夾及夾牙空位的尺寸。
8. 闡釋公司的書籍埋版系統及工作指示。
9. 分辨色調層次。
10. 計算和量度光密度。
11. 製備書籍及散張表格的埋版圖，並預留版夾及夾牙空位。
12. 用打孔定位方法拼正、負片大版，以達至精密套準。
13. 拼大版。

14. 在大版上加插參考及套印標記。
15. 製備曬版用遮光片。
16. 曬版前，檢查及修補正、負片。
17. 利用梯尺控制條，測試並定出曝光時間。
18. 使用柯式版打孔裝置。
19. 利用預塗感光版，製作線網混合印版及四色半色調印版。
20. 用曬版機進行連曬。
21. 利用梯尺、色帶及品質控制設備，檢查影像質素。
22. 製作彩色稿樣。
23. 改正製版錯誤。
24. 維持安全及良好的工作環境，以及和諧的勞資關係。

· **行業理論：** 具備下列知識：

1. 照相影版及製版設備的操作程序。
2. 照相影版設備的基本功能。
3. 各種不同尺度及基重的紙張，包括英、美及國際標準組織紙度。
4. 電腦照相影版的應用。
5. 光學與顏色理論、彩色複製及彩色印刷原理。
6. 各種感光材料及沖片化學品的特性。
7. 製備工作樣本及埋版方法。
8. 量度光密度。
9. 色調層次。
10. 網線數目、網點形狀及網線角度。

11. 拼大版。
12. 印版瑕疵修正方法。
13. 公司規例及規則。
14. 環保及排污管理。
15. 工業危險及所須安全措施。
16. 有關的職業安全及健康法例，工廠及工業經營條例和學徒條例，以及知識產權法例和環保法例。

VI. 訓練：

1. 方式

途徑一

修畢一年全日制基本技術證書課程後，接受兩年有系統的技工學徒訓練，同時修讀有關的部分時間制技工課程。

途徑二

接受三年有系統的技工學徒訓練，同時修讀有關的部分時間制技工課程。

2. 受訓要求

修畢中三。

I. 職 稱： 數碼印刷系統操作工

II. 技能等級： 技工

III. 工作說明： 在桌面排版電腦輸入及處理資料，編輯內文，處理黑白或彩色圖像；設定及操作數碼印刷系統。

IV. 行業技能： 具備下列技能：

1. 操作和保養線上電子印前電腦排版及印刷系統，包括有關電腦硬件及周邊設備、桌面掃描器、數碼印刷設備。
2. 熟悉電子印前設備及數碼印刷系統的基本功能。
3. 認識不同字款。
4. 熟習電子印前軟件的應用。
5. 應用英美及中文字體量度系統。
6. 識別各種不同尺度及基重的紙張。
7. 用標準校對符號標註校樣。
8. 熟悉各種電子印前輸出材料的用途，以及安全預防措施。
9. 闡釋公司的書籍埋版方法及工作指示。
10. 內文、標題及碎件的資料輸入、處理及編輯。
11. 用各種顏色管理軟件，將彩色圖像由 RGB 模式轉換為 CMYK(+) 模式。
12. 用電腦排版終端機編輯線條、半色調、線條及半色調組合、網地、雙色調及四色圖像。

13. 備妥輸入的數碼檔案。
14. 利用電腦軟件進行組版。
15. 以數碼印刷方式輸出。
16. 記錄及整理數碼檔案，以備日後使用。
17. 找出印件毛病，並加以補救。
18. 維持安全及良好的工作環境，以及和諧的勞資關係。

V. 行業理論：具備下列知識：

1. 電子印前排版及印刷系統（包括有關電腦硬件及周邊設備、桌面掃描機及數碼印刷設備）的操作程序。
2. 電子印前及印刷設備的基本功能。
3. 各種中文輸入法。
4. 電腦硬件及軟件的存放方法、用途及應用。
5. 不同字款、顏色管理及桌面出版軟件。
6. 各種不同尺度及基重的紙張，包括英、美及國際標準組織紙度。
7. 製備工作樣本及埋版方法。
8. 英、美及中文字體量度系統。
9. 標準校對符號。
10. 備妥輸入的數碼檔案。
11. 顏色的理論。
12. 計算縮放比例。
13. 數碼檔案轉換。
14. 整理原稿及規定版樣。
15. 公司規例及規則。

16. 環保及排污管理。
17. 工業危險及所須安全措施。
18. 有關的職業安全及健康法例，工廠及工業經營條例和學徒條例，以及知識產權法例和環保法例。

VI. 訓練：

1. 方式

途徑一

修畢一年全日制基本技術證書課程後，接受兩年有系統的技工學徒訓練，同時修讀有關的部分時間制技工課程。

途徑二

接受三年有系統的技工學徒訓練，同時修讀有關的部分時間制技工課程。

2. 受訓要求

修畢中三。

I. 職 稱： 凸版標籤印刷工

II. 技能等級： 技工

III. 工作說明： 準備及操作卷筒給紙式或單張給紙式凸版標籤印刷機。

IV. 行業技能： 具備下列技能：

1. 操作和保養凸版標籤印刷機。
2. 安全和正確使用手排字、埋版及凸版標籤印刷用工具。
3. 熟悉凸版標籤印刷機的基本功能。
4. 識別不同承印物料的特性。
5. 闡釋和擬備公司的埋版方法及工作指示。
6. 裝版上機。
7. 調校油墨及配色。
8. 使用品質控制及套準設備、光學量度設備及間線檯。
9. 認識各種印刷故障及補救方法。
10. 嵌校模切、壓線、印號碼、壓凸、熱燙印及針孔印版。
11. 進行校機程序，包括：
 - (i) 校位；
 - (ii) 調校放卷、回卷及切張裝置；
 - (iii) 印機上墨；

- (iv) 套位；
 - (v) 裝承印物料；
 - (vi) 調校乾燥及裱膠設施；
 - (vii) 調校廢料回捲設施；
 - (viii) 準備上墊、中墊及下墊；
 - (ix) 壓力調校；
 - (x) 檢查印刷品質，並改正錯誤。
12. 用凸版標籤印刷機進行模切、壓摺痕、印號碼、壓凸、熱燙印及針孔操作。
 13. 用凸版標籤印刷機施印不同類別的塑膠及金屬箔、膠底紙。
 14. 用凸版標籤印刷機印刷線條、實地、半色調、網地、精細套準、多色、四色及雙色調印件。
 15. 洗機技術。
 16. 維持安全和良好的工作環境，以及和諧的勞資關係。

V. 行業理論：具備下列知識：

1. 凸版標籤印刷機的操作程序。
2. 凸版標籤印刷機的基本功能。
3. 各種不同尺度及基重的紙張，包括英、美及國際標準組織紙度。
4. 塑膠膜及金屬箔、膠底紙、紙張及油墨的特性。
5. 凸版標籤印刷機的一般校機程序。
6. 顏色的理論及彩色原理。
7. 調校油墨及配色。
8. 埋版方法。

9. 各種印刷故障及補救方法。
10. 各種凸版。
11. 電腦控制凸版標籤印刷機操作的應用。
12. 公司規例及規則。
13. 環保及排污管理。
14. 工業危險及所須安全措施。
15. 有關的職業安全及健康法例，工廠及工業經營條例和學徒條例，以及知識產權法例和環保法例。

VI. 訓練：

1. 方式

途徑一

修畢一年全日制基本技術證書課程後，接受兩年有系統的技工學徒訓練，同時修讀有關的部分時間制技工課程。

途徑二

接受三年有系統的技工學徒訓練，同時修讀有關的部分時間制技工課程。

2. 受訓要求

修畢中三。

I. 職 稱： 印刷及印後操作工

II. 技能等級： 技工

III. 工作說明： 準備、操作單張給紙式或捲筒給紙式柯式印刷機及基本裝訂機器，以及基本人手裝訂工作。

IV. 行業技能： 具備下列技能：

1. 操作和保養製版設備及柯式印刷機。
2. 安全和正確使用製版、柯式印刷工具及配件。
3. 熟悉製版設備及柯式印刷機的基本功能。
4. 識別不同尺度及基重的紙張。
5. 闡釋和擬備公司的埋版 / 摺頁方法及工作指示。
6. 調校油墨及配色。
7. 使用品質控制及套準設備、光學量度設備及間線檯。
8. 處理紙張，包括鬆紙、齊紙、數紙及堆紙。
9. 認識各種印刷故障及補救方法。
10. 熟悉和應用各種預塗感光版及化學品。
11. 在未曝光的柯式版上打孔。
12. 利用梯尺控制條測試和定出曝光時間。
13. 用預塗感光版製作線網混合印版及四色半色調印版。
14. 利用梯尺、色帶及其他品質控制設備檢查預塗感光版的影像質素。

15. 改正製版錯誤。
16. 校機程序，包括：
 - (i) 調校給紙器、夾牙、潤濕系統、滾墨系統及紙張傳送裝置；
 - (ii) 利用定位孔輔助，將印版及墊紙裝上版圓筒；
 - (iii) 將膠布及墊紙裝上膠布圓筒；
 - (iv) 調校前標針、橫標針及定位；
 - (v) 裝紙；
 - (vi) 橫向及圓周向的控制調校；
 - (vii) 調校噴粉器；
 - (viii) 開機試印；
 - (ix) 印樣劃線、在標準光源下檢查印刷品質，並改正錯誤。
17. 用柯式機印刷線條、實地、半色調、網地、精細套準、多色、四色及雙色調印件。
18. 用柯式印刷機印號碼及針孔。
19. 用多色及可變式柯式印刷機作底面及多色同步印刷。
20. 用柯式印刷機施印不同種類紙張及紙版。
21. 洗機技術。
22. 印版上膠，供重印用。
23. 操作和保養印後加工裝訂機。
24. 使用手動及電動印後加工裝訂機械。
25. 熟悉印後加工裝訂機械的基本功能。
26. 正確使用各種書籍裝訂材料。
27. 處理並裝置燙金用的金屬電版。

28. 基本人手裝訂技術，包括上膠、做拍紙部、裱膠、裱襯紙、裝裱、製造簡單紙盒、摺疊、套帖及封書皮。
29. 印成品包裝及存倉。
30. 維持安全和良好的工作環境，以及和諧的勞資關係。

V. 行業理論：具備下列知識：

1. 製版設備及柯式印刷機的操作程序。
2. 製版設備及柯式印刷機的基本功能。
3. 光及顏色的理論及彩色印刷原理。
4. 各種不同尺度及基重的紙張，包括英、美及國際標準組織紙度。
5. 電腦印刷控制系統的應用。
6. 製備工作樣本及埋版 / 摺頁方法。
7. 量度光密度。
8. 調校油墨及配色。
9. 紙張、水槽液、膠布及油墨的特性。
10. 柯式印刷機的一般校機程序。
11. 處理紙張技術，包括鬆紙、齊紙、數紙及堆紙。
12. 預塗感光版和沖版化學品的用途及應用。
13. 各種印刷故障及補救方法。
14. 應用雙面式（全張紙式施印）、橫轉式（半張紙式施印）、扭轉式及翻轉式印刷技術。
15. 改正製版錯誤的方法。
16. 印後加工裝訂機械的操作程序。
17. 印後加工裝訂機械的基本功能。

18. 各種書籍裝訂材料及燙金電版的特性。
19. 印後加工裝訂機械的一般校機程序。
20. 各種書籍裝訂錯誤及補救方法。
21. 印成品的品質控制。
22. 國際認同的印前，印刷及印後工序電腦化組織的知識。
23. 公司規例及規則。
24. 環保及排污管理。
25. 工業危險及所須安全措施。
26. 有關的職業安全及健康法例，工廠及工業經營條例和學徒條例，以及知識產權法例和環保法例。

VI. 訓練：

1. 方式

途徑一

修畢一年全日制基本技術證書課程後，接受兩年有系統的技工學徒訓練，同時修讀有關的部分時間制技工課程。

途徑二

接受三年有系統的技工學徒訓練，同時修讀有關的部分時間制技工課程。

2. 受訓要求

修畢中三。