



**Specification of Competency
Standards for the Printing and
Publishing Industry of
Hong Kong**

First Edition

Supplement

March 2015

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Chapter 1

Forewords

1. Printing and Publishing Industries are duo of the earliest industries in implementing Qualifications Framework. In April 2004, the then Education and Manpower Bureau (current Education Bureau) assisted the establishment of “Industry Training Advisory Committee(ITAC)” for the Printing and Publishing Industries, which has facilitated the implementation of Qualifications Framework in the industries. In 2007, ITAC developed the First Edition of “Specification of Competency Standards (SCS)” for the industries. In the past eight years, the Printing and Publishing Industries have faced various changes in technology and market development. ITAC started to review and recommend different revisions and additions to SCS in order to match the new demand for industries’ development. Advanced Printing Technology Centre (APTEC) was commissioned to be the “Principal Writer” for the revision and addition work. The main purposes were: to identify new skills and knowledge for keeping Printing and Publishing Industries’ competitive edges in the global media market; to introduce new functional areas such as “green printing”, “e-commerce”, “e-publishing” and “transmedia services”, etc; and to enrich and revise the contents of SCS in functional areas of “printing standards”, “printing technology” and “publishing commissioning and planning” for more focused development. Based on APTEC’s submission, ITAC has decided to issue a supplemental edition of SCS’s First Edition, of which both documents should be referenced in totality. ITAC has also issued new guidelines on the cross-referencing of the “Units of Competency (UoCs)” inside all functional areas of both Printing and Publishing Industries. Companies should flexibly pick up any UoCs that could match their skills requirements regardless of boundaries of functional areas in either industries in meeting fast changing challenges.

Industry Background

2. Printing and Publishing Industries are long established industries since more than a hundred years ago in Hong Kong. In early 20 Century, many local printing and publishing houses were found to fulfil the needs gave rise from import and export trading between East and West of the Globe. This was followed by additional boost in foreign direct investment by multinational printing groups for setting up local operations or even regional headquarters in Hong Kong in mid 20 Century. In 1970s and 1980s, the rise of Hong Kong’s economic importance, named one of the four economic tigers in Asia, grasped the perfect time and opportunity of China Mainland’s Open Door Policy for rapid development. It is also around this period when Hong Kong was mentioned to be the fourth Printing and Publishing Centre in the World.

3. At the turn of the Century from 1990s onwards, Hong Kong’s Printing and Publishing Industries have entered into the golden age. The mature and developed management capability and

quality human resources met with the elevated competition in costs and from off shores, together with the initial challenges of digitised media. The most prominent incident of Internet development was in 1995 when the total domain names registered outside of the USA had surpassed that of inside. In the same year, the massive introduction of computer-to-plate technology inside Drupa World Printing Exposition marked the milestone of digital printing and publishing workflow development. Both developments have tremendous impact to Printing and Publishing Industries' ongoing business prospect.

4. In entering 21st Century, challenges have never been greater, the SARS epidemic in 2003 and financial turmoil in 2008 have hard hit on Hong Kong's image and economy, and the whole world's economic stability. Printing and Publishing Industries, together with quite a few other industries, have since then been entering into a prolonged period of business shrinkage. What even worse, in 2010 and 2011, Apple Computer launched both of its game changing gadgets iPad and iPhone3, coupling with 3G mobile network and big libraries of Apps, unveiled a new era of individualised mobile platform. The change in personal habit in consuming visual images and information brought about fundamental disruption of the business paradigm of both Printing and Publishing Industries. They inevitably had to extend the scope of their business to e-Commerce, e-Publishing, e-Book, digital printing and variable data printing. The players of the industries had to reformulate corporate strategies and pioneer new business model in order to take advantage of Hong Kong's spirits in industriousness, flexibility and efficiency in rejuvenating the industries' long term competitiveness.

A Scan of Societal, Technological, Economic and Political (STEP) Factors

Societal Factors

I. New Generations

5. From baby boomers after World Wars II to the digital citizens (Generations X and Y) borned in 1980s and 1990s, there have been definitive differences in the societal generations. Whilst baby boomers had enjoyed the opportunities associated with rapid economic expansion, the young baby boomers could build their brighter futures through industries, knowledge and competition encourage others. They could be characterized by their thirsty and hungry for fruits of their own struggle in life. On the other hands, digital citizens from 1980s and 1990s had a very different nurturing ground, they grew up in an digital and personal mobile environment in which "rights" have been mostly "free of charges" and "personal responsibilities". Knowledge and entertainment were flooded everywhere and could be accessed in no time. World's economy had been closer to its development plateau and lost its consistency and stability in the past. The new generations had little rooms for them to struggle upwards and sometimes just limited to the opportunities in digital world and service industries. In particular, the proportion of economic activities could be more and more

dominated by them and their career choices, reading habits, attention span, and consumption model would have deterministic impact to Printing and Publishing Industries' future.

II. Environmental Conscious

6. Under the promotion of fast moving consumption during urbanization process, there have been a lot of concerns in the last 10 to 20 years by Hong Kong's general public on environmental sustainability. From the past when the polluted air quality affected by the World Factory areas in Pearl River Delta to the transportation generated pollution, and the reduction of city wastes and related treatment, all have become key social issues. With this back drop, paper consumption has also become an unwelcome act. In facing this kind of environmental concerns, Printing and Publishing Industries should also uphold an industry best practice in environmentally friendly supply chain so as to progress side-by-side by societal expectations.

Technological Perspective

I. Standardization and Automation

7. Printing technology has gone through phases of advancement that had allowed the industry to get rid of negative influences of human errors and subjectivities in quality parameters. At the same time, competitive advantages were changed from skills based to knowledge based, when the whole industry would be demanded entering into gull standardized and automated stage in order to stay in the successful league.

II. e-Book and e-Publishing

8. From the beginning of individual mobile platform era, the revenue generated by e-Book now represented more than 10% in the publishing industry of some economies, such as the USA. The trend has been act and print-based book had to face increasing pressure from the continuous erosion by e-Book with further technological development. Other than e-Book that still claimed to appear in the format of "book", Publishing Industry needed to meet competitions from other e-Publishing formats which could bring same or maybe even better reading experiences such as educational games, traveler's blogs in replacing textbooks and travel guides respectively. Publishing Industry has to take proactive steps to prevent further loses in publishing businesses to other sectors.

Economical Perspectives

I. Individualized Economy

9. In the past, a lot of Printing and Publishing Industries' businesses were relied on the bulk procurement with long print run by customers selling based on giant chain stores. However, this kind of procurement will more and more be just applicable to fast moving consumer goods FMCGs market. And for Printing and Publishing Industries, the market has been moved to the other end of the market spectrum where products were personalized and individualized. The Industries had to command new capabilities in e-commerce, variable data printing, and direct access to understand the behaviors and needs of individual consumers before they could match with the new individualized economy.

II. Economy of Chinese Language and Culture

10. Even in the Western economies, publishing products based on Germany's Culture and Language still accounted about 10% of the total market size. The percentage shows of Chinese Language and Culture based publishing products was comparatively very small in today's standard. Printing and Publishing Industries should strategize the expert market of these publishing products as a growth area.

Political Perspective

I. Closer Economic Partnership Arrangement (CEPA)

11. In the various editions of CEPA, Printing and Publishing Industries have gained certain rights of incorporations and businesses areas in China Mainland. However, there were other creative industry sectors that had already enjoyed more freedom to expand their businesses in China market. Printing and Publishing Industries should proactively enhance the arrangement in near future and leverage their leading capabilities for opening up more print-based and relatively less developed publishing market opportunities on China Mainland.

II. International Printing and Publishing membership

12. Hong Kong Printing and Publishing Industries had received throughout the years a lot of praise and respect by international peers. The Industries should consistently and actively participate in International trade associations for various learning and exchange events. By acting as the "super-connector" role in printing and publishing, the Industries could be the examples for mainland's peers internationalization process. This meaningful task would not be an easy target and requires persistent input of effort.

Hong Kong's Printing and Publishing Business Outlook

13. The revision and addition work of the SCS under the qualification framework of Hong Kong's Printing and Publishing Industries was conducted with a view of reexamining the industries' businesses outlook. Amidst the toughest time in businesses performance, the revised and new UoCs had detailed the competencies required for the Industries to realign their strategies. The Supplemental Edition had not only addressed the micro level of competency requirement but also in totality the macro level corporate capability's new development direction and guide.

Chapter 2

Qualifications Framework

Qualifications Framework

14. The Qualifications Framework (QF) is a voluntary system. It is a seven-level hierarchy that provides benchmarks for determining the level of complexity and difficulty of individual competencies. It is also used to order and support qualifications of different natures and titles. The QF is underpinned by an independent quality assurance (QA) mechanism that would enhance recognition and acceptance of the qualifications in the industry, irrespective of the mode and source of learning. The QF aims to provide clear learning pathways for individuals to draw up their own road maps to obtain quality assured qualifications. Learners may either pursue a specific learning pathway to upgrade their skills in a particular area of specialization in a gradual and orderly manner (vertical development), or progress through traversing learning pathways to become multi-skilled (horizontal development). Through the full-scale implementation of the QF, we will foster an environment and culture conducive to lifelong learning and continuing education in the industry. With the active participation of employers and employees, as well as the wide acceptance of the industry, the QF will also encourage the development of quality training programmes by providers to meet the needs of the community and the industry.

15. Qualifications recognized under the QF are outcome-based and are not confined to academic attainment. In the case of the academic sector, the outcome standard of qualifications is mainly the knowledge and skills a person possesses. Generally, these standards are set by scholars. In the vocational sector, the outcome standards of qualifications are set by individual industries. To identify the specific outcome standards required for different levels of qualifications, these industries need to develop SCSs. A Recognition of Prior Learning (RPL) mechanism developed by individual industries is in place to recognize existing workers' skills, knowledge and work experience. With qualifications so obtained, the employees may pursue further studies at different levels to obtain higher and wider qualifications.

16. To facilitate lifelong learning, employees require flexibility in the mode and pattern of learning to cater for their work and family responsibilities. A Credit Accumulation and Transfer (CAT) system will provide the flexibility to suit individual circumstances and minimize duplication in training. With a CAT system, learners can systematically accumulate the credits of learning and training gained from various courses with a view to converting the accumulated credits into a recognized qualification. The development of the QF will facilitate CAT arrangement between sectors and training providers by providing a unified platform and common benchmarks.

17. Generally speaking, the QF has relevance not only to the workplace but also to secondary education. The SCSs developed by industries would support the Applied Learning Courses under the new academic structure for senior secondary education, so as to provide diversified learning experience and choices to students and enable them to master the basic skills required by various industries.

Qualifications Framework levels

18. The QF has seven levels, from level 1 to level 7, where level 1 is the lowest and level 7 the highest. The outcome characteristic of each level is depicted by a set of generic level descriptors (GLD) (Appendix 1). The GLD specifies for each QF level its generic complexity, demand and challenges in the four dimensions below:

- a. Knowledge and intellectual skills;
- b. Process;
- c. Application, autonomy and accountability; and
- d. Communications, IT skills and numeracy.

19. The UoCs are bench marked to the QF levels in accordance with the GLD. It is worth to note that competency elements in a UoC may fall in some or all of the GLD dimensions as what it naturally should be. The QF level assignment is essentially a holistic judgment on the unit's integrated outcome requirement.

20. QF levels are discrete. That is, there cannot be assignment of UoC in-between QF levels. Also, UoCs that may not fully match the characteristic requirement of one or more dimensions of a level would be "rounded" to the level below.

Chapter 3

Specification of Competency Standards

Specification of Competency Standards

21. The development of SCSs is an important step in implementing the QF and its associated quality assurance mechanism. Industries play a pivotal role in the process through participation in the Industry Training Advisory Committees (ITACs), which are tasked to develop, maintain and update the SCSs. To ensure continued relevance of an SCS, the ITAC concerned must review and update the SCS regularly to keep abreast of the latest manpower requirements and to meet the full range of education and training needs of the industry.

22. The SCS consists of competency standards of different levels. Competency standards are benchmarks for the industry-specific knowledge, professional skills and soft skills required for performing different job functions of the industry. The functional areas and competency standards under SCS will be practical and competence-based. The SCS not only sets out the professional knowledge and skills required for today, but also takes into account factors such as the development trend of both the industry and the society. The assessment guidelines for the outcome standards will also be stipulated in the SCS. The competency standards applicable to an industry are presented as "units of competency" in its SCS. Every "unit of competency" comprises eight basic items:

1. Name
2. Code
3. Level
4. Credit
5. Competency
6. Range
7. Assessment Criteria
8. Remarks

23. Since SCS-based programmes are developed with units of competency, trainees may have their qualifications (including qualifications obtained from formal studies as well as those obtained from the Recognition of Prior Learning (RPL) mechanism) accumulated and move along the ladder of progression without the need to start from scratch. The SCSs also provide clear progression pathways whereby trainees may draw up their own career development plans.

24. The SCS assists training providers in curriculum design and supports human resources managers in their staff development efforts. It also lays out the criteria for industry-wide recognition of outstanding performance and for the award of relevant qualifications. Also, it will facilitate ongoing implementation of the Qualifications Framework.

Major Functional Areas of the Printing and Publishing Industry

25. The Printing and Publishing ITAC recommends that major functional areas be defined according to professional skills of the printing and publishing industry. The Specification of Competency Standards covers the following functional areas:

(a) The Printing Industry

(i) Operation and Management

The functional area of Operation and Management requires the printing industry practitioner to attain efficient and effective management of the printing enterprise based on their knowledge of modern commercial operation and management methods and skills as well as legal provisions.

(ii) Creativity

The functional area of Creativity requires the printing industry practitioner to improve the outward appearance and quality of print products with the application of design and cultural studies theories.

(iii) Prepress Technology

The functional area of Prepress Technology requires the printing industry practitioner to ensure efficiency and quality in the early stages of printing by mastering techniques of conventional and digital image input and output, computerized page composition, graphics and retouching skills and related operation.

(iv) Printing Technology

The functional area of Printing Technology requires the printing industry practitioner to ensure that print products meet the requirements of customers by mastering the principles and

operation of major printing methods, including printing machinery control, ink mixing and press proof examination.

(v) Postpress Technology

The functional area of Postpress Technology requires the printing industry practitioner to enhance the efficiency of postpress processes and to stabilize the quality of print products by mastering the principles and operational techniques for different methods of binding for major jobbing works, books and printed packaging, including the functions, adjustment and control of binding machinery.

(vi) Estimation and Costing

The functional area of Estimation and Costing requires the printing industry practitioner to prepare cost estimates for printed matter based on their understanding of information regarding costs to the company in addition to devising and implementing cost control plans for cost saving purposes.

(vii) Customer/Consumer Relations

The functional area of Customer/Consumer Relations requires that the printing industry practitioner understands his role in customer relations and the importance of quality customer services to a company. By means of professional communications and customer service skills, the practitioner provides quality service to worldwide customers to foster the development of the printing enterprise and to tap new sources of business.

(viii) IT (Information Technology)

The functional area of IT requires that the printing industry practitioner has basic knowledge of using office software and Internet technology. By making use of information systems and application of Internet technology, the practitioner enables the printing enterprise to realize corporate management, business promotion and communication with customers by means of the computer and the Internet.

(ix) Quality Management

The functional area of Quality Management requires that the printing industry practitioner masters quality inspection and control for print products during production in order that the printed matter fulfill customer requirements and ensures that the quality of printed matter is consistent and of internationally recognized standards. The practitioner shall be capable of analyzing and handling buyers' queries and complaints as well as assisting the enterprise in quality management and related training. It is essential that the practitioner understands his role in quality management and the importance of quality production to a printing enterprise. Efficient production control and quality management enables local printing enterprises to secure a position in the international realm.

(x) Printing Machinery

The functional area of Printing Machinery requires that the printing industry practitioner has basic knowledge of prepress, printing and postpress machinery and masters the operation of major machinery and maintenance techniques so as to reduce time and financial loss due to machine breakdown or lack of maintenance. °

(xi) Colour Management

The functional area of Colour Management requires an understanding of colour reproduction theory and the concept of colour space. By using prepress colour management software and controlling the representation of colour during printing processes, the ultimate objective is to realize WYSIWYG (what you see is what you get).

(xii) Product Structure

The functional area of Product Structure requires an understanding of the composition, properties and application of conventional print products and digital storage media. By exploring the use of special materials for print products, the printing industry practitioner fosters product diversification and enhances

competitiveness of the printing enterprise.

(xiii) Material Technology

The functional area of Material Technology requires an understanding of the functions, properties, physical composition and chemical effects of major prepress, printing and postpress finishing materials. Through matching, more suitable printing materials can go together for improving the overall quality of printing. Proper and safe use of hazardous printing materials minimizes accidents.

(xiv) Green Printing (New)

The functional area of Green Printing requires that printing industry practitioner understands the corporate environmental protection responsibility and concept of sustainability, and masters how printing production flow conform to international environmental protection standards. It covers skills to master the calculation methodology of carbon footprint; understand international forestry certification systems and green printing materials standards. In addition, in view of the rapid development of transmedia, printing practitioners need to have skills to master the carbon emission constituents and calculation methodology for the production and usage carbon footprints of digital media electronics, which can assist printing companies to establish related environmental protection policies.

(xv) E-Commerce (New)

The functional area of E-commerce requires that the printing practitioners understands the application of e-commerce in printing industry, and printing companies to plan their e-commerce businesses. It includes customer services, fulfillment system, on-line platform design, non-paper based printing products, network security management, payment gateway management, marketing management and financial management.

For the details of units of competency covered by various functional areas, please refer to Chapter 4.

(b) The Publishing Industry

(i) Management

The functional area of Management requires that the publishing industry practitioner has basic knowledge of the concept and procedures of publishing as well as related legislation and commercial operation. The practitioner needs to understand the setting of framework and management mechanism and know the underlying principles and policy of publishing work in order to improve the publishing enterprise's management efficiency and effectiveness.

(ii) Editing

The functional area of Editing requires that the publishing industry practitioner understands the use of modern Chinese, classical Chinese and information retrieval so as to master skills for practical writing and proofreading. The practitioner needs to understand the workings of AV and electronic publishing and to master the skills of producing digital carriers, their content and related products so as to promote multimedia/web publishing business.

(iii) Art and Design

The functional area of Art and Design requires that the publishing industry practitioner knows the use of colour in publications, the use of graphics and page layout design. The practitioner needs to understand the expectation of readers regarding readability and to be aware of restrictions so that the aesthetic and quality of the overall design of publishing media be refined.

(iv) Production

The functional area of Production requires that the publishing industry practitioner masters the processes and skills of book and digital media production to facilitate communication with production houses with the aim of producing publishing media that meet market demand.

(v) Marketing

The functional area of Marketing requires that the publishing industry practitioner analyzes and understands market conditions and masters effective marketing skills so that marketing and promotional plans can be formulated and effectively implemented.

(vi) Distribution and Sales

The functional area of Distribution and Sales requires that the publishing industry practitioner comprehends customer psychology and marketing strategies. With useful skills, the practitioner promotes published products of different media.

(vii) Logistics/Warehousing/Transportation

The functional area of Logistics/Warehousing/Transportation requires that the publishing industry practitioner effectively applies logistics control techniques when performing daily duties of warehousing and transport operation so that efficiency of transportation and control of costs can be improved.

(viii) E-Publishing (New)

The functional area of E-Publishing requires that publishing industry practitioners master an integrative concept of e-publishing, and understand the e-publishing business models, rights conventions and management, workflow and management, value chain, financial editorial projection, new technological advancement, so that they can establish the development and promotional strategies of e-publishing and the partnership agreement terms with e-book platforms. Practitioners need also be able to master the e-book formats, visual and users interface design, meta data and bibliography, e-book specifications and e-publishing production methodology, etc., on order to effectively development and operate e-publishing business.

(ix) Transmedia Services (New)

The functional area of Transmedia Services requires that publishing industry practitioners understand transmedia services' creations and strategies directions, special arrangement of partnership in different media, and masters the creation and production concept of the many different media including sound, video, comics, animation, special visual effect, advertising and digital entertainment, and also at the same time master the social media platform and transmedia service production workflow.

For the details of units of competency covered by various functional areas, please refer to Chapter4.

Chapter 4

Unit of Competency

Distribution of unit of competency

26. “Printing and Publishing Industries Training Advising Committee” (ITAC) had confirmed establishing the principal functional areas before it moved forward to work on the units of competency under each individual functional area. The level of each unit of competency was then assessed based on the guideline “General Level Descriptors of Qualifications Framework”. This chapter served to use two types of Listings for showing the distribution of all units of competency in two different ways before the next chapter for detailed elaboration of each unit of competency.

I. List of Competencies for Industry Practitioners

27. “List of competencies for Industry Practitioners” is a listing with qualifications levels lined upon vertical axis and functional areas on horizontal axis. ITAC has categorized all principal functional areas under two different sectors of printing and publishing industries respectively. Therefore, there are two lists of competencies for industry practitioners in this chapter. “List of Competencies for Printing Practitioners” (p.20) covered 15 functional areas. Whereas “List of Competencies for Publishing Industry Practitioners” (p.32) covered 9 functional areas. These two lists allow industry practitioners to clearly identify what units of competency were established under each specific qualifications level and each specific functional area. This clear identification can assist learner to plan his/her study road map. By making reference to the lists of competencies, industry practitioners can choose a specialized skills study pathway (vertical development) by following the advancement of qualifications level under one functional area in a step-by-step manner. On the other hand, industry practitioners can also stick with one qualification levels and follow a multi-skills study pathway (horizontal development). By planning a study roadmap, industry practitioners may eventually acquire one specialized area plus board base competencies.

II. Full List of Competencies of Functional Areas

28. “Full List of Competencies of Functional Areas” is a listing based on individual functional area. It all units of competency that belong to each individual functional area and provided a clear picture of the functional area’s competencies to industry practitioners. In this chapter, there are 15 “Full List of Competencies of Functional Areas of Printing Industry” and 9 “Full List of Competencies of Functional Areas of Publishing Industry”. In order to allow readers to easily make reference to the detail information of competencies, each list of competencies of functional areas has included information of title, code, level, credit value and page number of each unit of competency.

Unit of Competency in Supplement

Specification of Competency Standards for Printing and Publishing Industries First Version Supplement has included units of competency limited to new and revised in nature. There are 134 UoCs (Among which 74 UoCs under printing sector and 60 under publishing sector). In this stage, those UoCs without revision can only be formed in the original specification of competency standards for Printing and Publishing Industries First Version. In this connection, reader may find missing of page number of some UoCs, listed inside “List of Competencies for Industry Practitioners” and “Full List of Competencies of Functional Areas” in this supplement is not a new UoC and has not been revised, and its detail information cannot be found in this Supplement. In other words, readers can go back to the original Specialization of Competency Standards for Printing and Publishing Industries First Version for the rest of all UoCs, unformed in this Supplement. If readers want to read all UoCs of Printing and Publishing Industries, he/she has to make reference to book First Version and First Version Supplement together.

Adjustment on Credit Size of Unit of Competency

According to the decision of Printing & Publishing Industry Training Advisory Committee in October 2017, the credit sizes of parts of the UoCs were further revised. The revision were based on the following principles and assumptions:

- a) QF credit is defined in terms of notional learning time which takes into account the total time likely to be spent to achieve the learning outcomes of the UoCs. Under the Hong Kong QF, one credit consists of 10 notional learning hours;
- b) Before the learner learning a UoC of a higher level, it is assumed that he/she had possessed the competencies of UoCs in lower levels in such functional area.

In this connection, reader may refer to the “List of Unit of Competencies with Adjustments on Credit Size” for the adjustment details. For the qualifications developed in reference to SCS for the Printing and Publishing industry before April 2018, the adjustments on credit size did not affect these qualifications.

List of Competencies for Printing Industry Practitioner

Functional Areas Competency Level	OM(Operation and management)	CT (Creativity)	PE (Prepress technology)	PR (Printing technology)	PO (Postpress technology)	EC(Estimation & costing)	CR (Customer/ Consumer relations)	IT (Information technology)	QM (Quality management)	PM (Printing machinery)	CO (Colour management)	PS (Product structure)	MT (Material technology)	GP (Green printing)	EM (e-Commerce)	
	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	
1	Know printing related legislation (3 credits) 106232L1 (P. 70)	Know basic design (3 credits) PPPRCT101A	Use Chinese and English input techniques (3 credits) PPPRPE101A	Know basic printing technology (3 credits) 106254L1 (P. 94)	Know basic postpress technology (3 credits) PPPRPO101A		Understand basic Chinese terminology (3 credits) 106271L1 (P. 116)	Know office software operation (3 credits) PPPRIT101A	Know basic print quality management (3 credits) PPPRQM101A	Know the basic operation of printing machinery (3 credits) 106281L1 (P. 129)	Know basic colour handling (3 credits) PPPRCO101A	Know broad categories of print product (3 credits) PPPRPS101A	Know the properties of major printing materials (3 credits) 106285L1 (P. 136)			
	Know printing corporate structure (3 credits) PPPRPM102A		Know computer page composition techniques (3 credits) PPPRPE102A	Know basic operation of lithographic printing press for paper feeding and discharging and registration (3 credits) PPPRPR102A							Know basic printing machinery maintenance (3 credits) PPPRPM102A					
	Know work and production flow of printing enterprise (3 credits) PPPRPM103A		Know computer graphics skills (3 credits) PPPRPE103A	Know adjustment and operation of ink roller, dampening, plate, rubber and pressure systems of lithographic printing press (3 credits) PPPRPR103A												
			Know computer retouching techniques (3 credits) PPPRPE104A	Know basic press proof inspection (3 credits) 106255L1 (P. 95)												
			Know digital output techniques (6 credits) 106245L1 (P. 84)	Know screen printing operation (3 credits) PPPRPR105A												
				Know flexographic printing operation (3 credits) PPPRPR106A												

* If no page number of the Unit of Competency is specified, please refer to Specification of Competency Standard First Version, which could be downloaded at the website of Hong Kong Qualifications Framework (<http://www.hkqf.gov.hk>).

List of Competencies for Printing Industry Practitioner

Functional Areas Competency Level	OM(Operation and management)	CT (Creativity)	PE (Prepress technology)	PR (Printing technology)	PO (Postpress technology)	EC(Estimation & costing)	CR (Customer/ Consumer relations)	IT (Information technology)	QM (Quality management)	PM (Printing machinery)	CO (Colour management)	PS (Product structure)	MT (Material technology)	GP (Green printing)	EM (e-Commerce)		
	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency		
2	Understand computerised printing processes (3 credits) 106233L2 (P. 71)	Know design skills (3 credits) PPRCT201A	Master Chinese computer input techniques (3 credits) PPRPE201A	Understand application of printing technology (3 credits) 106256L2 (P. 96)	Understand the applications of postpress technology (3 credits) 106268L2 (P. 112)	Know basic printing cost estimation (3 credits) PPPREC201A	Understand the applications of Chinese terminology (12 學分) 106272L2 (P. 117)	Understand office software application (3 credits) PPPRIT201A	Understand printing quality management (3 credits) 106278L2 (P. 125)	Understand printing machinery maintenance (3 credits) 106282L2 (P. 130)	Understand colour technology application (3 credits) PPPRCO201A	Understand composition of print products (3 credits) PPPRPS201A	Understand the applications of printing materials (3 credits) 106286L2 (P. 136)				
	Know printing logistics (3 credits) PPPROM202A		Understand computer page composition methods (3 credits) PPRPE202A	Master operation of lithographic printing press for paper feeding, delivery and registration (6 credits) 106257L2 (P. 97)			Know basic customer services (3 credits) PPPRCR202A				Know digital colour management (3 credits) PPPRCO202A	Understand digital storage media (3 credits) 106284L2 (P. 134)					
			Understand computer graphics methods (3 credits) PPRPE203A	Master techniques for adjusting and operating ink roller, dampening, plate, rubber and pressure systems of lithographic printing press (3 credits) PPRPR203A													
			Understand computer retouching methods (3 credits) PPRPE204A	Understand screen printing procedures (3 credits) PPRPR204A													
			Understand manual assembly / plate making methods (3 credits) PPRPE205A	Master ink mixing techniques (3 credits) PPRPR205A													

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List of Competencies for Printing Industry Practitioner

Functional Areas Competency Level	OM(Operation and management)	CT (Creativity)	PE (Prepress technology)	PR (Printing technology)	PO (Postpress technology)	EC(Estimation & costing)	CR (Customer/ Consumer relations)	IT (Information technology)	QM (Quality management)	PM (Printing machinery)	CO (Colour management)	PS (Product structure)	MT (Material technology)	GP (Green printing)	EM (e-Commerce)		
	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency		
2			Know basic digital photography techniques (6 credits) 106246L2 (P. 85)	Understand flexographic printing procedures (3 credits) PPRPR206A													
			Know basic techniques for computer scanning and image input (3 credits) PPRPE207A														
			Know preflight techniques (3 credits) PPRPE208A														

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Competency Level	Funtional Areas	OM(Operation and management)	CT (Creativity)	PE (Prepress technology)	PR (Printing technology)	PO (Postpress technology)	EC(Estimation & costing)	CR (Customer/ Consumer relations)	IT (Information technology)	QM (Quality management)	PM (Printing machinery)	CO (Colour management)	PS (Product structure)	MT (Material technology)	GP (Green printing)	EM (e-Commerce)	
		Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency
3	Understand printing related legislations (6 credits) 106234L3 (P. 72)	Know cultural studies (3 credits) PPPRCT301A	Understand digital photography technology (3 credits) PPPRPE301A	Master printing technology (3 credits) PPPRPR301A	Understand postpress technological control (3 credits) PPPRPO301A	Understand printing cost estimation (3 credits) PPPREC301A	Master English/Chinese communication in printing industry (4 credits) PPPRCR301A	Understand basic computer and network technology (3 credits) PPPRIT301A	Understand print quality control and management (6 credits) 106279L3 (P. 126)	Understand workings of printing machinery (3 credits) PPPRPM301A	Understand digital colour management techniques (3 credits) PPPRCO301A	Understand composition of major paper print products (3 credits) PPPRPS301A	Understand the structures of printing materials (6 credits) 106287L3 (P. 138)				
	Know digital printing procedures (6 credits) 106235L3 (P. 73)	Understand design (3 credits) PPPRCT302A	Master manual assembly / plate making techniques (6 credits) PPPRPE302A	Understand digital printing technology (6 credits) 106258L3 (P. 99)			Understand customer service requirements and methods (3 credits) PPPRCR302A	Understand Internet (3 credits) PPPRIT302A				Understand use of digital media carrier (3 credits) PPPRPS302A					
	Understand the techniques for controlling print production processes (6 credits) 106236L3 (P. 74)		Master computer graphics techniques (6 credits) PPPRPE303A	Master lithographic printing technology (6 credits) PPPRPR303A			Understand marketing skills (3 credits) PPPRCR303A	Understand basic programming and internet publishing techniques (6 credits) 106274L3 (P. 120)									
	Understand printing production management (6 credits) 106237L3 (P. 75)		Master computer retouching techniques (6 credits) PPPRPE304A	Master press proof inspection (3 credits) PPPRPR304A													
	Understand logistics control for printing (3 credits) PPPRM305A		Master computer page composition techniques (6 credits) PPPRPE305A														

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Functional Areas Competency Level	OM(Operation and management)	CT (Creativity)	PE (Prepress technology)	PR (Printing technology)	PO (Postpress technology)	EC(Estimation & costing)	CR (Customer/ Consumer relations)	IT (Information technology)	QM (Quality management)	PM (Printing machinery)	CO (Colour management)	PS (Product structure)	MT (Material technology)	GP (Green printing)	EM (e-Commerce)
	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency
3	Understand personnel management (3 credits) PPPROM306A		Understand preflight techniques (6 credits) 106247L3 (P. 86)												
			Understand computer scanning and image input technology (3 credits) PPPRPE307A												
			Understand computer page imposition technology (3 credits) PPPRPE308A												
			Understand CTP (computer-to-plate) technology (6 credits) 106248L3 (P. 87)												
			Understand digital file management techniques (6 credits) 106249L3 (P. 88)												

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Competency Level	Functional Areas	OM(Operation and management)	CT (Creativity)	PE (Prepress technology)	PR (Printing technology)	PO (Postpress technology)	EC(Estimation & costing)	CR (Customer/ Consumer relations)	IT (Information technology)	QM (Quality management)	PM (Printing machinery)	CO (Colour management)	PS (Product structure)	MT (Material technology)	GP (Green printing)	EM (e-Commerce)
	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency
4	Master printing related legislations (6 credits) 106238L4 (P. 76)	Understand printing design (3 credits) PPPRCT401A	Master digital prepress technology (6 credits) 106250L4 (P. 89)	Master printing technology application (6 credits) PPPRPR401A	Understand requirements for postpress technology and techniques for controlling (3 credits) PPPRPO401A	Understand print costing (3 credits) PPPREC401A	Master use of marketing skills (6 credits) PPPRCR401A	Master use of computer and network (3 credits) PPPRIT401A	Master print quality control and management skills and application (6 credits) PPPRQM401A	Master use of printing machinery (6 credits) PPPRPM401A	Master application of digital colour management (6 credits) PPPRCO401A	Know structure of special print products (3 credits) PPPRPS401A	Understand printing material testing (6 credits) 106288L4 (P. 139)	Master the calculation of carbon footprints (3 credits) 106290L4 (P. 142)	Understand the deployment of e-commerce in printing industry (3 credits) 106296L4 (P. 149)	
	Understand techniques for controlling digital flow (3 credits) PPPROM402A	Master application of computer image input (6 credits) PPPRPE402A	Understand special printing techniques (3 credits) PPPRPR402A	Master use of print costing (6 credits) PPPREC402A	Master customer service skills (4 credits) PPPRCR402A	Understand Internet technology (6 credits) 106275L4 (P. 121)	Master print production workflows that meet the international environmental standards (6 credits) 106291L4 (P. 143)	Understand the customer services of e-commerce in printing industry (3 credits) 106297L4 (P. 150)								
	Master the electronic information system for printing (6 credits) 106239L4 (P. 77)	Master digital output techniques (6 credits) 106251L4 (P. 90)	Understand 3D Lenticular Printing technology (6 credits) 106259L4 (P. 100)	Know server services (3 credits) PPPRIT403A	Master the calculation of electronic/ digital media's carbon footprints (3 credits) 106292L4 (P. 144)											
	Master printing production flow planning and management techniques (4 credits) PPPROM404A	Understand digital printing flow system (6 credits) PPPRPE404A	Know use of database system (3 credits) PPPRIT404A													
	Master logistic control techniques for printing (4 credits) PPPROM405A	Know World Wide Web server programming techniques (3 credits) PPPRIT405A														

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Functional Areas Competency Level	OM(Operation and management)	CT (Creativity)	PE (Prepress technology)	PR (Printing technology)	PO (Postpress technology)	EC(Estimation & costing)	CR (Customer/ Consumer relations)	IT (Information technology)	QM (Quality management)	PM (Printing machinery)	CO (Colour management)	PS (Product structure)	MT (Material technology)	GP (Green printing)	EM (e-Commerce)	
	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	
4	Master skills for printing professionals training and management (4 credits) PPPROM406A							Master the techniques for publishing digital audio-visual contents over the internet (6 credits) 106276L4 (P. 122)								
	Adopt income based expenditure management and operation code for printing enterprise (4 credits) PPPROM407A															

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List of Competencies for Printing Industry Practitioner

Functional Areas Competency Level	OM(Operation and management)	CT (Creativity)	PE (Prepress technology)	PR (Printing technology)	PO (Postpress technology)	EC(Estimation & costing)	CR (Customer/ Consumer relations)	IT (Information technology)	QM (Quality management)	PM (Printing machinery)	CO (Colour management)	PS (Product structure)	MT (Material technology)	GP (Green printing)	EM (e-Commerce)
	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency
5	Set departmental budget (4 credits) PPPROM501A	Master cross-media, cross-culture and cross-product design elements (6 credits) PPPRCT501A	Plan facilities configuration and development of prepress department (4 credits) PPPRPE501A	Plan facilities configuration and development of printing department (4 credits) PPPRPR501A	Plan facilities configuration and development of postpress department (4 credits) PPPRPO501A	Master cost and price estimation of newly developed print products (6 credits) PPPRECE501A	Master annual turnover and profit targets attainment (6 credits) PPPRCR501A	Understand printing server service application (3 credits) PPPRIT501A	Master skills for resolving and handling customer complaint concerning print quality (6 credits) PPPRQM501A		Implement color management standards (6 credits) 106283L5 (P. 132)		Adopt printing material standards (6 credits) 106289L5 (P. 140)	Formulate corporate environmental policies (3 credits) 106293L5 (P. 145)	Understand order fulfillment system for e-commerce in printing industry (3 credits) 106298L5 (P. 151)
	Set budget balancing management system and operation code for printing enterprise (4 credits) PPPROM502A		Master upstream and downstream coordination in prepress department (4 credits) PPPRPE502A	Master upstream and downstream coordination for printing department (4 credits) PPPRPR502A	Master upstream and downstream coordination for postpress department (4 credits) PPPRPO502A	Master set up and maintenance of computerized pricing system for printing (6 credits) PPPRECE502A	Formulate print product marketing strategies (6 credits) 106273L5 (P. 118)	Understand use of database system on internet (3 credits) PPPRIT502A	Employ printing standard in establishing a coherent quality assurance mechanism (6 credits) 106280L5 (P. 127)				Formulate policies on procurement of environmentally friendly papers (6 credits) 106294L5 (P. 146)	Understand online store for e-commerce in printing industry (6 credits) 106299L5 (P. 152)	
	Set departmental operation plan, management structure and professional code for printing enterprise (4 credits) PPPROM503A		Master horizontal coordination of prepress department (4 credits) PPPRPE503A	Master horizontal coordination of printing department (4 credits) PPPRPR503A	Master horizontal coordination of postpress department (4 credits) PPPRPO503A		Master customer printing contract and service plan writing (6 credits) PPPRCR503A	Understand printing network planning (3 credits) PPPRIT503A						Formulate corporate policies on procurement and use of green printing materials (3 credits) 106295L5 (P. 147)	Establish marketing plan and sell the non-paper based print products through e-commerce in printing industry (3 credits) 106300L5 (P. 153)
	Effect human resources management (4 credits) PPPROM504A		Plan remote prepress processing flow (4 credits) PPPRPE504A	Establish printing press calibration procedure in compliance with international printing standard (6 credits) 106280L5 (P. 101)	Understand inline postpress technology for variable data printing (3 credits) 106269L5 (P. 113)										Establish network security system for e-commerce in printing industry (3 credits) 106301L5 (P. 154)

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Competency Level	Functional Areas	OM(Operation and management)	CT (Creativity)	PE (Prepress technology)	PR (Printing technology)	PO (Postpress technology)	EC(Estimation & costing)	CR (Customer/ Consumer relations)	IT (Information technology)	QM (Quality management)	PM (Printing machinery)	CO (Colour management)	PS (Product structure)	MT (Material technology)	GP (Green printing)	EM (e-Commerce)		
	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency		
5	Set up digital flow system (6 credits) PPPROM505A			Master digital printing flow system adoption and support (4 credits) PPPRPE505A	Establish development plan for inkjet printing products (6 credits) 106261L5 (P. 102)	Understand inline postpress technology (3 credits) 106270L5 (P. 114)											Establish payment gateway system for e-commerce in printing industry (3 credits) 106302L5 (P. 155)	
	Master techniques for load balancing between production processes (6 credits) PPPROM506A			Master uniform calibration in prepress (6 credits) 106252L5 (P. 91)	Establish development plan for large format inkjet printing products (6 credits) 106262L5 (P. 103)												Establish marketing plan for e-commerce in printing industry (6 credits) 106303L5 (P. 157)	
	Master establishment of computerized warehousing system for printing materials and print products (6 credits) PPPROM507A				Establish development plan for variable data printing technology (6 credits) 106263L5 (P. 105)													
	Set departmental procedures and codes for printing material purchasing and outsource processing (4 credits) PPPROM508A				Establish development plan for electrostatic printing products (6 credits) 106264L5 (P. 106)													
	Understand the system and development of printing standards (3 credits) 106240L5 (P. 78)				Establish inline quality monitoring system for lithographic printing press (3 credits) 106265L5 (P. 107)													

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Functional Areas Competency Level	OM(Operation and management)	CT (Creativity)	PE (Prepress technology)	PR (Printing technology)	PO (Postpress technology)	EC(Estimation & costing)	CR (Customer/ Consumer relations)	IT (Information technology)	QM (Quality management)	PM (Printing machinery)	CO (Colour management)	PS (Product structure)	MT (Material technology)	GP (Green printing)	EM (e-Commerce)
	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency
5	Understand the merits and purposes of print standards (3 credits) 106241L5 (P. 79)			Establish effective anti-counterfeit printing and authentication system (6 credits) 106266L5 (P. 109)											
	Master resource requirements for implementing printing standards (6 credits) 106242L5 (P. 80)			Analyse development potentials of functional material printing products (6 credits) 106267L5 (P. 110)											
	Understand certification of printing standards (6 credits) 106243L5 (P. 81)														

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Functional Areas Competency Level	OM(Operation and management)	CT (Creativity)	PE (Prepress technology)	PR (Printing technology)	PO (Postpress technology)	EC(Estimation & costing)	CR (Customer/ Consumer relations)	IT (Information technology)	QM (Quality management)	PM (Printing machinery)	CO (Colour management)	PS (Product structure)	MT (Material technology)	GP (Green printing)	EM (e-Commerce)			
	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency			
6	Set short, medium and long term goals for printing enterprise (6 credits) PPPROM601A	Plan new product production line (6 credits) PPPRCT601A	Plan digital printing workflow system (6 credits) 106253L6 (P. 92)			Set production price for printing enterprise (6 credits) PPPRECE601A	Establish long-term business partnership with customer (6 credits) PPPRCR601A	Build an online transaction system catering for printing business (6 credits) 106277L6 (P. 123)	Set up print product total quality management system (6 credits) PPPRQM601A							Plan for the establishment of e-commerce business for a printing company (6 credits) 106304L6 (P. 158)		
	Plan printing enterprise operation structure and general codes (6 credits) PPPROM602A						Develop new market for printing services (6 credits) PPPRCR602A	Plan printing enterprise network (6 credits) PPPRIT602A									Establish financial management system for e-commerce in printing industry (6 credits) 106305L6 (P. 159)	
	Ensure effective enterprise operation by flexibly implementing Entrepreneurial Resources Planning (6 credits) 106244L6 (P. 82)							Develop server service (6 credits) PPPRIT603A										
	Master printing enterprise financing method and skills (6 credits) PPPROM604A																	
	Work out printing production plant design (6 credits) PPPROM605A																	

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Functional Areas Competency Level	OM(Operation and management)	CT (Creativity)	PE (Prepress technology)	PR (Printing technology)	PO (Postpress technology)	EC(Estimation & costing)	CR (Customer/ Consumer relations)	IT (Information technology)	QM (Quality management)	PM (Printing machinery)	CO (Colour management)	PS (Product structure)	MT (Material technology)	GP (Green printing)	EM (e-Commerce)	
	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	
6	Establish scale of operation for strategic business unit of printing enterprise (6 credits) PPPROM606A															
	Master skills for handling crises in printing enterprise (6 credits) PPPROM607A															

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Functional Areas	MN (Management)	ED (Editing)	AD (Art and design)	PD (Production)	MK (Marketing)	DS (Distribution and sales)	LO (Logistics/Warehousing/Transportation)	EP (E-publishing)	TM (Transmedia)
Competency Level	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency
2			Know layout design skills (3 credits) PPPUAD201A						
			Know expression skills for illustration (3 credits) PPPUAD202A						
			Know multimedia design skills (3 credits) 106317L2 (P. 174)						

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Functional Areas Competency Level	MN (Management)	ED (Editing)	AD (Art and design)	PD (Production)	MK (Marketing)	DS (Distribution and sales)	LO (Logistics/Warehousing/Transportation)	EP (E-publishing)	TM (Transmedia)
	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency
3		Know English usage (3 credits) PPPUED301A	Know printing processes (3 credits) PPPUAD301A	Know basic processing flow for printing (3 credits) 106320L3 (P. 178)		Understand sales and marketing skills (6 credits) 106321L3 (P. 180)	Warehouse management (6 credits) PPPULO301A		
		Know modern Chinese (3 credits) PPPUED302A	Understand book design skills (4 credits) PPPUAD302A			Understand the distribution workflow (6 credits) 106322L3 (P. 181)	Fleet management (3 credits) PPPULO302A		
		Know classical Chinese (3 credits) PPPUED303A	Understand cover design skills (4 credits) PPPUAD303A				Know flow of goods (3 credits) PPPULO303A		
		Know information retrieval (3 credits) PPPUED304A	Understand multimedia design skills (6 credits) 106318L3 (P. 175)						
		Know basic editing (3 credits) PPPUED305A							
		Know basic proofreading skills (3 credits) PPPUED306A							
		Know English-Chinese translation skills (3 credits) PPPUED307A							
		Know Chinese-English translation skills (3 credits) PPPUED308A							

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Functional Areas Competency Level	MN (Management)	ED (Editing)	AD (Art and design)	PD (Production)	MK (Marketing)	DS (Distribution and sales)	LO (Logistics/Warehousing/Transportation)	EP (E-publishing)	TM (Transmedia)
	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency
4	Know publishing (3 credits) PPPUMN401A	Master use of English (6 credits) PPPUED401A	Master various design skills (6 credits) 106319L4 (P. 176)	Understand processing for printing (4 credits) PPPUPD401A	Understand reader psychology (4 credits) PPPUMK401A	Book distribution (6 credits) PPPUDS401A	Transaction management (6 credits) PPPULO401A	Understand target reader groups of e-publishing (6 credits) 106323L4 (P. 183)	
	Know publishing related legislation (3 credits) PPPUMN402A	Master editing of practical writing (6 credits) PPPUED402A	Understand cultural features and the arts of different places (4 credits) PPPUAD402A	Understand edit process skills (4 credits) PPPUPD402A	Master book promotion strategy (6 credits) PPPUMK402A	Price management (6 credits) PPPUDS402A	Understand transportation operation (4 credits) PPPULO402A	Understand the industry chain of e-publishing (6 credits) 106324L4 (P. 184)	
		Master practical editing (6 credits) PPPUED403A						Understand production methodologies of different e-publishing materials (6 credits) 106325L4 (P. 185)	
		Master proofreading skills (6 credits) PPPUED404A						Understand new technology and concept affecting e-publishing development (6 credits) 106326L4 (P. 186)	
		Exercise English-Chinese translation skills (6 credits) PPPUED405A							
		Exercise Chinese-English translation skills (6 credits) PPPUED406A							

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Functional Areas Competency Level	MN (Management)	ED (Editing)	AD (Art and design)	PD (Production)	MK (Marketing)	DS (Distribution and sales)	LO (Logistics/Warehousing/Transportation)	EP (E-publishing)	TM (Transmedia)
	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency
5	Understand publishing enterprise management (6 credits) 106306L5 (P. 161)	Plan publication project management (4 credits) PPPUED501A	Develop brand series (3 credits) PPPUAD501A		Copyright trade (4 credits) PPPUMK501A	Set book publishing ratio according to category (4 credits) PPPUDS501A		Master integrated concept of e-publishing (3 credits) 106327L5 (P. 187)	Master audio creation concept (6 credits) 106353L5 (P. 215)
	Understand publishing (4 credits) PPPUMN502A	Implement publication project management plan (4 credits) PPPUED502A	Develop publishing design style (3 credits) PPPUAD502A		Formulate publishing market analysis plan (4 credits) PPPUMK502A	Formulate sales plan (4 credits) PPPUDS502A		Understand the relationship between copyright ordinance and e-publishing (3 credits) 106328L5 (P. 188)	Master audio production concept (6 credits) 106354L5 (P. 216)
	Understand publishing related legislation (4 credits) PPPUMN503A	Carry out electronic/online publication processing and production (6 credits) 106310L5 (P. 166)			Formulate and implement publishing market plan (4 credits) PPPUMK503A			Understand the analytics of digital marketing (3 credits) 106329L5 (P. 189)	Master video creation concept (6 credits) 106355L5 (P. 217)
	Set budget for publishing department (4 credits) PPPUMN504A	Execute electronic/online publishing (6 credits) 106311L5 (P. 167)						Establish e-book marketing plan (3 credits) 106330L5 (P. 190)	Master video production concept (6 credits) 106356L5 (P. 218)
	Understand the applications of e-commerce in publishing industry (6 credits) 106307L5 (P. 162)	Execute AV processing and production (6 credits) 106312L5 (P. 168)						Establish financial budget for e-publishing (3 credits) 106331L5 (P. 191)	Master the concept of comic creation (6 credits) 106357L5 (P. 219)

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List of Competencies for Publishing Industry Practitioner

Functional Areas	MN (Management)	ED (Editing)	AD (Art and design)	PD (Production)	MK (Marketing)	DS (Distribution and sales)	LO (Logistics/Warehousing/Transportation)	EP (E-publishing)	TM (Transmedia)
Competency Level	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency
5	Understand the global development trend of media and entertainment industries and their interactive shares in total market size (3 credits) 106308L5 (P. 163)	Execute AV publishing (6 credits) 106313L5 (P. 169)						Understand the customer data security for e-publishing (3 credits) 106332L5 (P. 192)	Master animation creation concept (6 credits) 106358L5 (P. 220)
		Master subject selection and commissioning in the editorial process of publishing (6 credits) 106314L5 (P. 170)						Master e-book formats (3 credits) 106333L5 (P. 193)	Master 3D special effects creation concept (6 credits) 106359L5 (P. 221)
								Understand terms of co-operation of e-bookshop (3 credits) 106334L5 (P. 194)	Master social media platform (6 credits) 106360L5 (P. 222)
								Master the function of Mark-up Language (ML) in e-book (6 credits) 106335L5 (P. 195)	Master advertisement creation concept (6 credits) 106361L5 (P. 223)
								Master the function of Cascading Style Sheets (CSS) in e-book (6 credits) 106336L5 (P. 196)	Master the concept in creation of digital entertainment (6 credits) 106362L5 (P. 224)

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List of Competencies for Publishing Industry Practitioner

Functional Areas Competency Level	MN (Management)	ED (Editing)	AD (Art and design)	PD (Production)	MK (Marketing)	DS (Distribution and sales)	LO (Logistics/Warehousing/Transportation)	EP (E-publishing)	TM (Transmedia)
	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency
5								Understand display characteristics of e-book readers (3 credits) 106337L5 (P. 197)	Master transmedia production workflow (6 credits) 106363L5 (P. 225)
								Master e-book production software (6 credits) 106338L5 (P. 198)	
								Master content conversion of e-publishing materials (3 credits) 106339L5 (P. 199)	

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List of Competencies for Publishing Industry Practitioner

Functional Areas Competency Level	MN (Management)	ED (Editing)	AD (Art and design)	PD (Production)	MK (Marketing)	DS (Distribution and sales)	LO (Logistics/Warehousing/Transportation)	EP (E-publishing)	TM (Transmedia)
	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency
6	Set short term and long term goals for publishing enterprise (6 credits) 106309L6 (P. 164)	Develop personal idea and style of publishing (6 credits) PPPUED601A						Establish development strategy for e-publishing (6 credits) 106340L6 (P. 200)	Understand creation and strategic direction of transmedia (6 credits) 106364L6 (P. 226)
	Set up publishing enterprise management system (6 credits) PPPUMN602A	Formulate publishing policy (6 credits) PPPUED602A						Understand business models of e-publishing (6 credits) 106341L6 (P. 201)	Understand the partnership models of transmedia (6 credits) 106365L6 (P. 227)
	Set balanced budget management system and operation code for publishing enterprise (6 credits) PPPUMN603A	Formulate copyright management strategy (6 credits) 106315L6 (P. 171)						Master digital rights management of e-publishing (6 credits) 106342L6 (P. 202)	
	Set departmental operation scheme, management structure and professional code for publishing enterprise (6 credits) PPPUMN604A	Set up copyright management scheme (6 credits) PPPUED604A						Master digital content management of e-publishing (6 credits) 106343L6 (P. 203)	
		Implement subject selection, commissioning and planning in trans-region publishing (6 credits) 106316L6 (P. 172)						Implement visual and user interface design of e-book (6 credits) 106344L6 (P. 204)	
								Implement structure design of e-book (6 credits) 106345L6 (P. 205)	

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List of Competencies for Publishing Industry Practitioner

Competency Level	MN (Management)	ED (Editing)	AD (Art and design)	PD (Production)	MK (Marketing)	DS (Distribution and sales)	LO (Logistics/Warehousing/Transportation)	EP (E-publishing)	TM (Transmedia)
	MN	ED	AD	PD	MK	DS	LO	EP	TM
	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency	Units of competency
6								Innovate products and services for digital market (3 credits) 106346L6 (P. 207)	
								Formulate promotion strategies for digital market (6 credits) 106347L6 (P. 208)	
								Execute workflow management of e-publishing (3 credits) 106348L6 (P. 209)	
								Master editorial management of e-publishing (6 credits) 106349L6 (P. 210)	
								Master metadata and bibliography of e-book (3 credits) 106350L6 (P. 211)	
								Master production software for e-publishing materials (6 credits) 106351L6 (P. 212)	
								Master standards of automation for e-publishing (3 credits) 106352L6 (P. 213)	

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Printing Industry Practitioners

Units of Competencies for Operation and Management

<u>Level</u>	<u>Units of Competency</u>	<u>Code</u>	<u>Credit</u>	<u>Page</u>
1	Know printing related legislation	106232L1	3	70
	Know printing corporate structure	PPPROM102A	3	
	Know work and production flow of printing enterprise	PPPROM103A	3	
2	Understand computerised printing processes	106233L2	3	71
	Know printing logistics	PPPROM202A	3	
3	Understand printing related legislations	106234L3	6	72
	Know digital printing procedures	106235L3	6	73
	Understand the techniques for controlling print production processes	106236L3	6	74
	Understand printing production management	106237L3	6	75
	Understand logistics control for printing	PPPROM305A	3	
	Understand personnel management	PPPROM306A	3	
	Master printing related legislations	106238L4	6	76
4	Understand techniques for controlling digital flow	PPPROM402A	3	
	Master the electronic information system for printing	106239L4	6	77
	Master printing production flow planning and management techniques	PPPROM404A	4	
	Master logistic control techniques for printing	PPPROM405A	4	
	Master skills for printing professionals training and management	PPPROM406A	4	
	Adopt income based expenditure management and operation code for printing enterprise	PPPROM407A	4	
	5	Set departmental budget	PPPROM501A	4
Set budget balancing management system and operation code for printing enterprise		PPPROM502A	4	
Set departmental operation plan, management structure and professional code for printing enterprise		PPPROM503A	4	
Effect human resources management		PPPROM504A	4	

	Set up digital flow system	PPPROM505A	6	
	Master techniques for load balancing between production processes	PPPROM506A	6	
	Master establishment of computerized warehousing system for printing materials and print products	PPPROM507A	6	
	Set departmental procedures and codes for printing material purchasing and outsource processing	PPPROM508A	4	
	Understand the system and development of printing standards	106240L5	3	78
	Understand the merits and purposes of print standards	106241L5	3	79
	Master resource requirements for implementing printing standards	106242L5	6	80
	Understand certification of printing standards	106243L5	6	81
6	Set short, medium and long term goals for printing enterprise	PPPROM601A	6	
	Plan printing enterprise operation structure and general codes	PPPROM602A	6	
	Ensure effective enterprise operation by flexibly implementing Entrepreneurial Resources Planning	106244L6	6	82
	Master printing enterprise financing method and skills	PPPROM604A	6	
	Work out printing production plant design	PPPROM605A	6	
	Establish scale of operation for strategic business unit of printing enterprise	PPPROM606A	6	
	Master skills for handling crises in printing enterprise	PPPROM607A	6	

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Printing Industry Practitioners
Units of Competencies for Creativity

<u>Level</u>	<u>Units of Competency</u>	<u>Code</u>	<u>Credit</u>	<u>Page</u>
1	Know basic design	PPPRCT101A	3	
2	Know design skills	PPPRCT201A	3	
3	Know cultural studies	PPPRCT301A	3	
	Understand design	PPPRCT302A	3	
4	Understand printing design	PPPRCT401A	3	
5	Master cross-media, cross-culture and cross-product design elements	PPPRCT501A	6	
6	Plan new product production line	PPPRCT601A	6	

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Printing Industry Practitioners

Units of Competencies for Prepress Technology

<u>Level</u>	<u>Units of Competency</u>	<u>Code</u>	<u>Credit</u>	<u>Page</u>
1	Use Chinese and English input techniques	PPPRPE101A	3	
	Know computer page composition techniques	PPPRPE102A	3	
	Know computer graphics skills	PPPRPE103A	3	
	Know computer retouching techniques	PPPRPE104A	3	
	Know digital output techniques	106245L1	6	84
2	Master Chinese computer input techniques	PPPRPE201A	3	
	Understand computer page composition methods	PPPRPE202A	3	
	Understand computer graphics methods	PPPRPE203A	3	
	Understand computer retouching methods	PPPRPE204A	3	
	Understand manual assembly / plate making methods	PPPRPE205A	3	
	Know basic digital photography techniques	106246L2	6	85
	Know basic techniques for computer scanning and image input	PPPRPE207A	3	
	Know preflight techniques	PPPRPE208A	3	
	3	Understand digital photography technology	PPPRPE301A	3
Master manual assembly / plate making techniques		PPPRPE302A	6	
Master computer graphics techniques		PPPRPE303A	6	
Master computer retouching techniques		PPPRPE304A	6	
Master computer page composition techniques		PPPRPE305A	6	
Understand preflight techniques		106247L3	6	86
Understand computer scanning and image input technology		PPPRPE307A	3	
Understand computer page imposition technology		PPPRPE308A	3	
Understand CTP (computer-to-plate) technology		106248L3	6	87

	Understand digital file management techniques	106249L3	6	88
4	Master digital prepress technology	106250L4	6	89
	Master application of computer image input	PPPRPE402A	6	
	Master digital output techniques	106251L4	6	90
	Understand digital printing flow system	PPPRPE404A	6	
5	Plan facilities configuration and development of prepress department	PPPRPE501A	4	
	Master upstream and downstream coordination in prepress department	PPPRPE502A	4	
	Master horizontal coordination of prepress department	PPPRPE503A	4	
	Plan remote prepress processing flow	PPPRPE504A	4	
	Master digital printing flow system adoption and support	PPPRPE505A	4	
	Master uniform calibration in prepress	106252L5	6	91
6	Plan digital printing workflow system	106253L6	6	92

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Units of Competencies for Printing Technology

<u>Level</u>	<u>Units of Competency</u>	<u>Code</u>	<u>Credit</u>	<u>Page</u>
1	Know basic printing technology	106254L1	3	94
	Know basic operation of lithographic printing press for paper feeding and discharging and registration	PPRPR102A	3	
	Know adjustment and operation of ink roller, dampening, plate, rubber and pressure systems of lithographic printing press	PPRPR103A	3	
	Know basic press proof inspection	106255L1	3	95
	Know screen printing operation	PPRPR105A	3	
	Know flexographic printing operation	PPRPR106A	3	
2	Understand application of printing technology	106256L2	3	96
	Master operation of lithographic printing press for paper feeding, delivery and registration	106257L2	6	97
	Master techniques for adjusting and operating ink roller, dampening, plate, rubber and pressure systems of lithographic printing press	PPRPR203A	3	
	Understand screen printing procedures	PPRPR204A	3	
	Master ink mixing techniques	PPRPR205A	3	
	Understand flexographic printing procedures	PPRPR206A	3	
3	Master printing technology	PPRPR301A	3	
	Understand digital printing technology	106258L3	6	99
	Master lithographic printing technology	PPRPR303A	6	
	Master press proof inspection	PPRPR304A	3	
4	Master printing technology application	PPRPR401A	6	
	Understand special printing techniques	PPRPR402A	3	
	Understand 3D Lenticular Printing technology	106259L4	6	100
5	Plan facilities configuration and development of printing department	PPRPR501A	4	
	Master upstream and downstream coordination for printing department	PPRPR502A	4	

Master horizontal coordination of printing department	PPRPR503A	4	
Establish printing press calibration procedure in compliance with international printing standard	106260L5	6	101
Establish development plan for inkjet printing products	106261L5	6	102
Establish development plan for large format inkjet printing products	106262L5	6	103
Establish development plan for variable data printing technology	106263L5	6	105
Establish development plan for electrostatic printing products	106264L5	6	106
Establish inline quality monitoring system for lithographic printing press	106265L5	3	107
Establish effective anti-counterfeit printing and authentication system	106266L5	6	109
Analyse development potentials of functional material printing products	106267L5	6	110

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Units of Competencies for Postpress Technology

<u>Level</u>	<u>Units of Competency</u>	<u>Code</u>	<u>Credit</u>	<u>Page</u>
1	Know basic postpress technology	PPRPO101A	3	
2	Understand the applications of postpress technology	106268L2	3	112
3	Understand postpress technological control	PPRPO301A	3	
4	Understand requirements for postpress technology and techniques for controlling	PPRPO401A	3	
5	Plan facilities configuration and development of postpress department	PPRPO501A	4	
	Master upstream and downstream coordination for postpress department	PPRPO502A	4	
	Master horizontal coordination of postpress department	PPRPO503A	4	
	Understand inline postpress technology for variable data printing	106269L5	3	113
	Understand inline postpress technology	106270L5	3	114

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Units of Competencies for Estimation and Costing

<u>Level</u>	<u>Units of Competency</u>	<u>Code</u>	<u>Credit</u>	<u>Page</u>
2	Know basic printing cost estimation	PPPREC201A	3	
3	Understand printing cost estimation	PPPREC301A	3	
4	Understand print costing	PPPREC401A	3	
	Master use of print costing	PPPREC402A	6	
5	Master cost and price estimation of newly developed print products	PPPREC501A	6	
	Master set up and maintenance of computerized pricing system for printing	PPPREC502A	6	
6	Set production price for printing enterprise	PPPREC601A	6	

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Units of Competencies for Customer/Consumer Relations

<u>Level</u>	<u>Units of Competency</u>	<u>Code</u>	<u>Credit</u>	<u>Page</u>
1	Understand basic Chinese terminology	106271L1	3	116
2	Understand the applications of Chinese terminology	106272L2	3	117
	Know basic customer services	PPPRCR202A	3	
3	Master English/Chinese communication in printing industry	PPPRCR301A	4	
	Understand customer service requirements and methods	PPPRCR302A	3	
	Understand marketing skills	PPPRCR303A	3	
4	Master use of marketing skills	PPPRCR401A	6	
	Master customer service skills	PPPRCR402A	4	
5	Master annual turnover and profit targets attainment	PPPRCR501A	6	
	Formulate print product marketing strategies	106273L5	6	118
	Master customer printing contract and service plan writing	PPPRCR503A	6	
6	Establish long-term business partnership with customer	PPPRCR601A	6	
	Develop new market for printing services	PPPRCR602A	6	

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Units of Competencies for Information Technology

<u>Level</u>	<u>Units of Competency</u>	<u>Code</u>	<u>Credit</u>	<u>Page</u>
1	Know office software operation	PPPRIT101A	3	
2	Understand office software application	PPPRIT201A	3	
3	Understand basic computer and network technology	PPPRIT301A	3	
	Understand Internet	PPPRIT302A	3	
	Understand basic programming and internet publishing techniques	106274L3	6	120
4	Master use of computer and network	PPPRIT401A	3	
	Understand Internet technology	106275L4	6	121
	Know server services	PPPRIT403A	3	
	Know use of database system	PPPRIT404A	3	
	Know World Wide Web server programming techniques	PPPRIT405A	3	
	Master the techniques for publishing digital audio-visual contents over the internet	106276L4	6	122
5	Understand printing server service application	PPPRIT501A	3	
	Understand use of database system on Internet	PPPRIT502A	3	
	Understand printing network planning	PPPRIT503A	3	
6	Build an online transaction system catering for printing business	106277L6	6	123
	Plan printing enterprise network	PPPRIT602A	6	
	Develop server service	PPPRIT603A	6	

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Units of Competencies for Quality Management

<u>Level</u>	<u>Units of Competency</u>	<u>Code</u>	<u>Credit</u>	<u>Page</u>
1	Know basic print quality management	PPPRQM101A	3	
2	Understand printing quality management	106278L2	3	125
3	Understand print quality control and management	106279L3	6	126
4	Master print quality control and management skills and application	PPPRQM401A	6	
5	Master skills for resolving and handling customer complaint concerning print quality	PPPRQM501A	6	
	Employ printing standard in establishing a coherent quality assurance mechanism	106280L5	6	127
6	Set up print product total quality management system	PPPRQM601A	6	

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Units of Competencies for Printing Machinery

<u>Level</u>	<u>Units of Competency</u>	<u>Code</u>	<u>Credit</u>	<u>Page</u>
1	Know the basic operation of printing machinery	106281L1	3	129
	Know basic printing machinery maintenance	PPPRPM102A	3	
2	Understand printing machinery maintenance	106282L2	3	130
3	Understand workings of printing machinery	PPPRPM301A	3	
4	Master use of printing machinery	PPPRPM401A	6	

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Units of Competencies for Colour Management

<u>Level</u>	<u>Units of Competency</u>	<u>Code</u>	<u>Credit</u>	<u>Page</u>
1	Know basic colour handling	PPPRCO101A	3	
2	Understand colour technology application	PPPRCO201A	3	
	Know digital colour management	PPPRCO202A	3	
3	Understand digital colour management techniques	PPPRCO301A	3	
4	Master application of digital colour management	PPPRCO401A	6	
5	Implement color management standards	106283L5	6	132

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Units of Competencies for Product Structure

<u>Level</u>	<u>Units of Competency</u>	<u>Code</u>	<u>Credit</u>	<u>Page</u>
1	Know broad categories of print product	PPRPS101A	3	
2	Understand composition of print products	PPRPS201A	3	
	Understand digital storage media	106284L2	3	134
3	Understand composition of major paper print products	PPRPS301A	3	
	Understand use of digital media carrier	PPRPS302A	3	
4	Know structure of special print products	PPRPS401A	3	

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Units of Competencies for Material Technology

<u>Level</u>	<u>Units of Competency</u>	<u>Code</u>	<u>Credit</u>	<u>Page</u>
1	Know the properties of major printing materials	106285L1	3	136
2	Understand the applications of printing materials	106286L2	3	137
3	Understand the structures of printing materials	106287L3	6	138
4	Understand printing material testing	106288L4	6	139
5	Adopt printing material standards	106289L5	6	140

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Units of Competencies for Green Printing

<u>Level</u>	<u>Units of Competency</u>	<u>Code</u>	<u>Credit</u>	<u>Page</u>
4	Master the calculation of carbon footprints	106290L4	3	142
	Master print production workflows that meet the international environmental standards	106291L4	6	143
	Master the calculation of electronic/ digital media's carbon footprints	106292L4	3	144
5	Formulate corporate environmental policies	106293L5	3	145
	Formulate policies on procurement of environmentally friendly papers	106294L5	6	146
	Formualte corporate policies on procurement and use of green printing materials	106295L5	3	147

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Units of Competencies for e-Commerce

<u>Level</u>	<u>Units of Competency</u>	<u>Code</u>	<u>Credit</u>	<u>Page</u>
4	Understand the deployment of e-commerce in printing industry	106296L4	3	149
	Understand the customer services of e-commerce in printing industry	106297L4	3	150
5	Understand order fulfillment system for e-commerce in printing industry	106298L5	3	151
	Understand online store for e-commerce in printing industry	106299L5	6	152
	Establish marketing plan and sell the non-paper based print products through e-commerce in printing industry	106300L5	3	153
	Establish network security system for e-commerce in printing industry	106301L5	3	154
	Establish payment gateway system for e-commerce in printing industry	106302L5	3	155
	Establish marketing plan for e-commerce in printing industry	106303L5	6	157
6	Plan for the establishment of e-commerce business for a printing company	106304L6	6	158
	Establish financial management system for e-commerce in printing industry	106305L6	6	159

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Publishing Industry Practitioners
Units of Competencies for Management

<u>Level</u>	<u>Units of Competency</u>	<u>Code</u>	<u>Credit</u>	<u>Page</u>
4	Know publishing	PPPUMN401A	3	
	Know publishing related legislation	PPPUMN402A	3	
5	Understand publishing enterprise management	106306L5	6	161
	Understand publishing	PPPUMN502A	4	
	Understand publishing related legislation	PPPUMN503A	4	
	Set budget for publishing department	PPPUMN504A	4	
	Understand the applications of e-commerce in publishing industry	106307L5	6	162
	Understand the global development trend of media and entertainment industries and their interactive shares in total market size	106308L5	3	163
6	Set short term and long term goals for publishing enterprise	106309L6	6	164
	Set up publishing enterprise management system	PPPUMN602A	6	
	Set balanced budget management system and operation code for publishing enterprise	PPPUMN603A	6	
	Set departmental operation scheme, management structure and professional code for publishing enterprise	PPPUMN604A	6	

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Publishing Industry Practitioners

Units of Competencies for Editing

<u>Level</u>	<u>Units of Competency</u>	<u>Code</u>	<u>Credit</u>	<u>Page</u>
3	Know English usage	PPPUED301A	3	
	Know modern Chinese	PPPUED302A	3	
	Know classical Chinese	PPPUED303A	3	
	Know information retrieval	PPPUED304A	3	
	Know basic editing	PPPUED305A	3	
	Know basic proofreading skills	PPPUED306A	3	
	Know English-Chinese translation skills	PPPUED307A	3	
	Know Chinese-English translation skills	PPPUED308A	3	
4	Master use of English	PPPUED401A	6	
	Master editing of practical writing	PPPUED402A	6	
	Master practical editing	PPPUED403A	6	
	Master proofreading skills	PPPUED404A	6	
	Exercise English-Chinese translation skills	PPPUED405A	6	
	Exercise Chinese-English translation skills	PPPUED406A	6	
5	Plan publication project management	PPPUED501A	4	
	Implement publication project management plan	PPPUED502A	4	
	Carry out electronic/online publication processing and production	106310L5	6	166
	Execute electronic/online publishing	106311L5	6	167
	Execute AV processing and production	106312L5	6	168
	Execute AV publishing	106313L5	6	169

	Master subject selection and commissioning in the editorial process of publishing	106314L5	6	170
6	Develop personal idea and style of publishing	PPPUED601A	6	
	Formulate publishing policy	PPPUED602A	6	
	Formulate copyright management strategy	106315L6	6	171
	Set up copyright management scheme	PPPUED604A	6	
	Implement subject selection, commissioning and planning in trans-region publishing	106316L6	6	172

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Printing Industry Practitioners
Units of Competencies for Art and Design

<u>Level</u>	<u>Units of Competency</u>	<u>Code</u>	<u>Credit</u>	<u>Page</u>
2	Know layout design skills	PPPUAD201A	3	
	Know expression skills for illustration	PPPUAD202A	3	
	Know multimedia design skills	106317L2	3	174
3	Know printing processes	PPPUAD301A	3	
	Understand book design skills	PPPUAD302A	4	
	Understand cover design skills	PPPUAD303A	4	
	Understand multimedia design skills	106318L3	6	175
4	Master various design skills	106319L4	6	176
	Understand cultural features and the arts of different places	PPPUAD402A	4	
5	Develop brand series	PPPUAD501A	3	
	Develop publishing design style	PPPUAD502A	3	

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Publishing Industry Practitioners
Units of Competencies for Production

<u>Level</u>	<u>Units of Competency</u>	<u>Code</u>	<u>Credit</u>	<u>Page</u>
3	Know basic processing flow for printing	106320L3	3	178
4	Understand processing for printing	PPPUPD401A	4	
	Understand edit process skills	PPPUPD402A	4	

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Publishing Industry Practitioners
Units of Competencies for Marketing

<u>Level</u>	<u>Units of Competency</u>	<u>Code</u>	<u>Credit</u>	<u>Page</u>
4	Understand reader psychology	PPPUMK401A	4	
	Master book promotion strategy	PPPUMK402A	6	
5	Copyright trade	PPPUMK501A	4	
	Formulate publishing market analysis plan	PPPUMK502A	4	
	Formulate and implement publishing market plan	PPPUMK503A	4	

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Publishing Industry Practitioners

Units of Competencies for Distribution and Sales

<u>Level</u>	<u>Units of Competency</u>	<u>Code</u>	<u>Credit</u>	<u>Page</u>
3	Understand sales and marketing skills	106321L3	6	180
	Understand the distribution workflow	106322L3	6	181
4	Book distribution	PPPUDS401A	6	
	Price management	PPPUDS402A	6	
5	Set book publishing ratio according to category	PPPUDS501A	4	
	Formulate sales plan	PPPUDS502A	4	

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Publishing Industry Practitioners

Units of Competencies for Logistics/ Warehousing/ Transportation

<u>Level</u>	<u>Units of Competency</u>	<u>Code</u>	<u>Credit</u>	<u>Page</u>
3	Warehouse management	PPPULO301A	6	
	Fleet management	PPPULO302A	3	
	Know flow of goods	PPPULO303A	3	
4	Transaction management	PPPULO401A	6	
	Understand transportation operation	PPPULO402A	4	

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Publishing Industry Practitioners

Units of Competencies for e-Publishing

<u>Level</u>	<u>Unit of Competency</u>	<u>Code</u>	<u>Credit</u>	<u>Page</u>
4	Understand target reader groups of e-publishing	106323L4	6	183
	Understand the industry chain of e-publishing	106324L4	6	184
	Understand production methodologies of different e-publishing materials	106325L4	6	185
	Understand new technology and concept affecting e-publishing development	106326L4	6	186
5	Master integrated concept of e-publishing	106327L5	3	187
	Understand the relationship between copyright ordinance and e-publishing	106328L5	3	188
	Understand the analytics of digital marketing	106329L5	3	189
	Establish e-book marketing plan	106330L5	3	190
	Establish financial budget for e-publishing	106331L5	3	191
	Understand the customer data security for e-publishing	106332L5	3	192
	Master e-book formats	106333L5	3	193
	Understand terms of co-operation of e-bookshop	106334L5	3	194
	Master the function of Mark-up Language (ML) in e-book	106335L5	6	195
	Master the function of Cascading Style Sheets (CSS) in e-book	106336L5	6	196
	Understand display characteristics of e-book readers	106337L5	3	197
	Master e-book production software	106338L5	6	198
	Master content conversion of e-publishing materials	106339L5	3	199
6	Establish development strategy for e-publishing	106340L6	6	200
	Understand business models of e-publishing	106341L6	6	201

Master digital rights management of e-publishing	106342L6	6	202
Master digital content management of e-publishing	106343L6	6	203
Implement visual and user interface design of e-book	106344L6	6	204
Implement structure design of e-book	106345L6	6	205
Innovate products and services for digital market	106346L6	3	207
Formulate promotion strategies for digital market	106347L6	6	208
Execute workflow management of e-publishing	106348L6	3	209
Master editorial management of e-publishing	106349L6	6	210
Master metadata and bibliography of e-book	106350L6	3	211
Master production software for e-publishing materials	106351L6	6	212
Master standards of automation for e-publishing	106352L6	3	213

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Publishing Industry Practitioners

Units of Competencies for Transmedia Service

<u>Level</u>	<u>Unit of Competency</u>	<u>Code</u>	<u>Credit</u>	<u>Page</u>
5	Master audio creation concept	106353L5	6	215
	Master audio production concept	106354L5	6	216
	Master video creation concept	106355L5	6	217
	Master video production concept	106356L5	6	218
	Master the concept of comic creation	106357L5	6	219
	Master animation creation concept	106358L5	6	220
	Master 3D special effects creation concept	106359L5	6	221
	Master social media platform	106360L5	6	222
	Master advertisement creation concept	106361L5	6	223
	Master the concept in creation of digital entertainment	106362L5	6	224
	Master transmedia production workflow	106363L5	6	225
6	Understand creation and strategic direction of transmedia	106364L6	6	226
	Understand the partnership models of transmedia	106365L6	6	227

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Printing and Publishing Industries

“Specification for Competency Standards”

First Edition Supplement

(Covering revised or new units of competency only)

Printing Industry

Functional Areas of Operation and Management

Contents of Units of Competency

1. Title	Know printing related legislation
2. Code	106232L1
3. Range	Perform day-to-day duties in compliance with the requirements of the laws and laid-down instructions of the printing company.
4. Level	1
5. Credit	3 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1 Know printing related legislation.</p> <p>6.1.1. Know intellectual property laws, including the definition of copyright, the importance of copyright protection to social development, types of works qualified for copyright protection, and the criminal liability for copyright infringement.</p> <p>6.1.2. Understand key provisions of Occupational Safety and Health Ordinance that are pertaining to the printing industry, including the scope of protection under the Ordinance, one’s role and obligations, and details of compensation.</p> <p>6.1.3. Know key provisions of equal opportunities laws that are pertaining to the printing industry, including the scope of protection, personal responsibilities and criminal liability for violating other people’s rights to equal opportunities provided under such laws.</p> <p>6.1.4. Know anti-graft laws pertaining to the printing industry, including the importance of a corruption-free society, acts that constitute as “offering bribes” and “accepting bribes”, and the relevant criminal liability that may be imposed on such acts.</p> <p>6.1.5. Know provisions of labour laws that are pertaining to the printing industry and protecting labour rights.</p> <p>6.1.6. Know environmental protection laws pertaining to the printing industry, including Waste Disposal (Chemical Waste) Regulations, and modes of operation that help to reduce material waste.</p> <p>6.2 With the above knowledge, be able to perform day-to-day duties and protect one’s own rights by following laid-down instructions, observing intellectual property laws, the Occupational Safety and Health Ordinance, equal opportunities laws, anti-graft laws and labour laws.</p> <p>6.3 Be able to perform day-to-day duties in compliance with the requirements of the laws and laid-down instructions.</p>
7. Assessment Criteria	The integrated outcome requirement of this unit of competency: (i) Be able to perform day-to-day duties in compliance with the requirements of the laws and laid-down instructions.
8. Remarks	This unit of competency is applicable to printing practitioners in general. °

1. Title	Understand computerised printing processes
2. Code	106233L2
3. Range	Be able to use the electronic information management system to assist in day-to-day operations, including performing cost estimation for printing, preparing quotations and job sheets, and handling inventory records of printing materials and semi-finished products while following laid-down procedures and instructions for the operations, production and material inventory departments.
4. Level	2
5. Credit	3 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1 Know the electronic information management system and related data confidentiality guidelines of the printing company.</p> <p>6.1.1. Know the workflow of the printing company.</p> <p>6.1.2. Understand the operating principles and functions of the printing company's electronic information management system.</p> <p>6.1.3. Know printing data confidentiality guidelines.</p> <p>6.2 Be able to use the electronic information management system to perform cost estimation for printing, prepare quotations and job sheets, and handle inventory records of papers, printing materials and semi-finished products.</p> <p>6.3 Be able to follow the printing company's data confidentiality guidelines at work.</p>
7. Assessment Criteria	<p>The integrated outcome requirement of this unit of competency:</p> <p>(i) Be able to use the electronic information management system to perform cost estimation for printing, prepare quotations and job sheets, and handle inventory records of printing materials and semi-finished products while following laid-down procedures and instructions.</p>
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has basic knowledge of print production workflow.

1. Title	Understand printing related legislations
2. Code	106234L3
3. Range	Assist in formulating and adopting departmental guidelines and codes of practice in accordance with the requirements of the laws and laid-down instructions for the printing company.
4. Level	3
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1 Understand printing related legislations</p> <p>6.1.1. Understand corporate responsibilities under intellectual property laws.</p> <p>6.1.2. Know the protected grounds under general printing and publishing contract laws and trade practices.</p> <p>6.1.3. Know Mainland China’s customs declaration laws, procedures and fees, including key provisions of Chinese customs declaration law pertaining to importing print products and the types of print products that are allowed to be imported into Mainland China.</p> <p>6.1.4. Understand printing related legislations, including the Occupational Health and Safety Ordinance, environmental laws, equal opportunities laws, anti-graft laws and labour laws, and understand their relevance to the company.</p> <p>6.2 Well versed in the above legislations and perform day-to-day duties in compliance with the relevant provisions of these legislations.</p> <p>6.3 Assist the company in drawing up work instructions and codes of practice.</p> <p>6.3.1 Assist in drawing up codes of practice in order to prevent staff from committing any acts of copyright infringement.</p> <p>6.3.2 Assist in drawing up work instructions in order to ensure staff’s compliance with printing and publishing contract laws and trade practices.</p> <p>6.3.3 Assist in drawing up departmental guidelines and instructions to ensure staff’s compliance with intellectual property laws, contract laws, the Occupational Health and Safety Ordinance, equal opportunities laws, anti-graft laws, labour laws and customs declaration laws of Mainland China, etc.</p>
7. Assessment Criteria	The integrated outcome requirement of this unit of competency: (i) Be able to assist in drawing up and implementing departmental guidelines and instructions based on laid-down instructions and related legislations.
8. Remarks	The credit value for this unit of competency is based on the assumption that the learner has basic knowledge of printing related legislations.

1. Title	Know digital printing procedures
2. Code	106235L3
3. Range	Assist clients in choosing and arranging for a suitable printing production workflow based on the characteristics of the print product and cost considerations and perform other related tasks in sales or customer services department.
4. Level	3
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1 Know the difference between digital and conventional printing workflows</p> <p>6.1.1. Know the technology and production workflow of conventional and digital printing.</p> <p>6.1.2. Know the characteristics, applications and operation procedures of digital printing.</p> <p>6.2 Based on the characteristics of the print product and cost considerations, assist clients in choosing and arranging for a suitable printing workflow that meets the terms of their orders.</p> <p>6.3 Be able to choose and arrange for a suitable printing production workflow based on the employing company's internal production schedule, as well as the print product's specifications, delivery time, and cost considerations.</p>
7. Assessment Criteria	<p>The integrated outcome requirement of this unit of competency:</p> <p>(i) Be able to assist in choosing and arranging for a suitable printing production workflow based on the characteristics of the print product and cost considerations.</p>
8. Remarks	The credit value for this unit of competency is based on the assumption that the learner has basic knowledge of digital printing.

1. Title	Understand the techniques for controlling print production processes
2. Code	106236L3
3. Range	Be able to use the electronic information management system to assist in making production plans, assigning tasks, preparing costings and compiling statistical reports, etc. for the printing company.
4. Level	3
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1 Know CIP4 (Integration of Processes in Prepress, Press and Postpress) / JDF (Job Definition Format) workflow.</p> <p>6.1.1. Understand the CIP4 workflow systems of various departments of the employing company.</p> <p>6.2 Use the printing company's electronic information management system to assist in making production plans, assigning tasks, preparing costings and compiling statistical reports, etc.</p> <p>6.3 Assist in monitoring the operation of the electronic information management system and coordination between different departments.</p>
7. Assessment Criteria	<p>The integrated outcome requirement of this unit of competency:</p> <p>(i) Be able to use the printing company's electronic information management system to assist in making production plans, assigning tasks, preparing costings and compiling statistical reports.</p>
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has basic knowledge of CIP4 workflow system.

1. Title	Understand printing production management
2. Code	106237L3
3. Range	Assist in implementing production, repair and maintenance plans in accordance with the printing department's operational guidelines, instructions and standards.
4. Level	3
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1 Know management practices that boost production efficiency.</p> <p>6.1.1. Know effective production planning methods.</p> <p>6.1.2. Understand routine repair and maintenance plans for production plants and printing machinery.</p> <p>6.1.3. Know the trend and development of digital printing technology.</p> <p>6.1.4. Understand digital printing machinery, including the use of hardware and software and related maintenance plans.</p> <p>6.1.5. Understand the trend and development of integrative management of conventional and digital printing operations.</p> <p>6.1.6. Know the trend and development of printing technology, including printing techniques, materials, software/ hardware, etc.</p> <p>6.1.7. Understand operational guidelines, instructions and standards.</p> <p>6.2 With the above knowledge, assist the supervisor in implementing operational guidelines, instructions and standards.</p> <p>6.3 Be able to assist the supervisor in effectively managing the routine repair and maintenance of production plants and printing machinery in accordance with the company's laid-down operational guidelines, instructions and standards.</p>
7. Assessment Criteria	<p>The integrated outcome requirement of this unit of competency:</p> <p>(i) Be able to assist in the implementation of the repair and maintenance plans for production plants and printing machinery, as well as the department's operational guidelines, instructions and standards.</p>
8. Remarks	The credit value for this unit of competency is based on the assumption that the learner has basic knowledge of printing production workflow.

1. Title	Master printing related legislations
2. Code	106238L4
3. Range	Draw up and implement work guidelines and instructions for day-to-day operations in accordance with the requirements of the laws and established policies of the printing company.
4. Level	4
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1 Well versed in contract laws related to printing and publishing industries.</p> <p>6.1.1. Understand work instructions and guidelines for compliance with contract laws related to printing and publishing industries.</p> <p>6.1.2. Understand the types and modes of operation of printing companies.</p> <p>6.1.3. Understand the customs declaration regulations and procedures that applied to printing companies in Mainland China.</p> <p>6.1.4. Understand labour laws that protect the employees of printing and publishing industries in Mainland China and Hong Kong.</p> <p>6.1.5. Understand the key provisions of international, Mainland and Hong Kong environmental laws, and put a great emphasis on the importance of environmental protection to Earth's ecosystem and the future of mankind.</p> <p>6.1.6. Understand how the printing company can meet the requirements of international, Mainland and Hong Kong environmental laws.</p> <p>6.1.7. Master the penalties for violating the environmental laws in international, Mainland China and Hong Kong.</p> <p>6.1.8. Understand the key provisions of and scope of protection and penalties under the occupational health and safety laws in Mainland China and Hong Kong.</p> <p>6.1.9. Clearly understand how the printing company can fulfill the requirements of occupational health and safety laws in Mainland China and Hong Kong.</p> <p>6.2 Draw up work instructions and staff guidelines based on contract laws related to printing and publishing industries.</p> <p>6.2.1 Draw up work instructions and staff guidelines for day-to-day operations based on the company's established corporate policies, the intellectual property laws in international, Mainland China and Hong Kong, occupational health and safety laws, and labour laws.</p> <p>6.3 Be able to coordinate, supervise and manage the compliance of work instructions and staff guidelines by staff members.</p>
7. Assessment	<p>The integrated outcome requirement of this unit of competency :</p> <p>(i) Be able to draw up and implement work instructions and guidelines for day-to-day operations by following laid-down instructions and requirements of related legislations.</p>
8. Remarks	The credit value for this unit of competency is based on the assumption that the learner has basic knowledge of printing related legislations.

1. Title	Master the electronic information system for printing
2. Code	106239L4
3. Range	Assist the information technology department in establishing and adopting an electronic information management system, solving problems, arise from using the system, and train staff in operating the system.
4. Level	4
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1 Understand CIP4 (Integration of Processes in Prepress, Press and Postpress) / JDF (Job Definition Format) print production workflow, etc.</p> <p>6.1.1. Master CIP4 / JDF workflow's applied technology and work procedures.</p> <p>6.1.2. Master troubleshooting for CIP4 / JDF workflow to find solutions for operational problems.</p> <p>6.1.3. Master the development trends of CIP4 production model in printing industry.</p> <p>6.1.4. Acquire knowledge of electronic information systems used in printing companies.</p> <p>6.2 With the above knowledge, be able to assist in the establishment and implementation of an electronic information system for the printing company.</p> <p>6.3 Be able to train staff to securely perform electronic information management and digitised production management for the printing company, and assist in solving problems arising from the malfunctioning of the electronic information system.</p>
7. Assessment Criteria	<p>The integrated outcome requirement of this unit of competency:</p> <p>(i) Assist the printing company in establishing and implementing an electronic information management system, solving operational problems of the system and train staff to operate the system.</p>
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has basic knowledge of electronic printing information management.

1. Title	Understand the system and development of printing standards
2. Code 2. 編號	106240L5
3. Range 3. 應用範圍	Europe and the USA started to take printing standards seriously in the 1980s. The International Standards Organization (ISO)'s Technical Committee (TC) put printing standards back on the table at the end of 1980s, a time when Japan and China also embarked on their own standardisation effort. The scope of standardisation runs the gamut of printing-related aspects, covering everything from printing materials to machinery, technology, workflow, quality and management. These aspects have seen great advancement in terms of practicality and refinement as the standards continue to mature. Major countries have also developed different systems of printing standards, in addition to international standards. By studying the development and features of different systems of standards, the printing company can make better plan for the development of its internal standards.
4. Level	5
5. Credit	3 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1 Know the background to the development of standardisation</p> <p>6.1.1. In the 1980s, the USA started working on the development of SNAP and SWOP standards. At the same time, Fogra of Germany was pushing the same thing in Europe. As the ISO/TC130 meetings were reconvened at the end of 1980s, Japan established a national committee to pursue the same goal.</p> <p>6.1.2. Know the organisational structure and scope of responsibilities of the National Technical Committee 170 on Printing of Standardization Administration of China (SAC/TC170) established in the 1990s, and the role of printing companies.</p> <p>6.1.3. Know how international printing standards are developed and printing standards (such as ISO12647, ISO3664, ISO2846, GRACoL, SWOP, ICC, etc.) and certification system (such as G7, PSO, PSA etc.) related to print production workflows, and know the nature of the organisations behind these standards and their relationship with ISO/TC130.</p> <p>6.2 By understanding the development and features of different systems of standards, the printing company can make plans for developing its internal standards for different aspects of production.</p> <p>6.3 Be able to know to choose the appropriate certification system for the company.</p>
7. Assessment Criteria	The integrated outcome requirement of this unit of competency are: (i) Understand the overall scope of standardisation through different systems of printing standards. (ii) Know the maturity of standardisation from the development of printing standards.
8. Remarks	

1. Title	Understand the merits and purposes of printing standards
2. Code	106241L5
3. Range	Understand that printing is no longer a matter of techniques, inherent experience and subjective judgment. It has developed into a set of common knowledge defined by standardised materials, environment, equipment and workflow control. Quality should be judged on the basis of the specifications of printing standards, which serve as a common yard stick for customers, clients, and staff members of the printing company to set and measure quality metrics.
4. Level	5
5. Credit	3 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1 Understand the objectives of printing standardisation</p> <p>6.1.1. Understand the objectives of regularisation in printing standardisation, such as the range of hue of printing inks, paper white, ambient lighting sources, printing machine's performance, etc.</p> <p>6.1.2. Understand the objectives of systemisation in printing standardisation, such as systemised knowledge acquisition and communication, and the computerisation performs repetitive work automatically.</p> <p>6.1.3. Understand the objectives of quantisation in printing standardisation, such as measuring quality in every stage of the workflow, and ensuring that same data input returns the same output.</p> <p>6.2 With the above knowledge, be able to understand the various merits and purposes of printing standardisation, and how the printing company can make use of these standards.</p> <p>6.3 Know how to maximum the benefits of standardisation in the printing company.</p>
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Be able to identify elements of regularisation, systemisation, and quantification in various printing standards.</p> <p>(ii) Be able to determine how the printing company can benefit from various elements.</p>
8. Remarks	

1. Title	Master resource requirements for implementing printing standards
2. Code	106242L5
3. Range	Master resource requirements for implementing printing standards, understand the functions of different hardware/ software and assess their respective necessity and Returns on Investment (ROI). Understand the required manpower, provide staff training in printing standards, and establish standards of procedure (SOP) and terminology for use in the printing company.
4. Level	5
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1 Know the hardware and software required for implementing printing standards</p> <p>6.1.1. Hardware, such as viewing booth, measurement instrument, soft proofing monitor (ISO3664, ISO13655, ISO12646).</p> <p>6.1.2. Software, such as colour analysing software.</p> <p>6.2 Understand the required manpower, provide staff training in printing standards, and establish standards of procedure (SOP) and terminology for use in the company.</p> <p>6.3 With the above knowledge, be able to understand the relationship between hardware, software and manpower provisions and the implementation of printing standardisation, and assess the respective necessity and Returns on Investment (ROI) of these provisions.</p>
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Be able to support the printing company's effort in implementing standardisation by providing suitable hardware/software and talent.</p> <p>(ii) Be able to assess the necessity of investment and potential returns in the course of standardisation.</p>
8. Remarks	

1. Title	Understand certification of printing standards
2. Code	106243L5
3. Range	Understand the requirements, methods and procedures for obtaining certification through different printing standards bodies. Be able to analyse the benefits of certification to the printing company in terms of getting recognition from clients, strengthening the understanding of printing parameters, improving quality and efficiency, and reducing errors and wastage, etc., while also capable of striking a balance between such benefits and the requirements of additional investment and operating costs. Be able to help the printing company maximize the benefits of printing certification. If the printing company has multiple certifications, be able to consolidate all the requirements and procedures involved in order to avoid duplication and wastage of resources.
4. Level	5
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1 Understand the requirements, methods and procedures for obtaining certification through different printing standards bodies, as well as their merits and differences, the capability of the company in adopting these standards, and the related costs of certification, etc.</p> <p>6.2 Analyse the benefit of certification to the printing company in terms of getting recognition from clients, strengthening the understanding of printing parameters, improving quality and efficiency, and reducing errors and wastage, etc.</p> <p>6.3 Be able to strike a balance between the benefits of certification and the requirements of additional investment and operating costs. Be able to help the printing company maximize the benefits of printing certification. If the printing company has multiple certifications, be able to consolidate the acquirements and procedures involved in order to avoid duplication and wastage of resources.</p>
7. Assessment Criteria	The integrated outcome requirements of this unit of competency are: (i) Be able to choose the appropriate certifications for the printing company. (ii) Be able to help the printing company maximize the benefits of printing certification.
8. Remarks	

1. Title	Ensure effective corporate operation by flexibly implementing Entrepreneurial Resources Planning
2. Code	106244L6
3. Range	Management of the printing company establishes a mechanism for utilising, allocating and monitoring resources in order to ensure effective use of corporate resources.
4. Level	6
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1 Master the skills to flexibly deploy the printing company's resources</p> <p>6.1.1. Well versed in calculating departmental operating costs in order to ensure sufficient resource allocation for every department.</p> <p>6.1.2. Be able to achieve efficient and effective management by flexibly allocating and coordinating company's resources to offset predicted excess or shortage in departmental production resources under changing circumstances.</p> <p>6.1.3. Understand the relationship between the printing company's enterprise resources planning and the latest development in CIP4.</p> <p>6.2 With the above knowledge, be able to plan and formulate a corporate resource utilisation mechanism, and ensure no wastage of production resources.</p> <p>6.3 Through enterprise resources planning, be able to lead the management of various departments in establishing a monitoring mechanism to ensure resources are fully utilised.</p>
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency:</p> <p>(i) Be able to establish for the printing company a mechanism for utilising, allocating and monitoring resources, in order to ensure that corporate resources are fully utilised.</p>
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has knowledge of printing operation management.

Printing and Publishing Industries
“Specification for Competency
Standards”

First Edition Supplement

(Covering revised or new units of competency only)

Printing Industry

Functional Area of Prepress
technology

Contents of Units of Competency

1. Title	Know digital output techniques
2. Code	106245L1
3. Range	Assist to check the digital output file format, operate imposition software for digital proofing and computer-to-plate and related tasks under supervision in prepress department.
4. Level	1
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1 Know prepress output workflow, major application software, and image and text file specifications</p> <p>6.1.1. Know the use of major common image and text files, including the differences and application of image and text formats, and saving image and text files in correct formats for output use.</p> <p>6.1.2. Know PDF(portable document file) and its properties, conversion methods, and also how to open and print PDF document.</p> <p>6.1.3. Know output requirement for printable file, including differentiating between resolution dpi (dots per inch) and lpi (lines per inch) and printing requirements, choosing proper image and text file formats that are suitable for printing, basic file preflighting methods, choosing proper output colour mode and use of digital fonts.</p> <p>6.1.4. Know how to differentiate page composition and page imposition.</p> <p>6.1.5. Able to use digital page imposition software for simple loose pages and book imposition.</p> <p>6.1.6. Know digital proofing methods and their basic principles.</p> <p>6.1.7. Know to identify different types of wet proofs and digital proofs.</p> <p>6.1.8. Know computer-to-plate (CTP) production workflow and its advantages.</p> <p>6.1.9. Know differences between conventional plate-making and computer-to-plate (CTP) procedures.</p> <p>6.1.10. Know concept and production methods of soft proofs.</p> <p>6.2 With the above knowledge, be able to assist in checking the digital output file formats, operating imposition software for digital proofing, computer-to-plate and soft proofs, etc. under supervision during routine daily work.</p> <p>6.3 Be able to follow the production specification and instruction of digital output workflow and perform duties in digital output department.</p>
7. Assessment Criteria	This integrated outcome requirement for this unit of competency: (i) Able to assist in digital output and related tasks under supervision and according to specific requirements.
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has basic knowledge of computer operation.

1. Title	Know basic digital photography techniques
2. Code	106246L2
3. Range	Make use of and control lighting, focal length, perspective, aperture and depth of field in order to assist in digital photography and related tasks in prepress department..
4. Level	2
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1 Know basic concept of digital photography, principles and workflow.</p> <p>6.1.1. Understand the differences in workflow of digital commercial photography and conventional photography.</p> <p>6.1.2. Know the classification and use of digital cameras.</p> <p>6.1.3. Understand digital cameras and appropriate lighting facilities for digital photography.</p> <p>6.1.4. Understand image processing in digital photography basic control.</p> <p>6.1.5. Apply appropriate setting of focal length, perspective, aperture and depth of field.</p> <p>6.1.6. Know different types of lighting, how to choose, apply and control.</p> <p>6.1.7. Understand basic techniques for controlling product photo shooting.</p> <p>6.1.8. Thoroughly understand basic color control for digital photography.</p> <p>6.1.9. Know high dynamic range (HDR) and RAW file.</p> <p>6.2 Understand operation principles of digital photography and practical skills for matching with printing production.</p> <p>6.3 Able to perform digital photography tasks inside a photography studio according to set work instructions and under supervision.</p>
7. Assessment Criteria	<p>This integrated outcome requirement for this unit of competency:</p> <p>(i) Able to assist in digital photo taking and related tasks according to set requirements.</p>
8. Remarks	<p>This credit value of this unit of competency is based on the assumption that the learners, who are prepress practitioners in printing industry, have understandings on digital photography knowledge.</p>

1. Title	Understand preflight techniques
2. Code	106247L3
3. Range	Carry out examination and remedy for digital file, file converted into PDF and printable file, page imposition software application, digital proofing, CTP and related tasks according to set requirements in prepress department.
4. Level	3
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1 Understand techniques of printable file output</p> <p>6.1.1. Understand different file formats and their applications.</p> <p>6.1.2. Understand use of different Chinese and English digital fonts and their output properties.</p> <p>6.1.3. Understand effective resolution calculation.</p> <p>6.1.4. Understand the characteristics and application of digital image compression technology.</p> <p>6.1.5. Understand spot color plate and ink trapping processing methods.</p> <p>6.1.6. Master applied technology of file checking software.</p> <p>6.1.7. Master correct way to handle trapping.</p> <p>6.1.8. Master application of screening technology.</p> <p>6.1.9. Master basic methods for PostScript and PDF output.</p> <p>6.1.10. Understand international printing standards for barcode and QR code, including color, size, barcode's bar distance, etc.</p> <p>6.1.11. Know major software for producing barcode and QR code images.</p> <p>6.1.12. Master production of barcode and QR code image according to restrictions of different printing methods.</p> <p>6.1.13. Know how to use testing instrument for checking if output film and plate of barcode and QR code meet requirements.</p> <p>6.2 With the above knowledge, be able to master different production requirements of different printing method, appropriately execute prepress pre-inspection and repair tasks, and output proper film and plate.</p> <p>6.3 Able to use testing instruments for checking output film and plate, in order to ensure their quality can meet different printing production requirements.</p>
7. Assessment Criteria	This integrated outcome requirement for this unit of competency: (i) Able to use preflight software for checking and remedying digital file according to set digital output requirements and quality need..
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has knowledge of digital file output.

1. Title	Understand computer-to-plate (CTP) technology
2. Code	106248L3
3. Range	Make use of appropriate output facilities to execute computer-to-film (CTF) or computer-to-plate (CTP) and related tasks in prepress department.
4. Level	3
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1 Understand production workflow of computer-to-plate (CTP)</p> <p>6.1.1. Understand production workflows of computer-to-film (CTF) and computer-to-plate (CTP) and their differences.</p> <p>6.1.2. Understand image processing technology of computer-to-plate (CTP)</p> <p>6.1.3. Understand machine design and plate materials of computer-to-plate (CTP)</p> <p>6.1.4. Master computer-to-plate (CTP) output technology, including output techniques, differences between AM and FM screening, differences between PS and PDF workflow system, and make use of appropriate techniques for output quality inspection, etc.</p> <p>6.1.5. Master output of digital proof.</p> <p>6.1.6. Know development and trend of C1P4.</p> <p>6.1.7. Know ISO12647 and related standards.</p> <p>6.2 With the above knowledge, able to make use of appropriate output facilities and techniques to execute computer-to-plate production.</p> <p>6.3 Able to execute computer-to-plate production to meet the set requirement of company and according to ISO international standards in prepress department.</p>
7. Assessment Criteria	This integrated outcome requirement for this unit of competency: (i) Able to make use of appropriate output facilities and techniques to execute computer-to-plate and perform related tasks.
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has knowledge of digital file output.

1. Title	Understand digital file management techniques
2. Code	106249L3
3. Range	Execute examination of digital output file format and requirements on printable file, carry out imposition, digital proofing, CTP and digital file management and related tasks according to set requirements in prepress department.
4. Level	3
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1 Understand specification of digital prepress techniques.</p> <p>6.1.1. Understand digital file formats</p> <p>6.1.2. Know digital file preflighting software</p> <p>6.1.3. Know application of digital imposition software</p> <p>6.1.4. Know color management for meeting digital output requirements.</p> <p>6.1.5. Know CTP workflows and technology.</p> <p>6.1.6. Know quality control and inspection methods for digital workflow.</p> <p>6.1.7. Know basic knowledge of transmedia file.</p> <p>6.2 With the above knowledge, execute digital file management.</p> <p>6.3 Execute the preflighting of digital output file format and requirements on printable file, carry out imposition, digital proofing, CTP and digital file management and related task according to set requirements in prepress department.</p>
7. Assessment Criteria	<p>This integrated outcome requirement for this unit of competency:</p> <p>(i) Able to carry out digital file management and related tasks according to set specifications and workflow.</p>
8. Remarks	This credit value of this unit of competency is based on the assumption that the learner has knowledge of digital file output.

1. Title	Master digital prepress technology
2. Code	106250L4
3. Range	Make use of graphics and text file to produce multi-purpose digital file in addition to master colour reproduction and standardized colour digital proofing and related tasks in prepress department.
4. Level	4
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1 Thoroughly understand digital prepress technology</p> <p>6.1.1. Master the competency requirements of prepress technology in printing industry, such as computer hardware and software provision and application.</p> <p>6.1.2. Thoroughly understand the technical requirements of digital prepress production workflow.</p> <p>6.1.3. Apply computer operating system for updating information.</p> <p>6.1.4. Master professional desktop publishing software and updating information of digital fonts.</p> <p>6.1.5. Master the latest development trends for prepress technology, including computer-to-plate system, PDF/JDF system workflow, screening technology, digital colour management and digital proofing.</p> <p>6.1.6. Understand and master colour reproduction principles, including application of color management, importance of color standardization and apply techniques for color communication.</p> <p>6.1.7. Master output techniques for effective digital proof.</p> <p>6.1.8. Master the production of multi-purpose image and text digital file, such as the file properties and production techniques for PDF, PDF/X, etc.</p> <p>6.1.9. Understand the application of digital imposition and packaging software, and handle complex printing jobs.</p> <p>6.1.10. Master the prepress production requirements of web-to-print production.</p> <p>6.2 With the above knowledge, be able to produce multi-purpose digital image and text file and proof and perform related tasks.</p> <p>6.3 Be able to supervise subordinates inside prepress department to execute prepress production techniques for web-to-print business according to the business development of the employer company.</p>
7. Assessment Criteria	<p>This integrated outcome requirement for this unit of competency:</p> <p>(i) Able to apply major digital imposition software and color management technique in production of multi-purpose digital file and digital proof and perform related tasks in accordance with digital prepress production flow.</p>
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has basic knowledge of digital prepress technology.

1. Title	Master digital output techniques
2. Code	106251L4
3. Range	Apply software flexibly to correct files for best file output, master quality control, evaluate output quality and perform digital output and related tasks in prepress department.
4. Level	4
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1 Master plate output techniques that comply with printing production specifications</p> <p>6.1.1. Master file output requirements for printing, including compare characteristics of different preflighting software, apply characteristics of different compression techniques flexibly for best file output, apply software flexibly to correct files for best file output and master image processing output such as DCS(Desktop Colour Separation) and OPI(Open Prepress Interface), etc.</p> <p>6.1.2. Master techniques for using digital imposition software, including master processing of best personalized imposed page, thoroughly understand the relationship between paper and page imposition, apply digital imposition software flexibly to produce complex jobbing works, book, and packaging, etc. Master techniques for digital proofing, including identify proofing method for meeting requirements, and master techniques of ICC(International Colour Consortium) color management for handling digital proofing output.</p> <p>6.1.3. Master the use of computer-to-plate (CTP) workflow system for best plate output.</p> <p>6.1.4. Understand quality control methodology and master the use of quality control test forms for evaluating output quality level.</p> <p>6.1.5. Understand ISO12647 and related standard as a mean to control quality.</p> <p>6.2 With the above knowledge, be able to apply quality control methodology and techniques in executing digital output tasks that comply with quality requirements.</p>
7. Assessment Criteria	<p>This integrated outcome requirement for this unit of competency:</p> <p>(i) Able to apply quality control methodology and techniques to execute digital output and related tasks in compliance with quality requirements.</p>
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has knowledge of digital file output.

1. Title	Master uniform calibration in prepress
2. Code	106252L5
3. Range	Master confining the hardware/ software performance in prepress, including RGB, CMYK appearance and conversion, Lab color space adoption, and ICC profile utilization, etc in prepress department. Master a standard procedure for uniform calibration of prepress department by using standards testing printing forms and color spectrophotometer so as to appropriately harmonize all hardware/software in prepress department. In addition, coordinate with customers and designers for an uniform calibration procedure whenever possible. Apply ISO15930 (i.e. PDF/X) standard in prepress workflow as far as possible in order to reduce handshaking errors. Fine tune the hardware/ software of prepress department based on standards and uphold their performance until next calibration exercise.
4. Level	5
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1 Master confining the hardware/ software performance in prepress, including RGB, CMYK appearance and conversion, Lab color space adoption and ICC profile utilization, etc.</p> <p>6.1.1. Master a standard procedure for uniform calibration of prepress department by using standard testing print forms and color spectrophotometer so as to appropriately harmonize all hardware/ software in prepress department. In addition, coordinate with customers and designers for an uniform calibration procedure whenever possible.</p> <p>6.2 Apply ISO15930 (i.e. PDF/X) standard in prepress workflow as far as possible in order to reduce handshaking errors. Fine tune the hardware/ software of prepress department based on standards and uphold their performance until next calibration exercise.</p> <p>6.3 With the above knowledge, be able to implement uniform calibration procedure in prepress department, and to analyze any possible problems arisen and troubleshoot to solve the problems.</p>
7. Assessment Criteria	<p>This integrated outcome requirements for this unit of competency are:</p> <p>(i) Be able to explain the theory behind the specific conditions in the uniform calibration procedure, the function of each step in the procedure, and the overall performance of prepress department upon completion of calibration exercise.</p> <p>(ii) Be able to use prepress software in real jobs or establish an uniform calibration procedure for more than three prepress hardware, and achieve the uniform performance of prepress.</p>
8. Remarks	

1. Title	Plan digital printing workflow system
2. Code	106253L6
3. Range	Based on the characteristics of the hardware/ software available inside digital printing workflow, be able to plan a digital printing workflow system and the related tasks in order to be cost-effective and compliance to quality requirements in a printing production department.
4. Level	6
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1 Master digital printing workflow</p> <p>6.1.1. Differentiate between conventional and digital printing workflow.</p> <p>6.1.2. Master Postscript and PDF digital printing workflow.</p> <p>6.1.3. Understand the application of Raster Image Processing(RIP) in printing workflow.</p> <p>6.1.4. Compare the application and differences in the digital printing workflow among Computer-to-Film, Computer-to-Plate, Computer-to-Print and Computer-to-Press and digital printers, etc.</p> <p>6.1.5. Understand the hardware and software modules prepress production workflow and their application in digital printing.</p> <p>6.2 With the above knowledge, be able to match effectively the hardware and software modules with the file output of digital printing workflow.</p> <p>6.3 Be able to establish digital printing workflow application for company, and plan the file input/ output standards that can match with the digital printing workflow system and hardware/ software modules.</p>
7. Assessment Criteria	<p>This integrated outcome requirement for this unit of competency:</p> <p>(i) Able to plan a cost effective and quality requirement compliance system according to the hardware/ software characteristics of the digital printing workflow.</p>
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has knowledge of digital printing workflow system management.

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Printing Industry

Functional Area of Printing
technology

Contents of Units of Competency

1. Title	Know basic printing technology
2. Code	106254L1
3. Range	Assist in printing machine operation and plate preservation according to set instructions and performed related tasks in printing department.
4. Level	1
5. Credit	3 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Know major printing methods and their characteristics</p> <p>6.1.1. Know the methods of lithographic, intaglio, relief, screen and digital printing</p> <p>6.1.2. Know the difference among lithographic, intaglio, relief, screen and digital printing, and their respective print image properties.</p> <p>6.1.3. Know the principles of lithographic, intaglio, relief, screen and digital printing.</p> <p>6.1.4. Know the printing plate making methods of lithographic, intaglio, relief and screen printing.</p> <p>6.1.5. Know the maintenance procedure for the use and preservation of plates in lithographic, intaglio, relief and screen printing.</p> <p>6.1.6. Know the correct plt value and mixing methods of fountain solution in lithographic printing.</p> <p>6.1.7. Know the pros and cons of conventional and digital printing.</p> <p>6.1.8. Know the types, principles, and production workflow of digital printing.</p> <p>6.1.9. Know basic operation techniques of digital printing processes.</p> <p>6.2. With the above knowledge, be able to assist in printing machine operation, plate making, and plate preservation during and after job.</p> <p>6.3. Be able to assist in the proper procedure of protecting plates.</p>
7. Assessment Criteria	<p>This integrated outcome requirement of this unit of competency:</p> <p>(i) Be able to assist in plate making and preservation and other related tasks based on the properties of plates used in major printing methods and according to instructions.</p>
8. Remarks	This unit of competency is applicable to printing industry practitioners in general.

1. Title	Know basic press proof inspection
2. Code	106255L1
3. Range	Assist in adjusting ink-water balance for printing press so that press sheet color matches the original or color proof and perform related tasks in lithographic pressroom.
4. Level	1
5. Credit	3 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Know the methods for identifying print sheet quality in order to match standard of the original.</p> <p>6.1.1. Know processing method and use of major proofing types.</p> <p>6.1.2. Have a clear idea of quality requirements on print products and inspection method.</p> <p>6.1.3. Know how standard data can be set for proofs.</p> <p>6.1.4. Know methods for inspecting ink color of print product.</p> <p>6.1.5. Use densitometer correctly.</p> <p>6.1.6. Know correct method for adjusting ink level.</p> <p>6.1.7. Know inspection method for soft proofing.</p> <p>6.2. With the above knowledge, be able to identify the color variation between print proof and print sheet, and use inspection equipment to check the quality deviation between print sheet and print proof.</p> <p>6.3. Be able to assist adjusting ink-water balance under instruction in order to match ink color effect of print sheet with print proof.</p>
7. Assessment Criteria	<p>This integrated outcome requirement of this unit of competency:</p> <p>(i) Be able to assist adjusting ink-water balance under instruction in order to match the color effect of print sheet with the original or print proof.</p>
8. Remarks	This unit of competency is applicable to printing industry practitioners in general.

1. Title	Understand application of printing technology
2. Code	106256L2
3. Range	Identify the print product characteristics of different major printing methods, perform plate making, plate preservation and other related tasks in prepress department and pressroom.
4. Level	2
5. Credit	3 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Understand major printing methods and their characteristics.</p> <p>6.1.1. Understand lithographic, intaglio, relief, screen and digital printing methods.</p> <p>6.1.2. Understand the differences between and advantages of lithographic, intaglio, relief, screen and digital printing methods.</p> <p>6.1.3. Understand the principles of lithographic printing.</p> <p>6.1.4. Master the correct methods of adjusting fountain solution during print production and understand the impact of a fountain solution on print quality.</p> <p>6.1.5. Understand plate making methods of lithographic printing.</p> <p>6.1.6. Understand the maintenance process of plate in use and preservation after use of lithographic printing.</p> <p>6.1.7. Understand the differences of digital printing with other printing methods.</p> <p>6.1.8. Understand the process and printing production workflow of digital printing.</p> <p>6.1.9. Understand basic operation techniques of digital printing machine.</p> <p>6.2. With the above knowledge, assist in plate making and digital prepress production in prepress department and press room.</p> <p>6.3. Under set instructions of departments on safe operation guidelines and file archive guidelines, perform the preservation of plates and archive of digital files under supervision after completion of prepress and printing job according to the safe operation guidelines and file archive guideline.</p>
7. Assessment Criteria	<p>This integrated outcome requirement of this unit of competency:</p> <p>(i) Able to perform plate making, plate preservation and other related tasks based on instructions and plate characteristics of lithographic printing method.</p>
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has basic printing knowledge.

1. Title	Master operation of lithographic printing press for paper feeding, delivery and registration
2. Code	106257L2
3. Range	Adjust paper feeding system, position of print image, and delivery board, perform paper fanning, knocking, pulling and counting, handle waste paper and perform related tasks in lithographic printing department.
4. Level	2
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Master operation of lithographic printing press for paper feeding, delivery and registration.</p> <p>6.1.1. Understand operation procedure for lithographic printing press, including prepress preparation, understand matters requiring special attention during printing production, master procedures and techniques for printing press clean up after printing.</p> <p>6.1.2. Know correct procedures and techniques for adjusting paper feeding system. Familiar with operation and techniques for adjusting paper feeding system. Understand techniques for adjusting feeder board accessories. Familiar with correct procedures and techniques for adjusting paper guide system.</p> <p>6.1.3. Understand techniques for adjusting position of print image. Familiar with front lay and side lay adjustment. Adjust plate cylinder correctly. Master techniques for adjusting position of print image. Understand importance of front lay and side lay adjustment to registration.</p> <p>6.1.4. Understand names and functions of delivery board components. Master correct procedures and techniques for adjusting paper delivery system. Know spraying powder system structure and function. Understand techniques for adjusting spray powder system. Understand reasons for printing set-off.</p> <p>6.1.5. Master paper pulling for randomized print proofs for the uses of printed dummies and quality control.</p> <p>6.2. Be able to master adjusting of paper feeding system, registration, delivery board, and perform paper fanning, knocking, pulling and counting, handle waste paper and perform related tasks under supervision in lithographic printing department.</p> <p>6.3. Master the uses of waste paper for adjusting feeding system and delivery system of lithographic printing press according to printing requirements, and perform techniques of cylinder adjustment and print position adjustment for registration and assist collecting print proofs and related tasks.</p>

7. Assessment Criteria	<p>This integrated outcome requirement of this unit of competency:</p> <p>(i) Be able to use waste paper for adjusting feeding system and delivery system of lithographic printing press according to printing requirements, and perform techniques of cylinder adjustment and print position adjustment for registration and assist collecting print proofs and related tasks.</p>
8. Remarks	<p>The credit value of this unit of competency is based on the assumption that the learner has basic knowledge of lithographic printing press operation.</p>

1. Title	Understand digital printing technology
2. Code	106258L3
3. Range	Select digital printing method of inkjet, laser, hot wax or others according to set requirements on product quality and perform related tasks in printing sales department and customer services department.
4. Level	3
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Understand major digital printing methods, including inkjet, laser, hot wax and other technologies and their characteristics.</p> <p>6.1.1. Understand the characteristics, application, and the capabilities of achieving printing effects and requirements of the above digital printing methods.</p> <p>6.1.2. Understand proper procedures for major digital printing, including knowledge of sheet-fed and web-fed printing machines, regular and special paper printing machines, and differences between large/small format printing machines.</p> <p>6.1.3. Understand digital pre-press technologies that support requirements on inkjet, laser, hot wax and other digital technologies.</p> <p>6.1.4. Be able to elaborate the file format and transmission methods for inkjet, laser, hot wax printing and other technologies.</p> <p>6.1.5. Understand prepress technologies that match with the above mentioned digital printing methods, for example: preflight, personalized printing, variable data printing, etc.</p> <p>6.1.6. Identify print products produced by the above mentioned digital printing methods.</p> <p>6.2. With the above knowledge, be able to recognize the different characteristics of various digital printing methods, and offer the most appropriate advices to customers regarding digital printing production.</p> <p>6.3. Be able to analyze the development trend of digital printing technology, and the share and positioning of different technologies in print market.</p>
7. Assessment Criteria	<p>This integrated outcome requirement of this unit of competency:</p> <p>(i) Able to assist in choosing the most appropriate digital printing methods that fulfill the set requirements of production quality based on the strengths and weaknesses of different digital prepress technologies and digital printing methods.</p>

1. Title	Understand 3D Lenticular Printing technology
2. Code	106259L4
3. Range	Master production techniques of 3D Lenticular print products, and be able to meet customers' required specifications for establishing effective production plan in the production department of a printing company.
4. Level	4
5. Credit	6 (For reference only)
6. Competency	<p>Performance requirements</p> <p>6.1. Understand 3D Lenticular printing technology</p> <p>6.1.1. Know thoroughly the categories and scope of applications of 3D Lenticular print products.</p> <p>6.1.2. Understand prepress production technology for 3D Lenticular printing, including: 3D imagery photography, 3D/multiple image effect production software, file format specifications and requirements of 3D Lenticular files.</p> <p>6.1.3. Master printing technologies for 3D Lenticular printing, including: printing equipment's features and capabilities, print shop's environmental control, printability of lithographic or digital printing methods, technical requirements for different printing substrates, etc.</p> <p>6.1.4. Understand postpress and finishing techniques and procedure for 3D Lenticular printing.</p> <p>6.1.5. Understand 3D Lenticular print materials' technical requirements for processing of the biconvex lenticule plastic sheet, including: types of plastic sheets, printability, censes per inch, refractive index, thickness, 3D effect, plastic material size and refractive angle, etc.</p> <p>6.1.6. Master quality control methods for 3D Lenticular printing.</p> <p>6.2. With the above knowledge, implement effective production for 3D Lenticular printing.</p> <p>6.3. Be able to coordinate effective communication and technical dialogue of all departments in order to ensure consistent product quality and meet the requirements of customers.</p>
7. Assessment Criteria	<p>This integrated outcome requirement of this unit of competency:</p> <p>(i) Be able to establish effective 3D Lenticular printing production plan.</p>
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has printing production technology application and management knowledge.

1. Title	Establish printing press calibration procedure in compliance with international printing standard
2. Code	106260L5
3. Range	Adjust ink level and pressure of printing press, utilize testing form and spectrophotometer in printing department in order to maintain an even and stable print quality across the print sheet, and match spot colors to standard Lab values in printing department. Apply standard procedure for printing press calibration for synchronising the calibration procedure of computer-to-plate facilities in prepress department. Fine tone printing press for achieving standard requirements, and also upkeep and maintain the printing press stabilities.
4. Level	5
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Master the necessary theories used in printing press calibration procedure, including linear compensation, dot gain compensation, tone value increase (dot gain) TVI, grey balance, neutral grey, CIELab color model, Neutral Print Density Curve, standard paper classifications, etc.</p> <p>6.1.1. Understand the roles and requirements of computer-to-plate facilities in achieving printing press calibration.</p> <p>6.2. Master work sequence and requirements in printing press calibration procedure to meet the requirements of at least one ISO-compliant certification system. Use spectrophotometer and related analytic software to fine tune printing press.</p> <p>6.3. With the above knowledge, implement printing press calibration procedure for analyzing any possible abnormalities and then rectifying them.</p>
7. Assessment Criteria	<p>This integrated outcome requirements of this unit of competency are:</p> <p>(i) Be able to explain the theories behind the planning of the entire printing press calibration procedure, the function of each step in the procedure, and the performance characteristics of the printing press after calibration.</p> <p>(ii) Be able to handle the operation of actual printing press through color matching analytic software for completing standard printing press calibration procedure.</p>
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has printing knowledge in press operation.

1. Title	Establish development plan for inject printing products
2. Code	106261L5
3. Range	Master inkjet printing technology in printing department, with an understanding of the characteristics, performance and peripheral facilities of different inkjet printing presses from different brands, and evaluate the feasibilities of using inkjet printing for new products in the company.
4. Level	5
5. Credit	6 (For reference only)
6. Competency	<p><u>Performancre requirements</u></p> <p>6.1. Master the research and developement of new inkjet printing products.</p> <p>6.1.1. Understand the scope and appropriateness of the application of inkjet printing technology.</p> <p>6.1.2. Understand the performance, specifications and limitations of the inkjet printing presses used in the industry, including inkjet printing head technology, output resolution, print speed, types of printing ink and drying methods, substrates (paper and non-paper), etc.</p> <p>6.1.3. Master the production workflow and the compatibilities of new materials of inkjet printing press.</p> <p>6.1.4. Master the quality standard and control methods of inkjet printing.</p> <p>6.1.5. Understand thoroughly the calculation of production costs of inkjet printing products.</p> <p>6.1.6. Understand development trend of the inkjet technology</p> <p>6.1.7. Understand the compatibilities of inkjet printing technology with other printing technologies.</p> <p>6.2. With the above knowledge, be able to evaluate the feasibilities of the expansion of new inkjet printing products for a company, and to establish the setting of production line and staff development plan.</p> <p>6.2.1. Evaluate the charateristics, production efficiency, features and print quality of different inkjet printing presses from different brands.</p> <p>6.3. Be able to coordinate different departments in a company, implement production plan for new inkjet printing products and establish quality specifications and management methods for the products.</p>
7. Assessment Criteria	<p>This integrated outcome requirement of this unit of competency :</p> <p>(i) Be able to evaluate the feasibilities of the expansion of new inkjet printing products for a company, and to establish the setting of production line and staff development plan.</p>
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has printing technology application and management knowledge.

1. Title	Establish development plan for large format inkjet printing products
2. Code	106262L5
3. Range	<p>Follow on the rapid development of advertising market, there is a continuous increase in the demand of large format printing product, and the products are very versatile for applications in different venues and purposes.</p> <p>Master the inkjet printing production technology, the characteristics of large format inkjet printing facilities, and also the application and production methods of different materials in printing department. Be able to evaluate the feasibility of expansion of new large format inkjet printing products for a company.</p>
4. Level	5
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Master large format inkjet printing technology</p> <p>6.1.1. Understand the types and scope of applications of large format inkjet printing.</p> <p>6.1.2. Understand the production techniques of large format inkjet printing products, including file design, resolution, and output specifications, inkjet printing process, material treatments, post printing multi leaf stitching, and mounting hanger components, etc.</p> <p>6.1.3. Understand material characteristics of outdoor large format inkjet printing products, including environmental protection standard compatibility, high tensile strength, wind proof, waterproof, ink fastness, and UV resistance, etc.</p> <p>6.1.4. Understand the technical requirements, specifications and installation techniques for installing large format inkjet print advertisement in different kinds of venues, including license application, risk assessment of site and safety management, work methods, electricity source and lighting system installation, etc.</p> <p>6.1.5. Understand the production and installation costs for large format inkjet print advertisement.</p> <p>6.2. With the above knowledge, evaluate the feasibility of expansion of new large format inkjet printing products for a company, and establish the setting of production line and staff development plan.</p> <p>6.2.1. Evaluate the price-performance comparison of large format inkjet printing facilities with different brands and their economic effectiveness.</p> <p>6.2.2. Evaluate the work quality of subcontractors in installations of outdoor large format inkjet print advertisement.</p> <p>6.3. Be able to coordinate different departments in company and subcontractors for implementing production plan for new large format inkjet print products, and establishing product quality specifications and management methods.</p>

7. Assessment Criteria	<p>This integrated outcome requirements of this unit of competency are:</p> <ul style="list-style-type: none"> (i) Be able to evaluate the feasibility of expansion of new large format inkjet print products for a company, and to establish the setting of production line and staff development plan. (ii) Be able to coordinate different departments and subcontractors for establishing product quality specifications and management methods.
8. Remarks	<p>The credit value of this unit of competency is based on the assumption that learner has printing technology application and management knowledge.</p>

1. Title	Establish development plan for variable data printing technology
2. Code	106263L5
3. Range	Understand the scope of application and potential market development of variable data printing in personalised products in a printing company. Use this new technique to expand sales market of print products.
4. Level	5
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Understand variable data printing technology</p> <p>6.1.1. Understand technical specifications and scope of application of digital printing press.</p> <p>6.1.2. Understand production workflow and technology of printing direct mailing matters.</p> <p>6.1.3. Understand security, storage and management of protecting customers' data.</p> <p>6.1.4. Understand the hardware and software setting and functionalities of database.</p> <p>6.1.5. Understand the printing technology of adding mailing addresses onto preprinted print products.</p> <p>6.1.6. Understand the packing and logistics arrangement of direct mailing printing matters.</p> <p>6.1.7. Understand the Personal Data (Privacy) Ordinance of Hong Kong, especially the guides on holding duration of customers' data in regard to the application of variable data printing.</p> <p>6.2. With the above knowledge, be able to establish digital printing production specifications for variable data printing and personalised product production, including customers' data security, production procedure establishment, quality standard, post press and logistics arrangement, etc.</p> <p>6.3. Be able to coordinate different departments for implementing production plan for variable data printing products, and monitoring the security effectiveness of customers' data, production efficiency and product quality.</p>
7. Assessment Criteria	<p>This integrated outcome requirements of this unit of competency are:</p> <p>(i) Be able to establish digital printing production specifications for variable data personalised products.</p> <p>(ii) Be able to monitor security effectiveness of customers' data production efficiency and product quality.</p>
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has printing production technology application and management knowledge.

1. Title	Establish development plan for electrostatic printing products
2. Code	106264L5
3. Range	Understand the development of electrostatic printing technology in printing department. Analyze the characteristics and features of different electrostatic printing presses from different brands, and be able to establish production plan of electrostatic printing products for a company.
4. Level	5
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Understand electrostatic printing technology</p> <p>6.1.1. Understand the scope of application and potential development of electrostatic printing technology.</p> <p>6.1.2. Understand the technical specifications and functionalities of electrostatic printing presses.</p> <p>6.1.3. Understand production workflow and applicable materials of electrostatic printing press.</p> <p>6.1.4. Understand technical requirements of operating electrostatic printing press.</p> <p>6.1.5. Understand the requirements on production site and occupational health and safety for setting an electrostatic printing venue.</p> <p>6.1.6. Understand the characteristics and print quality of different electrostatic printing presses from different brands.</p> <p>6.1.7. Master quality control standard of electrostatic printing.</p> <p>6.1.8. Understand repair and maintenance requirements of electrostatic printing press.</p> <p>6.2. With the above know knowledge, be able to establish production plan of electrostatic printing product for a company, including equipment procurement plan, production venue arrangement, staff development plan, quality control and management, machine repair and maintenance, etc.</p> <p>6.3. Be able to establish development plan for the production of electrostatic printing products, combine with other printing technologies for innovating new products and creating new business opportunities for a company.</p>
7. Assessment Criteria	<p>This integrated outcome requirements of this unit of competency are:</p> <p>(i) Be able to establish production plan of electrostatic printing products for a company.</p> <p>(ii) Be able to establish development plan of electrostatics printing product production.</p>
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has printing production technology application and management knowledge.

1. Title	Establish inline quality monitoring system for lithographic printing press
2. Code	106265L5
3. Range	Be able to evaluate the monitoring functionalities of inline quality system for printing press in lithographic printing department of a printing and publishing company, and establish quality system for printing press. Establish quality standard that can match customer requirements and production efficiency, uplift production throughput and reduce material wastages of printing department.
4. Level	5
5. Credit	3 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Understand the operational principles and functionalities of inline quality monitoring system for lithographic printing press.</p> <p>6.1.1. Understand the control points and facilities setting of inline quality monitoring system for either sheet-fed or web lithographic printing press.</p> <p>6.1.2. Understand the set-up methods for adding inline quality monitoring system on existing printing facilities.</p> <p>6.1.3. Understand the effects and limitations of inline quality monitoring system within the whole production workflow.</p> <p>6.1.4. Understand the preparation of comparison file and print sheets for matching with the inline quality monitoring system, including ink density, print image registration standard, printing image resolution.</p> <p>6.1.5. Understand the importance of print standards and compatibility with the system.</p> <p>6.1.6. Understand various causes and remedial methods of different kinds of print defects.</p> <p>6.1.7. Understand the work procedure for adjusting, repair and maintenance of quality monitoring system.</p> <p>6.1.8. Understand quality control instruments for printing, such as densitometer, control strip scanners, etc and their operating methods.</p> <p>6.2. With the above knowledge, be able to establish the specification of print sheet quality standard in printing department and provide specifications for the inline quality monitoring system, so as to match with the quality requirements of different customers.</p> <p>6.2.1. Evaluate the functional performance of inline quality monitoring system during printing production.</p> <p>6.2.2. Confirm print sheet can match with customers' quality requirements before the actual print production.</p> <p>6.3. Be able to analyse report generated by inline quality monitoring system and raise improvement measures, and coordinate quality monitoring system operation with pointing press operation, in order to maximize production efficiency.</p>

7. Assessment Criteria	<p>This integrated outcome requirements of this unit of competency are:</p> <ul style="list-style-type: none"> (i) Be able to establish specifications for print sheet quality standard in printing department. (ii) Be able to evaluate functional performance of inline quality monitoring system. (iii) Be able to analyse reports generated by inline quality monitoring system and raise improvement measures.
8. Remarks	<p>The credit value of this unit of competency is based on the assumption that the learner has printing production technology application and management knowledge.</p>

1. Title	Establish effective anti-counterfeit printing and authentication system
2. Code	106266L5
3. Range	Apply anti-counterfeit printing technology to produce print products with anti-counterfeit features for customers in production department of a printing company, and establish effective authentication methods and non-disclosure agreement of production technology, in order to avoid the leaking of this technical information.
4. Level	5
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Understand anti-counterfeit printing technology</p> <p>6.1.1. Understand anti-counterfeit printing technology, including lithographic, relief, intaglio, holographic and digital printing, etc.</p> <p>6.1.2. Master the printing procedure of the above anti-counterfeit printing technology.</p> <p>6.1.3. Understand the procurement channels of software, hardware and materials for anti-counterfeit purposes, including legal manufacturing source and supplier, standard for quality check, safely delivery, etc..</p> <p>6.1.4. Understand the effects, specifications, performance requirements and authentication methods of different anti-counterfeit printing features.</p> <p>6.1.5. Understand the prepress file preparation technique, plate-making, printing and postpress technical requirements for different anti-counterfeit printing features.</p> <p>6.1.6. Understand the monitoring of leaking security of production technology in different production departments, leaking of products, lost prevention, etc through work instructions.</p> <p>6.1.7. Master quality control standard of anti-counterfeit print.</p> <p>6.2. With the above knowledge, be able to provide customers with effective anti-counterfeit printing and authentication methods, and establish effective production workflow, staff mannel and security monitoring system, etc.</p> <p>6.3. Be able to review continuously the counterfeiting printing technology used by the company, research the latest development of anti-counterfeit printing technology, so as to motivate staff for producing the best print products with anti-counterfeit features.</p>
7. Assessment Criteria	<p>This integrated outcome requirements of this unit of competency are:</p> <p>(i) Master the anti-counterfeit printing technology for lithographic, relief, intaglio, holographic, and digital printing..</p> <p>(ii) Be able to establish effective anti-counterfeit printing workflow, staff manual and security monitoring system, etc.</p>
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has printing production technology application and management knowledge.

1. Title	Analyse development potentials of functional material printing products
2. Code	106267L5
3. Range	Follow on the rapid development of electronic technology, there is an increase of deploying printing technology for producing low-cost, large quantity of electronic and optical scanning functional products. Understand functional material printing technology in printing department, deploy different printing technology and special materials for printing special electronic products, such as RFID antenna, paper battery, printed circuit board, etc.
4. Level	5
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Understand functional material printing technology.</p> <p>6.1.1. Understand the development and scope of application of deploying printing technology in electronic product market.</p> <p>6.1.2. Understand the applicable area of functional printing technology, including 3D printing, smart packaging printing, RFID, paper battery and interactive display, etc.</p> <p>6.1.3. Understand the applied materials for functional printing.</p> <p>6.1.4. Master applied technology in printing electronic products with electropasma based ink, including lithographic, screen, intaglio and inkjet printing, etc.</p> <p>6.1.5. Master the function and production technology for smart packaging printing.</p> <p>6.1.6. Understand the chemical characteristics of applying nanotechnology particles in metallic conductive ink, in order to realize green printed circuit board production.</p> <p>6.1.7. Understand the printing of RFID products by photonic curable conductive ink technology and intensive pulse light sintering of copper oxide ink technology.</p> <p>6.1.8. Understand product testing methods that match the quality specifications.</p> <p>6.2. With the above knowledge, be able to explore the feasibility and market potential of expansion in functional material printing products for a company, including the current market condition of electronic printing, smart packaging printing demand, investment, and the capabilities of company's production technology, etc.</p> <p>6.3. Analyze the development potential of functional materials for a company, and propose development strategy to the management.</p>
7. Assessment Criteria	<p>This integrated outcome requirement of this unit of competency:</p> <p>(i) Be able to explore the feasibility and market potential in expansion of functional material printing products for a company.</p>
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has printing production technology application and management knowledge.

Printing and Publishing Industries
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(Covering revised or new units of competency only)

Printing Industry

Functional Areas of Postpress
Technology

Contents of Units of Competency

1. Title	Understand the applications of postpress technology
2. Code	106268L2
3. Range	Assist the postpress department in using major postpress machinery, tools and materials for cutting, folding, binding, laminating, die-cutting, hot-stamping, etc., and tuning postpress machinery according to finishing requirements of printing jobs..
4. Level	2
5. Credit	3 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Understand postpress finishing techniques and related operating principles.</p> <p>6.1.1. Understand the principles, terminology and procedures of major postpress finishing processes, including cutting, folding, binding, laminating, die-cutting and hot-stamping, etc.</p> <p>6.1.2. Understand the production workflows of major print products, including jobbing, bookwork and packaging, etc.</p> <p>6.1.3. Understand the names, functions and applications of major postpress finishing machinery.</p> <p>6.1.4. Understand the quality specification requirements of print products.</p> <p>6.1.5. Understand the tuning methods of major binding machines in order to meet the required quality standards.</p> <p>6.1.6. Understand the development and applications of digital postpress technology.</p> <p>6.2. With the above knowledge, be able to help with postpress production.</p> <p>6.3. Be able to assist in operating and tuning postpress machinery according to the quality specifications of print products in postpress finishing processes under supervision.</p>
7. Assessment Criteria	<p>The integrated outcome requirement for this unit of competency:</p> <p>(i) Be able to assist in operating and tuning postpress machinery according to the required quality standards in postpress finishing processes by following commands and safety instructions.</p>
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has basic knowledge of postpress technology.

1. Title	Understand inline postpress technology for variable data printing
2. Code	106269L5
3. Range	Master the applied technology for different inline postpress processes, and be able to establish effective postpress finishing solutions for variable data printing production lines and monitor the results for the printing department.
4. Level	5
5. Credit	3 (For reference only)
6. Competency	<p>Performance requirements</p> <p>6.1. Understand inline postpress technology for variable data printing.</p> <p>6.1.1. Understand the technological development of inline postpress finishing system of digital printing process.</p> <p>6.1.2. Understand the categories and functions of peripheral devices for inline postpress finishing system of digital printing process.</p> <p>6.1.3. Master the installation of inline postpress finishing system on existing digital printing presses.</p> <p>6.1.4. Master the testing of inline postpress finishing system added to existing digital printing presses.</p> <p>6.2. With the above knowledge, be able to develop a plan for setting up inline postpress finishing peripheral devices for variable data printing, in order to meet the customers' quality requirements.</p> <p>6.2.1. Develop an effective postpress production plan and monitor the results.</p> <p>6.3. Be able to evaluate the productivity, production quality and cost effectiveness of the inline postpress system, and provide feedback to the company's management.</p>
7. Assessment Criteria	<p>The integrated outcome requirements for this unit of competency are:</p> <p>(i) Be able to develop a plan for setting up inline postpress finishing peripheral devices for variable data printing.</p> <p>(ii) Be able to evaluate the productivity, production quality and cost effectiveness of inline postpress finishing system.</p>
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has knowledge of deploying and managing printing production technology.

1. Title	Understand inline postpress technology
2. Code	106270L5
3. Range	Understand inline postpress technology, be able to develop an effective production plan, and monitor the efficiency of inline postpress operations so as to ensure that the print products meet the customers' requirements.
4. Level	5
5. Credit	3 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1 Understand inline postpress technology.</p> <p>6.1.1 Understand different kinds of inline postpress operations, including inline cold stamping, inline reverse direction varnishing, inline spot UV varnishing, etc.</p> <p>6.1.2 Master the technology and applications of inline postpress.</p> <p>6.1.3 Understand the types and characteristics of materials used for inline postpress operations.</p> <p>6.1.4 Understand prepress tasks, including source file design, plate specifications and types, etc., for inline postpress operations.</p> <p>6.1.5 Understand the venues and facilities required and environmental solutions for inline postpress operations.</p> <p>6.2 With the above knowledge, be able to develop an effective work plan for inline postpress operations, and coordinate and oversee all departments in meeting the technical requirements of the production line.</p> <p>6.2.1 Analyse the productivity and advantages of inline postpress.</p> <p>6.3 Be able to evaluate the differences in quality and costs between inline postpress and offline finishing and provide professional advice to the company's management and customers; and investigate the use of various inline finishing technology for creating unique visual effects so as to raise the value of the products.</p>
7. Assessment Criteria	<p>The integrated outcome requirements for this unit of competency are:</p> <p>(i) Be able to develop an effective work plan for inline postpress.</p> <p>(ii) Be able to evaluate the differences in quality and costs between inline and offline postpress.</p>
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has knowledge of deploying and managing printing production technology.

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Printing Industry

Functional Areas of

Customer/Consumer Relations

Contents of Units of Competency

1. Title	Understand basic Chinese terminology
2. Code	106271L1
3. Range	Be able to use Chinese (including Putonghua) printing terminology in internal and external communication in various departments of the printing company.
4. Level	1
5. Credit	3 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Know basic Chinese printing terminology, including print product names, measurement units, major printing methodologies, printing material names, colour names, production workflows, machine and instrument names, etc.</p> <p>6.2. With the above knowledge, be able to use printing terminology in daily internal and external communication.</p> <p>6.3. Be able to understand and follow instructions containing printing terminology in job orders.</p>
7. Assessment Criteria	The integrated outcome requirement of this unit of competency: (i) Be able to use basic Chinese (including Putonghua) printing terminology in internal and external communication.
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has basic knowledge of computer operation.

1. Title	Understand the applications of Chinese terminology
2. Credit	106272L2
3. Range	Be able to use basic Chinese printing terminology in internal and external communication, and handle simple paperwork in Chinese.
4. Level	2
5. Credit	3 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Master basic Chinese printing terminology, including terms concerning:</p> <p>6.1.1. Print quality standards and issues;</p> <p>6.1.2. Print quality control and measurement tools;</p> <p>6.1.3. Components of machinery and instruments used by the printing company;</p> <p>6.1.4. Brands of machinery and instruments used by the printing company; and</p> <p>6.1.5. Logistics flow of the printing company.</p> <p>6.2. Be able to understand prepress, press and postpress terminologies, and use basic Chinese printing terminology in internal and external communication.</p> <p>6.3. Be able to handle paperwork in Chinese by following the laid-down practices of the company and under supervision.</p>
7. Assessment Criteria	<p>The integrated outcome requirement of this unit of competency:</p> <p>(i) Be able to use basic Chinese printing terminology for internal and external communication and handle simple paperwork in Chinese.</p>
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has basic Chinese and English language skills.

1. Title	Formulate print product marketing strategies
2. Code	106273L5
3. Range	Be able to assist the management of the printing company's marketing and sales departments in formulating effective marketing strategies and identifying effective market positioning for the company using marketing analytical tools.
4. Level	5
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Understand the circumstantial factors affecting print product marketing strategies and market positioning.</p> <p>6.1.1. Understand the status and trends of local and international politics, economy, technological development, community, environmental policies and taste.</p> <p>6.1.2. Assess the effects of these circumstantial factors on print product marketing strategies and market positioning.</p> <p>6.1.3. Master the cycles of print product market and the corresponding marketing initiatives.</p> <p>6.1.4. Understand the processes and methods for formulating print product marketing strategies.</p> <p>6.1.5. Use marketing analytical tools to formulate print product marketing strategies.</p> <p>6.1.6. Understand the state of development of digital printing market.</p> <p>6.2. With the above knowledge, be able to analyse the respective shares of lithographic, intaglio, relief, screen and digital print products in the market, and evaluate the status and trends of customer sources and competitors in the market using marketing analytical tools, in order to formulate effective marketing strategies and identify effective market positioning for the company.</p> <p>6.3. Be able to comprehensively coordinate the operations of marketing and sales departments, monitor staff performance by establishing effective marketing strategies, and identify the company's effective market positioning.</p>
7. Assessment Criteria	The integrated outcome requirement of this unit of competency: (i) Be able to formulate effective marketing strategies and identify effective market positioning for the company using marketing analytical tools.
8 Remarks	The credit value of this unit of competency is based on the assumption that the learner has knowledge of a printing company's operation and management.

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Printing Industry

Functional Areas of Information

Technology

Contents of Units of Competency

1. Title	Understand basic programming and internet publishing techniques
2. Code	106274L3
3. Range	Assist in creating webpages using programming and World Wide Web publishing techniques for the printing company's design or information technology department.
4. Level	3
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Know the programming tools and web design software.</p> <p>6.1.1. Know the functions and features of major programming software.</p> <p>6.1.2. Understand the structure and features of Hypertext Markup Language (HTML).</p> <p>6.1.3. Understand embedded programming languages for enhancing website functionality and creating dynamic webpages.</p> <p>6.1.4. Possess the expertise in the use of web design software and programming tools.</p> <p>6.1.5. Able to distinguish between web design software, word processing software and graphics software.</p> <p>6.1.6. Possess basic web design skills, including using web design software, cascade style sheets and forms, and coding in HTML5 and CSS3 (and their future iterations).</p> <p>6.2. With the above knowledge, be able to use software to design simple webpages, and master the techniques of using online forms to collect client information.</p> <p>6.3. Properly apply programming and web publishing skills to create webpages that conform to the specifications in the web design contract and the company's requirements.</p>
7. Assessment Criteria	The integrated outcome requirement of this unit of competency: (i) Be able to assist in the creation of webpages using programming and web publishing skills.
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has basic knowledge of computer operation.

1. Title	Understand internet technology
2. Code	106275L4
3. Range	Combine internet technologies with established security systems to assist the information technology department of the printing company in providing web-to-print and related services.
4. Level	4
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Understand web-to-print technology.</p> <p>6.1.1. Master the technology for building a website that accepts printing orders online, and providing a client service platform.</p> <p>6.1.2. Understand the technology for sending and receiving files for printing over the internet.</p> <p>6.1.3. Understand internet technology for remotely controlling printing production workflows.</p> <p>6.1.4. Understand the technology for printing images and texts directly over the internet.</p> <p>6.1.5. Possess knowledge relating to web-to-print services, including client data processing, operation workflows, payment, copyright, security, etc.</p> <p>6.1.6. Understand internet password encryption technology for verifying identities of clients placing printing orders online.</p> <p>6.1.7. Understand technology for sending encrypted printing files over the internet.</p> <p>6.1.8. Understand the interface between internet security devices and printing systems.</p> <p>6.2. With the above knowledge, be able to apply internet technologies in tandem with established security systems to support the employing company's web-to-print services.</p> <p>6.3. Be able to assist in the production operations of the online order transaction system, in the light of the scale of the company's web-to-print business.</p>
7. Assessment Criteria	The integrated outcome requirement of this unit of competency: (i) Be able to apply internet technologies together with established security systems to support web-to-print services.
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has basic knowledge of computer and network.

1. Title	Master the techniques for publishing digital audio-visual contents over the internet
2. Code	106276L4
3. Range	Employ the techniques for publishing digital audio-visual (AV) contents over the internet to, among other things, publish AV webpages for the printing company's design or information technology department.
4. Level	4
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Well versed in major publishing techniques for digital AV contents.</p> <p>6.1.1. Well versed in major digital AV file types and formats, and understand the differences between these formats.</p> <p>6.1.2. Understand the modes of digital AV playback over the internet, including the basic structure of the internet, Multipurpose Internet Mail Extensions (MIME), major playback software and plug-ins, streaming and downloading technologies, etc.</p> <p>6.1.3. Master the techniques for publishing digital AV contents over the internet, including the abilities to operate digital AV editing software, calculate digital AV file sizes, compress digital AV files, and prepare digital AV contents for streaming.</p> <p>6.1.4. Well versed in the ways digital AV files are used on multimedia platforms.</p> <p>6.2. With the above knowledge, be able to use digital AV editing software to edit and compress AV files and publish webpages that offer digital AV contents.</p> <p>6.3. Be able to assist in the development of production plans for web publishing jobs, and publication of webpages that offer digital AV contents for internet and multimedia platforms, in accordance with the company's established work schedule and client's requirements.</p>
7. Assessment Criteria	<p>The integrated outcome requirement of this unit of competency:</p> <p>(i) Be able to use techniques for publishing digital AV contents over the internet to, among other things, publish AV webpages.</p>
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has basic knowledge of computer and network.

1. Title	Build an online transaction system catering for printing business
2. Code	106277L6
3. Range	Develop an online transaction system and related organisational structure and management mechanism for the printing company.
4. Level	6
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1 Well versed in the operation of online digital transaction systems.</p> <p>6.1.1. Understand the operation of online digital transaction systems, including transaction protocols, digital transaction encryption technology, ordering and payment systems, copyright laws and firewall technology, etc.</p> <p>6.1.2. Master the automatic features of production instructions.</p> <p>6.1.3. Understand the latest development of web-to-print.</p> <p>6.2 With the above knowledge, develop and set up the operation and transaction management systems for the company's online transaction platform, as well as the related organisational structure and management mechanism.</p> <p>6.3 Be able to lead the staff in complying with the production and confidentiality requirements of web-to-print business, with a view to ensuring that resources are fully utilised and orders are filled in an efficient manner, which will help boost the reputation of the company's online business.</p>
7.. Assessment Criteria	<p>The integrated outcome requirement of this unit of competency:</p> <p>(i) Be able to develop an online transaction system, and related organisational structure and management mechanism in the light of the printing company's goals.</p>
8. Remarks	The credit value of this unit of competency is based on the assumption that learner has knowledge of information technology management for printing business.

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Printing Industry

Functional Areas of Quality
Management

Contents of Units of Competency

1. Title	Understand printing quality management
2. Code	106278L2
3. Range	Follow instructions and assist in, among other things, controlling print quality during production using quality control tools for the printing quality control department or production department.
4. Level	2
5. Credit	3 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Understand the basic principles of print quality control.</p> <p>6.1.1. Understand the principles of printing quality control.</p> <p>6.1.2. Understand print quality control methods.</p> <p>6.1.3. Understand print buyers' quality requirements.</p> <p>6.1.4. Master quality control tools, including the grey scale, color target, cross mark, crop mark, spine number, etc., to ensure stable quality of print products during production.</p> <p>6.1.5. Make proper use of print quality measurement tools, e.g. magnifying glass, thickness gauge and densitometer, etc., to ensure stable print quality during production.</p> <p>6.1.6. Understand how the color settings of UCR/GCR affect printing quality.</p> <p>6.2. With the above knowledge, be able to determine if the print products meet the buyer's requirements.</p> <p>6.3. Be able to follow instructions and assist in controlling print quality during production in the light of established quality requirements using quality control tools.</p>
7. Assessment Criteria	<p>The integrated outcome requirement of this unit of competency:</p> <p>(i) Be able to follow instructions and assist in controlling print quality during production in the light of established quality requirements using quality control tools.</p>
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has basic knowledge of print quality control management.

1. Title	Understand print quality control and management
2. Code	106279L3
3. Range	Using print product quality control tools, assist in establishing quality standards for print products, perform quality control tasks, and address quality issues during production for the print quality control department or production department.
4. Level	3
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Understand the operation of quality management system of the printing department.</p> <p>6.1.1. Understand the methods and standards of print product quality control.</p> <p>6.1.2. Understand the operation of quality management system.</p> <p>6.1.3. Know international standards and verification methods for assessing the quality of major printing materials, such as papers, ink, etc.</p> <p>6.1.4. Master print quality control tools, including grey scale, color target, cross mark, crop mark, spine number, etc., and measurement tools, including magnifying glass, thickness gauge, densitometer, etc.</p> <p>6.1.5. Understand major buyers' expectations for print quality.</p> <p>6.1.6. Master the methods for testing product protection capability of Kraft papers and corrugated papers.</p> <p>6.2. With the above knowledge, be able to assist the printing department in managing product quality, in order to meet the quality standards set out in the orders.</p> <p>6.2.1. Make effective use of print quality control tools to maintain stable product quality and address quality issues during production.</p> <p>6.2.2. Be able to use appropriate testing equipment to determine whether the holding and protection capabilities of Kraft papers and corrugated papers meet international standards before producing corrugated carton boxes.</p> <p>6.2.3. Use appropriate testing equipment to test whether the capability of the corrugated carton box for protecting print products meets international standards during production.</p> <p>6.3. Be able to assist in establishing the mode of quality management and reviewing its efficacy in the light of the company's established quality control standards, and the buyer's expectations for printing quality.</p>
7. Assessment Criteria	<p>The integrated outcome requirement of this unit of competency:</p> <p>(i) Be able to assist in developing quality standards and quality control methods and putting them into practice, and addressing quality issues during production in the light of established printing quality requirements.</p>
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has knowledge of printing quality management.

1. Title	Employ printing standards in establishing a coherent quality assurance mechanism
2. Code	106280L5
3. Range	A printing company certified to various printing standards has the capabilities to meet those standards. As the company empowers its employees of standard-related work processes with the same capabilities and makes sure that these standards are being met at all times through random inspections, it turns these standards into a coherent quality assurance mechanism.
4. Level	5
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Understand how to convert printing standards into routine practices.</p> <p>6.1.1. Be able to identify key aspects of production that have gained stability as a result of adopting printing standards.</p> <p>6.1.2. Promote training for staff of standard-related work processes to make sure they comply with the standards at all time.</p> <p>6.1.3. Invest in instruments and procedures for the purpose of performing random inspections.</p> <p>6.2. With the above knowledge, adopt printing standards in establishing a coherent quality assurance mechanism.</p> <p>6.3. With the data collected through the coherent quality assurance mechanism, constantly propose improvement measures to further improve product quality.</p>
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Be able to turn standards into routine practices.</p> <p>(ii) Be able to administer a coherent quality assurance mechanism.</p>
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has knowledge of printing quality management.

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Printing Industry

Functional Areas of Printing

Machinery

Contents of Units of Competency

1. Title	Know the basic operation of printing machinery
2. Code	106281L1
3. Range	Operate printing machinery in accordance with laid-down instructions to assist in, among other things, the print production work of the production department.
4. Level	1
5. Credit	3 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Know the features and basic structure of printing equipment.</p> <p>6.1.1. Know the major prepress equipment, including digital camera, computer, printer, image output device, colour proofing system, computer-to-plate system, etc.</p> <p>6.1.2. Know the major printing machines, including sheet fed or web printing press, and be able to identify major types of printing presses by paper size, cylinder arrangement topology, printing unit, impression speed, and feeder (i.e. single or continuous sheet feeder) used for printing.</p> <p>6.1.3. Know the major post press equipment, including folding machine, guillotine, saddle stitch machine, hot-stamping machine, perfect bind machine, sewing machine, die-cutting machine, laminating machine, varnishing machine, UV varnishing machine, calendaring machine, etc.</p> <p>6.1.4. Know the related measurement instruments for printing including densitometer and color spectrophotometer, etc.</p> <p>6.2. With the above knowledge, be able to describe and identify major printing equipment.</p> <p>6.3. Be able to follow the department's code of practice for operating printing equipment, and assist in the print production under supervision.</p>
7. Assessment Criteria	The integrated outcome requirement of this unit of competency: (i) Be able to assist in the production operation.
8. Remarks	This unit of competency applies to general printing practitioner.

1. Title	Understand printing machinery maintenance
2. Code	106282L2
3. Range	Carry out machinery maintenance and simple repair work in accordance with laid-down instructions of the print production department.
4. Level	2
5. Credit	3 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Know the features and basic structure of and routine maintenance guidelines for printing equipment.</p> <p>6.1.1. Know the features and basic structure of, and routine maintenance guidelines, repairing tools, materials and methods for prepress equipment, including digital camera, computer, printer, image output device, color proofing system, computer-to-plate system, etc.</p> <p>6.1.2. Know the features and basic structure of, and routine maintenance guidelines, repairing tools, materials and methods for lithographic printing presses (sheet-fed or web-fed), and the design principles, special features and peripheral devices of mainstream printing presses.</p> <p>6.1.3. Know the features, basic structure, and guidelines and methods for routine maintenance of measurement instruments, including densitometer and color spectrophotometer, etc.</p> <p>6.1.4. Know the routine maintenance guidelines, and repairing tools, materials and methods for postpress equipment, including folding machine, guillotine, saddle stitch machine, hot-stamping machine, perfect binding machine, sewing machine, die cutting machine, laminating machine, varnishing machine, UV varnishing machine, calendaring machine, case making machine, casing-in machine, rigid box making machine, etc.</p> <p>6.2. Understand the importance of routine repair and maintenance to the operation of production equipment.</p> <p>6.3. Be able to carry out routine machinery maintenance and repair in accordance with established guidelines under supervision.</p>
7. Assessment Criteria	The integrated outcome requirement of this unit of competency: (i) Be able to carry out regular machinery maintenance and simple repair.
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has basic knowledge of printing machinery.

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Printing Industry Functional Areas
of Colour Management

Contents of Units of Competency

1. Title	Implement colour management standards
2. Code	106283L5
3. Range	Colour management standards are improving steadily. However, different industries vary in their special colour requirements, so buyer and printing companies can only confirm that such requirements have been met through proofing. By having a thorough understanding of the pros and cons of colour management standards, one can instill confidence in the buyer to let the printing company retain the responsibility of colour management. The implementation of colour management standards can help printing companies win the trust of buyer.
4. Level	5
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Understand the limitations of colour management standards.</p> <p>6.1.1. Understand colour conversion between different gamuts. When the source colour gamut is similar to the target colour gamut, colour management standards call for the use of colourimetric intent for conversion. In case of a substantial mismatch between the gamuts, the standards have improved certain control parameters for using perceptual intent rendering. However, a viable set of parameters for saturation intent rendering has yet to be established.</p> <p>6.1.2. Understand that one of the key control factors in the colour conversion is maintaining the black or white points in the source and target files.</p> <p>6.1.3. Understand that colour management standards have to meet the practical requirements of a printing company in multi-colour printing, alteration of printing sequences and accurate colour conversion.</p> <p>6.2. With the above abilities, implement colour management standards to create print products that meet the buyers' requirements.</p> <p>6.3. With the help of colour management standards, pursue the use of RGB workflow to provide buyers with even more diversified colour management services.</p>
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Be able to understand the limitations of color management standards.</p> <p>(ii) Be able to implement color management standard to create print products that meet the buyers' requirements.</p>
8. Remarks	

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Printing Industry

Functional Areas of Product
Structure

Contents of Units of Competency

1. Title	Understand digital storage media
2. Code	106284L2
3. Range	Assist the printing procurement department in the selection of digital storage media, and use appropriate storage media for storing files and related tasks in the production department.
4. Level	2
5. Credit	3 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1 Know digital storage media.</p> <p>6.1.1. Know the different types of digital storage media.</p> <p>6.1.2. Understand network and cloud-based storage services.</p> <p>6.1.3. Understand how files are stored in digital storage media.</p> <p>6.1.4. Understand the safe handling and preservation of digital storage media.</p> <p>6.2 With the above knowledge, assist in the selection of appropriate digital storage media or services for production operations.</p> <p>6.3 Be able to safely handle and preserve digital storage media in accordance with established guidelines under supervision.</p>
7. Assessment Criteria	<p>The integrated outcome requirement of this unit of competency:</p> <p>(i) Be able to assist in the selection of appropriate digital storage media for storing files and related tasks.</p>
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has basic knowledge of computer operation.

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Printing Industry

Functional Areas of Material

Technology

Contents of Units of Competency

1. Title	Know the properties of major printing materials
2. Code	106285L1
3. Range	In the light of the properties and utility of major printing materials for prepress, press and postpress processes, safely produce, store and handle such materials and perform related tasks as instructed by the print production department and warehouse department.
4. Level	1
5. Credit	3 (For reference only)
6. Competency	<p><u>Performance Requirements</u></p> <p>6.1 Know the utility of printing materials and how to use them.</p> <p>6.1.1 Know the properties and utility of major prepress materials (film, printing plates, film and plate chemicals) and how to use them.</p> <p>6.1.2 Know the properties and utility of major printing materials (papers, ink, solvents, fountain solutions, plate materials and polymers) and how to use them.</p> <p>6.1.3 Know the properties and utility of postpress finishing materials (wires, glue and threads) and how to use them.</p> <p>6.1.4 Master the storage, handling and safe use of printing materials.</p> <p>6.1.5 Know the properties and utility of environmentally friendly materials and how to use them.</p> <p>6.2 In the light of the properties and utility of major printing materials for prepress, press and postpress processes, safely produce, store and handle such materials and perform related tasks as instructed by the print production department and warehouse department, and observe the safety guidelines for using dangerous printing materials.</p> <p>6.3 Assist in the safe storage and handling of environmentally friendly materials in accordance with the company's environmental policies.</p>
7. Assessment Criteria	The integrated outcome requirement of this unit of competency: (i) Be able to safely produce, store and handle printing materials and perform related tasks as instructed.
8. Remarks	This unit of competency is applicable to general printing practitioners.

1. Title	Understand the applications of printing materials
2. Code	106286L2
3. Range	Follow instructions and assist the print production department or procurement department in the production and procurement of printing materials.
4. Level	2
5. Credit	3 (For reference only)
6. Competency	<p><u>Performance Requirements</u></p> <p>6.1 Understand the utility and properties of print production materials</p> <p>6.1.1 Understand the properties and utility of prepress materials (film, plates, film and plate chemicals).</p> <p>6.1.2 Understand the properties and utility of printing materials (papers, ink, solvents, fountain solutions, plate materials and polymers).</p> <p>6.1.3 Understand the properties and utility of postpress finishing materials (wires, glue and threads).</p> <p>6.1.4 Understand the properties and utility of environmentally friendly materials, and how to use them.</p> <p>6.2 With the above knowledge, be able to master the optimum combination of printing materials for improving printing quality and assisting in the production operations.</p> <p>6.3 Be able to assist in the procurement of printing materials using practical knowledge of such materials gained from production operations and under supervision.</p>
7. Assessment Criteria	<p>The integrated outcome requirement of this unit of competency:</p> <p>(i) Be able to follow instructions and assist in the production and procurement tasks in the light of the utility and properties of materials for prepress, press and postpress processes.</p>
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has basic knowledge of printing materials.

1. Title	Understand the structures of printing materials
2. Code	106287L3
3. Range	Assist in the testing of printing materials with testing equipment and perform related tasks for print production department.
4. Level	3
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance Requirements</u></p> <p>6.1 Understand the structures of major printing materials, such as papers, printing ink, solvents, plate materials, and polymers.</p> <p>6.1.1 Understand the physical and chemical properties of major printing materials.</p> <p>6.1.2 Understand the printability of major printing materials and their reactions when they are used together.</p> <p>6.1.3 Understand the methods and objectives of testing major printing materials.</p> <p>6.1.4 Understand the concept of carbon footprints for materials.</p> <p>6.2 With the above knowledge, be able to master the testing methods for different types of printing materials and assist in conducting tests by using testing equipment.</p> <p>6.3 Be able to assist in choosing printing materials that are of a good quality, environmentally friendly, and in compliance with the requirements on occupational safety and health in the light of the company's material procurement guidelines.</p>
7. Assessment Criteria	<p>The integrated outcome requirement of this unit of competency:</p> <p>(i) Be able to assist in the testing of printing materials by operating testing equipment.</p>
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has general knowledge of printing materials.

1. Title	Understand printing material testing
2. Code	106288L4
3. Range	Test printing materials and evaluate their printability by using testing equipment for the printing production department.
4. Level	4
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance Requirements</u></p> <p>6.1 Well versed in the testing methods of major printing materials.</p> <p>6.1.1 Understand how and why ink dry on printing substrates, and the related physical and chemical changes.</p> <p>6.1.2 Know the ink formula for major printing methods and materials.</p> <p>6.1.3 Know the manufacturing processes of printing substrates, such as papers and plastic.</p> <p>6.1.4 Know the applications of environmentally friendly papers, including the structures and raw materials of FSC papers and recycled papers, as well as their physical and chemical properties.</p> <p>6.2 With the above knowledge, be able to identify factors that affect the quality and properties of printing substrates (including papers and plastic) during manufacturing.</p> <p>6.3 Based on the physical and chemical properties and printability of different printing materials and their inter-relationship,, conduct testing and evaluations of printing materials.</p>
7. Assessment Criteria	The integrated outcome requirement of this unit of competency: (i) Be able to test and evaluate printing materials and perform related tasks.
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has knowledge of printing materials.

1. Title	Adopt printing material standards
2. Code	106289L5
3. Range	Professional print buyers have emphasized on the importance of meeting printing standards. Apart from the standards for printing workflows, whether standards for printing materials are met is also a decisive factor for buyers. Adopting printing material standards can help meeting the buyer clients' requirements and maintain stable product quality.
4. Level	5
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance Requirements</u></p> <p>6.1 Adopt printing material standards</p> <p>6.1.1 Use ISO 2846-compliant ink as ISO 2846 deals mainly with base colours and transparency of ink, extra care must be taken to make sure that every single base colour's Lab value meets the requirements of the standards, and if the delta hue in two-colour overprint is acceptable when using ISO 2846-compliant ink.</p> <p>6.1.2 Use papers with Lab values that fall within the scope of ISO standards (e.g. ISO 12647). In case of not being able to use standards-compliant papers, compensate for the Lab value deviations with effective calculations.</p> <p>6.1.3 Understand the impact of OBA fluorescent additives on Lab value measurement, and the potential impacts of such chemical additives on product safety.</p> <p>6.2 With the above abilities, adopt printing material standards as appropriate in order to meet the buyer's requirements and maintain stable product quality.</p> <p>6.3 If the printing company fails to meet the buyer's requirements or maintain stable product quality, , determine if the problem lies with using printing materials that do not meet the standards.</p>
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Be able to use standards-compliant printing ink.</p> <p>(ii) Be able to use standards-compliant papers and rectify production parameters to compensate for papers that do not meet the standards.</p>
8. Remarks	

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Printing Industry

Functional Area of Green Printing

Contents of Units of Competency

1. Title	Master the calculation of carbon footprints
2. Code	106290L4
3. Range	Familiar with the calculation method of carbon footprints, be able to explore/propose effective environmental protection proposals, and assist in formulating corporate environmental policies.
4. Level	4
5. Credit	3 (For reference only)
6. Competency	<p><u>Performance Requirements</u></p> <p>6.1 Familiar with the calculation of carbon footprints.</p> <p>6.1.1. Be able to identify carbon footprints arising from print production workflow, including printing materials, computer systems, electrical machinery, plant air-conditioning systems, logistics and transportation, etc.</p> <p>6.1.2. Understand the carbon footprint values of various printing materials.</p> <p>6.1.3. Understand the calculation method of carbon footprints arising from print production workflow.</p> <p>6.1.4. Understand international and local laws and regulations on carbon footprint management for printing industry.</p> <p>6.1.5. Well versed in international and local environmental laws and regulations.</p> <p>6.1.6. Understand international carbon footprint standards such as ISO 16759, PAS 2050, ISO/TS 14067, etc.</p> <p>6.2 With the above knowledge, be able to advise various departments of the printing company on the implementation of energy saving policies and assist in the establishment of green production guidelines.</p> <p>6.3 Be able to assist in monitoring staff performance in reducing carbon emissions, avoiding material wastages and encouraging reuses, in order to meet green standards in print production.</p>
7. Assessment Criteria	<p>The integrated outcome requirements for this unit of competency are:</p> <p>(i) Master the calculation method of carbon footprints, be able to advise various departments of the printing company on the implementation of energy saving and carbon emission reduction policies, and assist in the establishment of green production guidelines.</p> <p>(ii) Be able to assist in monitoring staff performance in reducing carbon emissions.</p>
8. Remarks	The credit value for this unit of competency is based on the assumption that the learner has knowledge of green management in print production.

1. Title	Master print production workflows that meet the international environmental standards
2. Code	106291L4
3. Range	<p>A gradual shift in focus towards global climate change and conservation of forest ecosystem in the international community has led to the establishment of international forest certification systems. The paper mills industry has to adopt certified paper manufacturing processes in order to achieve the goals of using forest resources effectively and conserving the ecosystem.</p> <p>Be able to demonstrate the company's support for the sustainable development of Earth's ecosystem by assisting in the formulation of printing production workflows, paper and raw materials procurement policies and environmental policies that are in compliance with international environmental standards.</p>
4. Level	4
5. Credit	6 (For reference only)
6. Competency	<p>Performance Requirements</p> <p>6.1 Well versed in print production workflows that are in compliance with international environmental standards</p> <p>6.1.1. Understand the variety and latest development of environmentally friendly printing materials, including recycled papers, environmentally friendly printing inks, low VOC solvents, process-less plates, environmentally friendly materials for binding and finishing, etc.</p> <p>6.1.2. Well versed in international environmental standards. such as SGP and ISO 14001.</p> <p>6.1.3. Well versed in China's environmental standards for printing</p> <p>6.1.4. Understand the procedures and requirements for applying for international and Chinese environmental certifications.</p> <p>6.1.5. Understand the economic benefits that environmental certifications bring to the company.</p> <p>6.2 With the above knowledge, be able to assist various departments of the printing company in adopting green printing materials, in order to achieve environmentally friendly production.</p> <p>6.3 Be able to assist the procuring department in choosing printing materials that meet the international environmental standards, in order to comply with client's requirements, production suitability and the printing company's environmental policies.</p>
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Be able to assist various departments of the printing company in adopting green printing materials, in order to achieve environmentally friendly production.</p> <p>(ii) Be able to assist the procuring department in choosing printing materials that meet the international environmental standards.</p>
8. Remarks	The credit value for this unit of competency is based on the assumption that the learner has knowledge of green management in printing production.

1. Title	Master the calculation of electronic/digital media's carbon footprints
2. Code	106292L4
3. Range	Understand the types and calculation of carbon footprints arising from the production and consumption of electronic/digital media in the print-based media publishing sector, and assist the company in formulating environmental policies for electronic/digital media business.
4. Level	4
5. Credit	3 (For reference only)
6. Competency	<p><u>Performance Requirements</u></p> <p>6.1 Understand the types and calculation of carbon footprints relating to electronic/digital media.</p> <p>6.1.1. Understand the types and calculation of carbon footprints relating to e-publishing.</p> <p>6.1.2. Understand power consumption of electronic equipment on standby.</p> <p>6.1.3. Understand the impact of using power-consuming electronic equipment on carbon emissions. For example, increasing power consumption will lead to an increase in the amount of electricity power plants produced, which in turn triggers a domino effect that results in increased greenhouse gas emissions.</p> <p>6.1.4. Understand how piled up electronic wastes originated from short-lived electronic devices impacts the environment and ecosystem.</p> <p>6.2 With the above knowledge, be able to assist the company in formulating environmental policies for its electronic/digital media business, and coordinate the implementation of energy saving and carbon emission reduction workflows across various departments, in order to meet the environmental standards of e-publishing.</p> <p>6.3 Be able to assist in managing the company's electronic/digital media business in accordance with the corporate environmental policies, so as to effectively reduce carbon emissions and enhance the public image of the company in the local community.</p>
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Be able to assist the company in formulating environmental policies for its electronic/digital media business, and coordinate the implementation of energy saving and carbon emission reduction workflows across various departments.</p> <p>(ii) Be able to assist in managing electronic/digital media business in order to effectively reduce carbon emissions.</p>
8. Remarks	The credit value for this unit of competency is based on the assumption that the learner has knowledge of green management in printing production.

1. Title	Formulate corporate environmental policies
2. Code	106293L5
3. Range	Understand the roles of corporate environmental responsibilities and sustainable development in achieving the company's long-term business goals. In addition to proper business operations and management, protecting environment and natural resources could potentially generate more goodwill for the company. In accordance with the company's environmental responsibilities and the concept of sustainable development, implement effective and sustainable development policies and monitor the outcomes of such policies.
4. Level	5
5. Credit	3 (For reference only)
6. Competency	<p><u>Performance Requirements</u></p> <p>6.1 Understand corporate responsibilities and the concept of sustainable development.</p> <p>6.1.1. Understand the key elements of social responsibilities, including environment, labour, social engagement, business ethics and social good and charity, etc.</p> <p>6.1.2. Understand the responsibilities of a green company. In the light of the prevailing environmental laws and regulations, formulate corporate environmental policies and monitor the implementation of environmental policies in outsourced companies.</p> <p>6.1.3. Understand concepts associated with sustainable development, including Earth's ecology, social consensus, and the relationship between environment and economy.</p> <p>6.1.4. Understand local green initiatives. For example, participating in community development, sustaining cultural diversity, recycling and processing wastes, using managed forest papers and environmentally friendly materials, and saving energy and reducing carbon emissions, etc.</p> <p>6.1.5. Well versed in related international environmental standards, such as ISO 26000.</p> <p>6.2 With the above knowledge, be able to formulate corporate environmental policies and staff guidelines, and implement/monitor the implementation of such policies.</p> <p>6.3 Be able to lead the company in carrying through the implementation of environmental policies, supporting sustainable development, and improving staff morale with a view to enhancing productivity and operational efficiency, and gaining competitive advantages and goodwill.</p>
7. Assessment Criteria	The integrated outcome requirement of this unit of competency: (i) Be able to formulate environmental policies and staff guidelines, and implement/monitor the implementation of such policies.
8. Remarks	The credit value for this unit of competency is based on the assumption that the learner has knowledge of green management in printing production.

1. Title	Formulate policies on procurement of environmentally friendly papers
2. Code	106294L5
3. Range	Understand international forestry certification systems in order to undertake paper trading and procurement tasks for the printing company. Identify with the concepts of protecting Earth's ecosystem and sustainable development and be able to raise the company's awareness of green trading and production standards.
4. Level	5
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance Requirements</u></p> <p>6.1 Understand international forestry certification systems.</p> <p>6.1.1. Understand the requirements and scope of various international forestry systems, such as FSC (Forest Stewardship Council), PEFC (Programme for the Endorsement of Forest Certification), SFI (Sustainable Forestry Initiative), etc.</p> <p>6.1.2. Understand the applications of FSC's (Forest Stewardship Council) forest certification labels and certification conditions.</p> <p>6.1.3. Understand international forestry certification systems' application procedures and related documentation.</p> <p>6.1.4. Understand international clients' demands with regard to these certification systems.</p> <p>6.1.5. Understand how international forestry certification systems can help drive the company's product marketing.</p> <p>6.2 With the above knowledge, be able to formulate effective paper trading/ procurement policies, and meet clients' demands for using environmentally friendly papers.</p> <p>6.3 Be able to promote a green culture on the production floor as per the corporate environmental policies, and monitor staff performance in this area.</p>
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Be able to understand the requirements and scope of various international forestry certification systems, such as FSC (Forest Stewardship Council), PEFC (Programme for the Endorsement of Forest Certification), SFI (Sustainable Forestry Initiative), etc.</p> <p>(ii) Be able to formulate effective policies for trading and procuring environmentally friendly papers.</p>
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has knowledge of green management in printing production.

1. Title	Formulate corporate policies on procurement and use of green printing materials
2. Code	106295L5
3. Range	Understand the types, standards and properties of different green printing materials that best suit the production workflows. Formulate effective policies for procuring and using environmentally friendly materials, and monitor the impact of environmentally friendly materials on work efficiency and product quality.
4. Level	5
5. Credit	3 (For reference only)
6. Competency	<p><u>Performance Requirements</u></p> <p>6.1 Understand the types, standards and properties of different green printing materials.</p> <p>6.1.1. Familiar with the green printing materials used by various departments, including recycled papers, environmentally friendly inks, low VOC solvents, process-less plates, environmentally friendly binding and finishing materials, etc.</p> <p>6.1.2. Understand international certification organisations for green printing materials, such as the United States Environmental Protection Authority (EPA), European Standards (EN), American Society for Testing and Materials (ASTM), American National Standards Institute (ANSI), British Standards Institution (BSI), etc.</p> <p>6.1.3. Understand international green materials certification systems, such as FSC (Forest Stewardship Council), PEFC (Programme for the Endorsement of Forest Certification), SFI (Sustainable Forestry Initiative) and ASF (Association for Sustainable Forestry), etc.</p> <p>6.2 With the above knowledge, be able to formulate cost-effective policies for procuring green materials that complement the company's production workflows and meet the clients' demands specified in the purchase orders.</p> <p>6.3 Be able to coordinate various production departments in the use of environmentally friendly materials as per the corporate environmental policies, and monitor the impact of environmentally friendly materials on work efficiency and product quality.</p>
7. Assessment Criteria	The integrated outcome requirements of this unit of competency are: (i) Be able to formulate cost-effective policies for procuring green materials that complement the company's production workflows. (ii) Be able to monitor the impact of environmentally friendly materials on work efficiency and product quality.
8. Remarks	The credit value for this unit of competency is based on the assumption that the learner has knowledge of green management in printing production.

Printing and Publishing Industries
“Specification for Competency
Standards”

First Edition Supplement

(Covering revised or new units of competency only)

Printing Industry

Functional Areas of e-Commerce

Contents of Units of Competency

1. Title	Understand the deployment of e-commerce in printing industry
2. Code	106296L4
3. Range	In view of the rapid development and prevalence of computer and network technology, be able to assist in the promotion of e-commerce in the printing company. Electronic transactions enable the printing company to simplify its structure, cut costs, improve efficiency and enhance customer service quality.
4. Level	4
5. Credit	3 (For reference only)
6. Competency	<p><u>Performance Requirements</u></p> <p>6.1 Master the deployment of e-commerce in printing companies</p> <p>6.1.1. Understand the specific conditions for implementing e-commerce, such as organisational structure, marketing, customer services, production workflow and control, order fulfillment processes, inventory and payment gateway management, etc.</p> <p>6.1.2. Understand the laws and regulations pertaining to e-commerce, such as Personal Data (Privacy) Ordinance, Unsolicited Electronic Messages Ordinance, Electronic Transactions Ordinance, software licensing regimes, etc.</p> <p>6.1.3. Understand the risk factors of e-commerce, including data security and backup, site risk assessment, firewall installation, preventive measures against hacking, code of confidentiality and insurance clauses, etc.</p> <p>6.1.4. Understand the configuration, operation and maintenance of hardware, software and network security systems for implementing e-commerce.</p> <p>6.1.5. Understand the selection criteria for online payment gateway service providers, and the importance of designing an effective payment system.</p> <p>6.2 With the above knowledge, and in the light of the printing company's online sales strategies and macro business environment, be able to assist the company in implementing e-commerce, and ensure secure and efficient electronic transactions between the company and its customers.</p> <p>6.3 Assist the printing company in determining the scope of business and specific equipment required for implementing e-commerce, strictly observing laws and regulations pertaining to e-commerce, and preventing the e-commerce platform from being abused for fraudulent/ illegal purposes.</p>
7. Assessment Criteria	The integrated outcome requirement of this units of competency: (i) Be able to assist the printing company in implementing e-commerce and determining the scope of business and the specific equipment required for e-commerce.
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has basic knowledge of e-commerce.

1. Title	Understand the customer services of e-commerce in printing industry
2. Code	106297L4
3. Range	Be able to assist the employing printing company in developing and maintaining a set of proven customer service guidelines and building a positive marketing image for the company's e-commerce arm, in order to attract new customers and retain existing ones while creating favourable conditions for generating higher turnover and profits .
4. Level	4
5. Credit	3 (For reference only)
6. Competency	<p><u>Performance Requirements</u></p> <p>6.1 Understand the major aspects of customer service in e-commerce</p> <p>6.1.1. Understand the establishment and maintenance of a customer service system.</p> <p>6.1.2. Understand customers' online shopping requirements and practices.</p> <p>6.1.3. Understand how to establish effective communication channels, such as hotlines, online help desks, social networking sites, etc., for engaging customers.</p> <p>6.1.4. Understand the key elements to be included in the customer service guidelines, such as the authority conferred on different ranks of staff, ways of handling complaints, etc.</p> <p>6.1.5. Master how to train staff in the customer service department to deliver quality services.</p> <p>6.2 With the above knowledge, be able to assist the employing company in establishing and maintaining an effective customer service system, and providing good e-commerce customer services.</p> <p>6.3 In the light of the company's operational policies, assist the customer service department in keeping abreast with customer requirements and market changes, and regularly reviewing the quality of customer service to ensure its continued excellence.</p>
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Understand customers' online shopping requirements and practices.</p> <p>(ii) Understand how to establish effective communication channels for engaging customers.</p> <p>(iii) Be able to assist in the drawing up of a set of customer service guidelines.</p> <p>(iv) Master how to train staff in the customer service department to deliver quality services.</p>
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has basic knowledge of customer service.

1. Title	Establish order fulfillment system for e-commerce in printing industry
2. Code	106298L5
3. Range	Considering that customers tend to expect their orders be delivered swiftly and without hassles when they shop online from an e-commerce company in the printing and publishing industry, be able to assist the employing company in establishing and managing an effective order fulfillment system and network, in order to improve customer satisfaction, reduce inventory costs, and create favourable conditions for the company to generate higher turnover and profits.
4. Level	5
5. Credit	3 (For reference only)
6. Competency	<p><u>Performance Requirements</u></p> <p>6.1 Master the establishment and management of an order fulfillment system for the company's e-commerce business.</p> <p>6.1.1. Understand online customers' delivery preferences, including self pick-up, postal, courier, and door-to-door vehicle delivery services, etc.</p> <p>6.1.2. Skilled in calculating the operating costs of different delivery methods.</p> <p>6.1.3. Understand the printing production workflow and control system which is essential for estimating the required production lead time and ensuring the timely completion of orders.</p> <p>6.1.4. Understand the operation of an effective order fulfillment system, including creating delivery schedules, notifying customers of delivery status, confirming delivery/receipt of payment, defining the delivery team's service scope and guidelines, managing the return process, etc.</p> <p>6.2 With the above knowledge, be able to establish and manage an effective order fulfillment system, and ensure timely and proper delivery of print products to customers.</p> <p>6.3 Be able to continuously monitor the service standards of the order fulfillment system, and regularly review the effectiveness of delivery services.</p>
7. Assessment Criteria	<p>The integrated outcome requirement of this unit of competency are:</p> <p>(i) Be able to calculate the operating costs of different delivery methods.</p> <p>(ii) Understand the printing production workflow and control system and be able to estimate the production lead time required.</p> <p>(iii) Be able to establish and manage an effective order fulfillment system for print products.</p>
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has basic knowledge of customer service.

1. Title	Set up online store for e-commerce in printing industry
2. Code	106299L5
3. Range	Considering that customers tend to spend more in online stores that are creatively designed with a user-friendly interface, be able to assist the employing printing company in setting up and managing an online printing store, in order to attract customers to make use of the e-commerce platform for shopping print products.
4. Level	5
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance Requirements</u></p> <p>6.1 Master the design and maintenance of online stores.</p> <p>6.1.1. Understand customers' online shopping requirements and practices.</p> <p>6.1.2. Understand the configuration, operation and maintenance of major hardware, software and network security systems for implementing e-commerce.</p> <p>6.1.3. Understand laws and regulations pertaining to e-commerce, including Personal Data (Privacy) Ordinance, copyright laws, Unsolicited Electronic Messages Ordinance, Electronic Transactions Ordinance, software licensing regimes, etc.</p> <p>6.1.4. Well versed in the key factors for designing pleasant-looking and user-friendly webpages that allow customers to do product searches and acquire necessary information through the online store, including the types and prices of different print products; instructions for placing and confirming an order and its billing amount; how to upload image and text files; how to use pre-designed templates; payment methods; order's delivery status; and the confirmed delivery schedule, etc.</p> <p>6.1.5. Understand the effective management of customers' uploaded files and their activity logs</p> <p>6.2 With the above knowledge, be able to set up and manage an effective online printing store, allowing customers to enjoy secure online ordering services.</p> <p>6.3 Be able to assess the effectiveness of the employing company's online store, keep abreast of the changes and trends of online shopping market, and regularly update the content and improve the ease of use and attractiveness of the online store.</p>
7. Assessment Criteria	The integrated outcome requirements of this unit of competency are: (i) Be able to set up and manage the system of an effective online printing store. (ii) Be able to assess the effectiveness of the online printing store.
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has basic knowledge of e-commerce and webpage design.

1. Title	Establish marketing plan and sell the non-paper based print products through e-commerce in printing industry
2. Code	106300L5
3. Range	Considering that printing companies have to introduce innovative products and services to retain its competitive edge in a fiercely competitive market, be able to use new printing technology together with non-paper based materials to produce creative products, then market and sell them through electronic platforms.
4. Level	5
5. Credit	3 (For reference only)
6. Competency	<p><u>Performance Requirements</u></p> <p>6.1 Familiar with the latest printing technology, the applications of non- paper based printing materials and e-commerce.</p> <p>6.1.1. Understand the market potential of non-paper based print products.</p> <p>6.1.2. Understand the methods and workflow of producing non-paper based print products, including the printing technology and equipment involved.</p> <p>6.1.3. Well versed in the costing structures and investment strategies of new categories of products.</p> <p>6.1.4. Well versed in the operational strategies for marketing and selling new products through electronic platforms.</p> <p>6.2 With the above knowledge, analyse the market trends and demand for creative and personalised products, in order to develop production plans for innovative products.</p> <p>6.2.1 Assess market trends and demand for creative products, such as fridge magnets, personalised stationery sets, glass or wooden ornaments, personalised clothing items, business card holders, etc.</p> <p>6.2.2 Set the themes and develop market positioning and production plans for new products.</p> <p>6.3 Coordinate various departments of the company in using new printing technology to produce non-paper based printed products in a cost-effective matter, then market and sell them through electronic platforms.</p>
7. Assessment Criteria	<p>The integrated outcome requirements of this units of competency are:</p> <p>(i) Be able to set the themes and develop market positioning and production plans for creative print products.</p> <p>(ii) Be able to use new printing technology together with non-paper based printing materials to produce creative products.</p> <p>(iii) Be able to market and sell creative print products through electronic platforms.</p>
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has basic knowledge of printing production and e-commerce.

1. Title	Establish network security system for e-commerce in printing industry
2. Code	106301L5
3. Range	Network security is essential to a printing company engaged in e-commerce. An effective network security system ensures that all transactions are confidential and legal while protecting the interests of both buyers and sellers. In view of this, be able to assist the employing company in building and managing an effective network security system for buying and selling print products.
4. Level	5
5. Credit	3 (For reference only)
6. Competency	<p><u>Performance Requirements</u></p> <p>6.1 Well versed in the establishment and maintenance of a network security system for e-commerce.</p> <p>6.1.1. Understand the applied technology for building a network security system for e-commerce.</p> <p>6.1.2. Well versed in the laws and regulations pertaining to e-commerce, including Personal Data (Privacy) Ordinance, guidelines on online payment, software licensing regimes, etc.</p> <p>6.1.3. Understand e-commerce risk assessment and management, including data security and backup, site risk assessment, firewall installation, preventive measures against hacking, negotiation of insurance clauses, etc.</p> <p>6.1.4. Understand the configuration, operation and maintenance of hardware, software, and network security systems for implementing e-commerce.</p> <p>6.2 With the above knowledge, be able to set up and maintain an effective network security system for e-commerce to ensure that all transactions are confidential and legal, while protecting the interests of both buyers and sellers; and provide customers with a secure electronic fund transfer system and monitor the security of the system regularly.</p> <p>6.2.1 Draw up e-commerce security guidelines and implement security measures such as using electronic certificates, encryption technology, etc.</p> <p>6.2.2 Draw up a code of confidentiality for staff's compliance, such as defining the authority conferred on different ranks of staff, etc.</p> <p>6.2.3 Establish an effective monitoring system to ensure secure e-commerce transactions.</p> <p>6.3 Be able to gather information about the latest network security systems and assess their effectiveness; monitoring the safety level of network security system and its backup and restore features; and regularly upgrade the safety level of the company's e-commerce system.</p>
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Be able to build and maintain an effective network security system for e-commerce; and</p> <p>(ii) Be able to gather information about the latest network security systems and assess their effectiveness.</p>
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has basic knowledge of network security system.

1. Title	Establish payment gateway system for e-commerce in printing industry
2. Code	106302L5
3. Range	Be able to choose an appropriate payment gateway service provider to allow the printing company and its customers to make electronic fund transfers over the internet in a secure and efficient manner.
4. Level	5
5. Credit	3 (For reference only)
6. Competency	<p><u>Performance Requirements</u></p> <p>6.1 Well versed in the implementation and maintenance of an online electronic payment system for e-commerce.</p> <p>6.1.1. Understand the network security technology for implementing an e-commerce payment system.</p> <p>6.1.2. Well versed in the laws and regulations pertaining to e-payment, such as Personal Data (Privacy) Ordinance, anti-money laundering laws, online transaction limits, etc.</p> <p>6.1.3. Well versed in the hardware and software configurations, and the implementation, deployment and maintenance of a secure network for the e-commerce payment system.</p> <p>6.1.4. Understand risk assessment and management regarding e-commerce payment system, including data encryption and backup, and preventive measures against hacking, etc.</p> <p>6.1.5 Familiar with the reputation and characteristics of online payment gateway service providers in the market, including their respective market shares, efficiency in the delivery of services, security levels, and service charges, etc.</p> <p>6.2 With the above knowledge, be able to choose an appropriate online payment gateway service provider to allow the company and its customers to make electronic fund transfers over the internet in a secure, efficient and straightforward manner, and regularly monitor the system to ensure secure e-commerce transactions.</p> <p>6.2.1 Draw up e-commerce security guidelines and implement security measures such as using electronic certificates, encryption technology, etc.</p> <p>6.2.2 Draw up a code of confidentiality for staff's compliance, such as defining the authority conferred on different ranks of staff, etc.</p> <p>6.2.3 Establish an effective monitoring system to ensure the security of e-commerce.</p> <p>6.2.4 Manage customer files and activity logs properly.</p> <p>6.3 Be able to monitor the service performance of the chosen online payment gateway service provider.</p>

7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <ul style="list-style-type: none"> (i) Be able to choose an appropriate payment gateway service provider to allow the company and its customers to make electronic fund transfers over the internet in a secure and efficient manner. (ii) Be able to monitor the service performance of the chosen online payment gateway service provider. (iii) Be able to ensure that the operation of the online payment system is in compliance with the relevant government laws and regulations, and prevent any abuse and corrupt practices.
8. Remarks	<p>The credit value of this unit of competency is based on the assumption that the learner has basic knowledge of network security system.</p>

1. Title	Establish marketing plan for e-commerce in printing industry
2. Code	106303L5
3. Range	<p>In a highly competitive business environment, effective marketing strategies are essential to a company's survival and long term success. Apart from mainstream media, online media is also playing a very important role in marketing.</p> <p>Be able to help the printing company market print products effectively through network media, such as mobile apps, discussion boards, social media, etc.</p>
4. Level	5
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1 Well versed in the marketing effectiveness of various electronic media on the internet.</p> <p>6.1.1. Understand regular online shoppers' characteristics and requirements.</p> <p>6.1.2. Understand the marketing effectiveness of various electronic media on the internet.</p> <p>6.1.3. Well versed in customer relationship management.</p> <p>6.2 With the above knowledge, be able to assess the marketing and cost effectiveness of various electronic media on the internet; lead a team to develop creative marketing campaigns; pick the most cost-effective online media partner; and promote printed products to target customers.</p> <p>6.3 Be able to monitor and assess business performance after launching online marketing campaigns, and remain vigilant of any changes in target customers' demands; creatively update the company's marketing strategy on a regular basis to stimulate customers' desire to purchase its products.</p>
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Be able to lead a team to develop creative marketing campaigns.</p> <p>(ii) Be able to pick the most cost-effective online media partner to help promote print products.</p> <p>(iii) Be able to monitor and assess business performance after launching online marketing campaigns.</p>
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has basic knowledge of marketing management.

1. Title	Plan for the establishment of e-commerce business for a printing company
2. Code	106304L6
3. Range	In view of the rapid development and prevalence of computer and network technology, be able to plan and lead the printing company's efforts in launching its e-business. Electronic transactions enable the company to streamline its structure, cut costs, improve efficiency and enhance customer service quality.
4. Level	6
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirement</u></p> <p>6.1 Well versed in the operation, establishment and maintenance of e-commerce.</p> <p>6.1.1. Understand all the pre-requisites for engaging in e-commerce.</p> <p>6.1.2. Well versed in laws and regulations pertaining to e-commerce, such as Personal Data (Privacy) Ordinance, Unsolicited Electronic Messages Ordinance, Electronic Transactions Ordinance, software licensing regimes, etc.</p> <p>6.1.3. Understand the costs, returns on investment and risk associated with developing and operating an e-commerce company.</p> <p>6.1.4. Study the successful experiences of other e-commerce companies, including such areas as organisational structure, marketing and sales plan, information technology management, production team, financial control, logistics system, human resources and administration management, etc.</p> <p>6.2 With the above knowledge, be able to identify the mode and scale of operations, target markets, etc. of the company's e-commerce arm, and lead the staff of various departments in establishing the company's e-commerce business.</p> <p>6.3 Be able to establish the company's long-term strategies, and lead the company in achieving its profit goals in e-commerce by drawing upon the successful experiences of other e-commerce companies.</p>
7. Assessment Criteria	The integrated outcome requirement of this unit of competency: (i) Be able to identify the mode and scale of operations, target markets, etc, of the company's e-commerce arm.
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has basic knowledge of e-commerce management.

1. Title	Establish financial management system for e-commerce in printing industry
2. Code	106305L6
3. Range	<p>Be able to soundly manage the company's finance and properly handle and address shareholders and external parties' concerns when necessary.</p> <p>An effective financial management system can reflect the health of the company, and heighten the company's reputation and visibility.</p>
4. Level	6
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1 Well versed in the operation and accounting mechanism of e-commerce financial system</p> <p>6.1.1. Understand financial regulations and accounting systems pertaining to e-commerce.</p> <p>6.1.2. Understand the calculation of the cost of developing and conducting e-commerce, as well as the evaluation of the returns on investment and related risk.</p> <p>6.1.3. Understand the means of raising operating capital.</p> <p>6.1.4. Understand the calculation of the costs of e-commerce and product production.</p> <p>6.1.5. Understand the effective and secure means for receiving e-commerce payments.</p> <p>6.2 With the above knowledge, be able to establish an effective financial management system to support the company's e-commerce operation, including managing cash flow, controlling cost, monitoring investment and financial performance, and preparation of financial statements, etc.</p> <p>6.3 Be able to project operating profit of the company's e-commerce operation, and lead various departments in controlling costs and expenses, in order to ensure reasonable returns on the company's investment.</p>
7. Assessment Criteria	<p>This integrated outcome requirements of this unit of competency are:</p> <p>(i) Be able to establish an effective financial management system for supporting the company's e-commerce operation.</p> <p>(ii) Be able to lead various departments in controlling costs and expenses.</p>
8. Remark	

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First Edition Supplement

(Covering revised or new units of competency only)

Publishing Industry

Functional Area of Management

Contents of Units of Competency

1. Title	Understand publishing enterprise management
2. Code	106306L5
3. Range	In accordance with the established policy in a publishing enterprise, formulate management strategy for the enterprise, and implement publishing management and related tasks.
4. Level	5
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance Requirements</u></p> <p>6.1 Understand the vision, mission and business goals of a publishing enterprise.</p> <p>6.1.1 Understand how the structure and management system is set in a publishing enterprise.</p> <p>6.1.2 Understand the characteristics of financial management, cash return and tax obligations, etc. of a publishing enterprise.</p> <p>6.1.3 Understand human resources management in a publishing enterprise, including recruitment, development and retention of talent.</p> <p>6.1.4 Understand the governance and administration of publishing, and relevant regulations and system in the place of publication.</p> <p>6.1.5 Understand project management in the context of eBook publishing, including human resources management, financial management, production workflow, etc.</p> <p>6.2 Based on the above knowledge, be able to assess the situation of the relevant enterprise and market, and establish publishing plans for different products.</p> <p>6.3 Within the framework of the enterprise's established vision, mission and business goals, be able to develop and implement publishing product marketing plan, which includes financial plan, operation capital, human resources coordination, administration and tax provision appropriate for the place of publication, and monitor the overall implementation process.</p>
7. Assessment Criteria	<p>This integrated outcome requirement of this unit of competency:</p> <p>(i) Be able to implement effective administration and management of publishing related tasks in accordance with established strategy and direction.</p>
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has publishing enterprise operation management knowledge.

1. Title	Understand the applications of e-commerce in publishing industry
2. Code	106307L5
3. Range	At management level in a publishing enterprise, reaps the benefits of e-commerce in a variety of perspectives through an understanding of its applications in the industry. The e-Commerce applications include customer service, marketing management, design of online shop website, network security management, payment gateway system management, financial management, delivery management, and relevant laws and regulations. .
4. Level	5
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance Requirements</u></p> <p>6.1 Understand the applications of e-commerce in publishing industry</p> <p>6.1.1 Understand the applications of e-commerce in publishing industry, which include customer service, marketing management, online shop website design, network security management, payment system management, financial management, delivery management and relevant laws and regulations.</p> <p>6.2 Based on the above knowledge, lead various departments in the implementation of e-commerce, and regularly evaluate its cost effectiveness .</p> <p>6.3 Make adjustments to e-commerce business operations in response to the company's development and market changes, so as to maximize the benefits to the company.</p>
7. Assessment Criteria	<p>This integrated outcome requirements of this unit of competency are:</p> <p>(i) Be able to master the applications of e-commerce in publishing industry,</p> <p>(ii) Be able to lead various departments in the implementation of e-commerce business, and to evaluate the cost effectiveness of which on a regular basis.</p>
8. Remarks	

1. Title	Understand the global development trend of media and entertainment industries and their interactive shares in total market size
2. Code	106308L5
3. Range	In the context of a publishing enterprise, understand the globalization which has brought the media and entertainment industries into a common platform of competition in many countries. Track the respective market shares of the media and entertainment industries and be able to indicate the relative position and role of publishing.
4. Level	5
5. Credit	3 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1 Understand the global development trend of media and entertainment industries.</p> <p>6.1.1 Understand the latest technology development and business outlook of media and entertainment industries in different countries.</p> <p>6.1.2 Understand changes of reader groups' demand in media and entertainment.</p> <p>6.1.3 Understand respective market shares of media and entertainment industries, which interacts with each other.</p> <p>6.2 Analyze the impact on publishing industry brought about by media and entertainment industries, so as to master the relative position and role to play by publishing industry.</p> <p>6.3 Track the development of media and entertainment industries, and advise management team on the development strategy for the company.</p>
7. Assessment Criteria	<p>This integrated outcome requirements of this unit of competency are:</p> <p>(i) Be able to understand the development trend of media and entertainment industries, and their respective market shares and interaction.</p> <p>(ii) Be able to analyze the impact on publishing industry brought about by media and entertainment industries, so as to master publishing industry's relative position and role to play.</p>
8. Remarks	

1. Title	Set short term and long term goals for publishing enterprise
2. Code	106309L6
3. Range	Set short term and long term goals for a publishing enterprise, review and evaluation on a regular basis, and adjust the goals accordingly.
4. Level	6
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance Requirements</u></p> <p>6.1 Master the situation and development of publishing industry and establish enterprise business goals.</p> <p>6.1.1 Understand current political environment and its development trend in both local and global context.</p> <p>6.1.2 Assess the global and local economy in terms of their current situation and development trend.</p> <p>6.1.3 Understand new technology locally and around the world, and their development trend.</p> <p>6.1.4 Understand competitors' current status and development potential .</p> <p>6.1.5 Understand society's needs for publishing.</p> <p>6.1.6 Understand the current situation and development potential of customers in publishing customers.</p> <p>6.1.7 Understand the current status and development trend in different publishing media.</p> <p>6.1.8 Understand shareholders' expectation and requirements on enterprise development.</p> <p>6.1.9 Understand the staff's requirement on enterprise.</p> <p>6.1.10 Understand the current status and development potential of eBook publishing.</p> <p>6.2 Based on the above knowledge, be able to assess the enterprise's operation capability, and strategically develop the operation masterplan for the enterprise.</p> <p>6.3 Be able to comprehend the development trend of global and local publishing industry, and to set short and long term development goals with reference to the internal and external factors of the enterprise.</p>
7. Assessment Criteria	<p>This integrated outcome requirement of this unit of competency:</p> <p>(i) Based on external and internal factors, set short term and long term goals for a publishing enterprise, review and evaluate on a regular basis, and adjust the goals and when necessary.</p>
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has knowledge on operation management of publishing enterprise .

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(Covering revised or new units of competency only)

Publishing Industry
Functional Area of Editing

Contents of Units of Competency

1. Title	Carry out electronic/online publication processing and production
2. Code	106310L5
3. Range	Execute and manage electronic/online processing and production and perform related task in a publishing enterprise.
4. Level	5
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Master e-publishing workflow</p> <p>6.1.1. Master the method and process of basic categories of work in editing, production, reprographic and distribution for e-publishing.</p> <p>6.1.2. Understand the technology for copyrights protection.</p> <p>6.1.3. Understand the provisions of hardware/software for electronic/online publishing and other necessary conditions.</p> <p>6.1.4. Understand the production technology and workflow of e-book.</p> <p>6.2. Based on the above knowledge, carry out and manage work related to electronic/online production and processing.</p> <p>6.3. Be able to establish publishing plans for e-book, electronic/online publishing materials in line with the business objectives of the publishing enterprise, and carry out and manage work related to electronic/online production and processing. Editing, production, reprographic, distribution and copyrights protection are included in the publishing plans.</p>
7. Assessment Criteria	<p>The integrated outcome requirement of this unit of competency:</p> <p>(i) Be able to apply electronic/online publishing editing, production, reprographic, distribution and copyrights protection technology in carrying out and managing work related to electronic/online processing and production.</p>
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has knowledge of publishing.

1. Title	Execute electronic/online publishing
2. Code	106311L5
3. Range	Execute and manage electronic/online publishing and perform related tasks in a publishing enterprise.
4. Level	5
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Master the knowledge on regulations related to electronic/online publishing management in the place of publication.</p> <p>6.1.1. Master the technique and workflow of e-book production.</p> <p>6.2. Based on the above knowledge and rules on management of electronic/online publishing of the place of publishing, execute and manage electronic/online publishing.</p> <p>6.3. Be able to holistically monitor the e-book, electronic/online publishing projects of the employer enterprise, and meet the related rules and regulations of management and electronic/online publishing in the place of publication.</p>
7. Assessment Criteria	<p>The integrated outcome requirement of this unit of competency:</p> <p>(i) Be able to execute and manage electronic/online publishing that can meet the rules of management for electronic/online publishing in the place of publishing.</p>
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has knowledge of publishing.

1. Title	Execute AV processing and production
2. Code	106312L5
3. Range	Execute AV processing and production and perform related tasks in e-publishing enterprise.
4. Level	5
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Understand basic categories of AV publishing, and master the work in editing, production, reprographic, and distribution, etc.</p> <p>6.1.1. Master the operation mode and workflow in the editing, production, reprographic, and distribution of AV publishing.</p> <p>6.1.2. Master technology for copyrights protection.</p> <p>6.1.3. Master the technical facilities necessary for AV publishing.</p> <p>6.1.4. Understand the production, application and operation of AV in transmedia publications.</p> <p>6.2. Based on the above competency, be able to execute and manage and the production of AV publishing.</p> <p>6.3. Be able to holistically monitor the works in editing, production, reprographic, distribution, etc. of AV publishing for the enterprise, while ensuring compliance with copyright protection laws in the place of publishing.</p>
7. Assessment Criteria	The integrated outcome requirement of this unit of competency: (i) Be able to apply technology in editing, production, reprographic, distribution and copyrights protection in the production of AV publishing.
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has knowledge of publishing.

1. Title	Execute AV publishing
2. Code	106313L5
3. Range	Execute and manage AV publishing and perform related tasks in a publishing enterprise.
4. Level	5
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Understand regulatory requirements on AV publishing in the place of publishing</p> <p>6.1.1. Master rules and regulations for management of AV publishing in the place of publication</p> <p>6.1.2. Master the development trend of transmedia in the place of publishing.</p> <p>6.1.3. Master the regulations on AV publishing in transmedia .</p> <p>6.2. Based on the above knowledge, execute and manage AV publishing with compliance to regulations related to management of AV publishing in the place of publishing.</p> <p>6.3. Be able to develop strategy for AV publishing in transmedia, in order to meet the needs of readers and the development of enterprise.</p>
7. Assessment Criteria	<p>The integrated outcome requirement of this unit of competency:</p> <p>(i) Be able to execute and manage AV publishing with compliance to regulations related to management of AV publishing in the place of publishing.</p>
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has knowledge of publishing.

1. Title	Master subject selection and commissioning in the editorial process of publishing
2. Code	106314L5
3. Range	In a publishing enterprise, master and implement subject selection, commissioning and planning in the editorial process. It includes an understanding of the management of project commissioning, contents, categories and structure of the commissioning plan, as well as its features, concepts, formation and adjustment. It also involves a mastery of the basic steps in subject selection, commissioning and planning, including the contents of books, the establishment and optimisation of commissioning, and the methods and procedure in assembling manuscripts.
4. Level	5
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Understand the work of commissioning and planning in the editorial process.</p> <p>6.1.1. Understand the management of establishing projects for commissioning, the contents, categories and structure, and the features with associated formation and adjustment in the plan of commissioning.</p> <p>6.1.2. Demonstrate a good understanding on the implementation of the concept and assembling of manuscripts of commissioning and planning.</p> <p>6.1.3. Master the basic steps in subject selection, commissioning and planning, including the contents of book, the establishment and adjustment in the plan, and the methods and procedure in the assembly of manuscripts.</p> <p>6.2. Based on the above competency, lead and manage a department in the effective execution of commissioning and planning.</p> <p>6.3. Based on the branding and development of the enterprise, make recommendations for the direction of subject selection, commissioning and planning for the enterprise</p>
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Be able to understand the work of commissioning and planning in the editorial process, and be acquainted with the implementation of concept and assembling of manuscripts in commissioning and planning.</p> <p>(ii) Be able to lead and manage a department in the effective execution of commissioning and planning.</p>
8. Remarks	

1. Title	Formulate copyright management strategy
2. Code	106315L6
3. Range	Formulate copyright management strategy and perform related tasks in a publishing enterprise.
4. Level	6
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Understand the relationships of copyrights among different media.</p> <p>6.1.1. Understand the relationships of copyrights for print-media/e-book/multi-media/online publishing in different countries and in mutual transfers across media.</p> <p>6.2. Based on the above knowledge, be able to formulate an effective copyright management strategy.</p> <p>6.3. Be able to lead the implementation of copyright management strategy in an enterprise to meet the copyright laws and regulations for different media in the place of publishing.</p>
7. Assessment Criteria	<p>The integrated outcome requirement of this unit of competency:</p> <p>(i) Be able to formulate an effective copyright management strategy based on the relationships of mutual transfer across different media in the place for publishing.</p>
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has knowledge in copyright.

1. Title	Implement subject selection, commissioning and planning in trans-region publishing
2. Code	106316L6
3. Range	In a publishing enterprise, master subject section, commissioning and planning in trans-region publishing, including an understanding of the method and requirements for the regions outside Hong Kong, and development of commissioning and planning in the regions, especially the opportunities and market effectiveness. Master the contents for publications on top of books, trans-region cooperation in selection of subject and optimization of requirements, methods and procedure in assembling manuscripts.
4. Level	6
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Understand subject selection, commissioning and planning in trans-region publishing.</p> <p>6.1.1. Understand the way of editorial work and requirements in subject selection, commissioning and planning in regions outside of Hong Kong.</p> <p>6.1.2. Understand the development of commissioning and planning in the regions, especially about market opportunities and effectiveness.</p> <p>6.1.3. Master subject selection, commissioning and planning in publishing materials on top of books.</p> <p>6.2. Based on the above competency, be able to analyse the requirements, methods and procedure of subject selection and assembling of manuscripts in trans-region cooperation, so as to lead the enterprise in trans-region publishing in subject selection, commissioning and planning.</p> <p>6.3. Assess the return on investment for trans-region commissioning and planning, and formulate long term strategy in publishing for the enterprise.</p>
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Be able to implement trans-region subject selection, commissioning and planning, to understand the method of editorial work and requirements in commissioning and planning in regions outside of Hong Kong, to understand the development in these regions, and contents for commissioning and planning in publishing materials in on top of books.</p> <p>(ii) Be able to analyse the requirements, method and procedure of assembling manuscripts, and optimisation of trans-region subject selection, commissioning, and lead the enterprise in implementing the related work plan.</p>
8. Remarks	

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Publishing Industry

Functional Area of Art and Design

Contents of Units of Competency

1. Title	Know multimedia design skills
2. Code	106317L2
3. Range	Assist in digital multimedia production and archive according to instructions, and to make use of digital multimedia software to perform related tasks in a publishing design department.
4. Level	2
5. Credit	3 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Know basic design techniques in digital multimedia</p> <p>6.1.1. Know the types of digital media, such as web publishing, digital video, digital animation, digital audio, etc.</p> <p>6.1.2. Know digital multimedia production method.</p> <p>6.1.3. Know application software of digital multimedia production.</p> <p>6.1.4. Know production methods of transmedia</p> <p>6.2. Based on the above competency, be able to use digital multimedia software for designing and producing e-publishing materials.</p> <p>6.3. Be able to follow preset work instructions to assist the production of digital multimedia, and to archive files of digital multimedia in a safe and secured way.</p>
7. Assessment Criteria	<p>The integrated outcome requirement of this unit of competency:</p> <p>(i) Be able to use digital multimedia software based on instructions, and assist production and archive of multimedia.</p>
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has basic multimedia design knowledge.

1. Title	Understand multimedia design skills
2. Code	106318L3
3. Range	Use digital multimedia software to design and produce digital multimedia publications that fulfil the requirements, and perform related tasks in a design department.
4. Level	3
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Understand the types and functions of digital multimedia publications.</p> <p>6.1.1. Understand functions of digital multimedia publications.</p> <p>6.1.2. Understand readers' requirements for digital multimedia publications.</p> <p>6.1.3. Understand features and functions of major digital multimedia application software used in production.</p> <p>6.1.4. Understand design and production skills for digital multimedia publications.</p> <p>6.1.5. Understand production methods for transmedia.</p> <p>6.2. Based on the above competency, be able to flexibly use various digital multimedia software in the design and production of digital multimedia publication that meet the requirements.</p> <p>6.3. Be able to assist department to execute design and production of digital multimedia publications based on enterprise's marketing research results on publication materials.</p>
7. Assessment Criteria	<p>The integrated outcome requirement of this unit of competency:</p> <p>(i) Be able to use digital multimedia application software for design and production of digital multimedia publication that can meet the requirements.</p>
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has basic knowledge in multimedia design.

1. Title	Master various design skills
2. Code	106319L4
3. Range	In a design department, establish and implement the management of different kinds of design by applying various design skills and taking into account the requirements.
4. Level	4
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Understand layout design skills.</p> <p>6.1.1. Master format, layout plan, columns, paragraphs and fonts configuration of publication.</p> <p>6.1.2. Master illustration and graphic skills, including the use of color, line, texture, proportion and perspective in drawing skills.</p> <p>6.1.3. Master the skills of design for book.</p> <p>6.1.4. Master functions in the format, materials, layout, printing and binding of books.</p> <p>6.1.5. Master readers' requirement on readability, specifications and resources limitations.</p> <p>6.1.6. Master cover design skills, including content expression, book binding and protection, and binding technology.</p> <p>6.1.7. Master e-book design skills.</p> <p>6.1.8. Master digital multimedia design skills, including the types and functions, properties, compatibility and limitation of digital storage media, and digital multimedia design skills for attractive designs to readers.</p> <p>6.1.9. Understand operation method of digital AV files on transmedia platform.</p> <p>6.2. Based on the above competency, use various design skills to establish and implement management of various design tasks so as to match with the requirements.</p> <p>6.3. Be able to assemble design staff, set target and daily work schedule for design, and execute management of design tasks based on the enterprise publishing plan and requirements.</p>
7. Assessment Criteria	<p>The integrated outcome requirement of this unit of competency:</p> <p>(i) Be able to use various design skills for establishing and implementing management of various design tasks that can meet the requirements.</p>
8. Remarks	The credit value of this unit of competency is based on the assumption that the learner has basic knowledge in book design.

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Publishing Industry
Functional Area of Production

Contents of Units of Competency

1. Title	Know basic processing flow for printing
2. Code	106320L3
3. Range	Select appropriate printing vendor, follow up on the progress and quality of print production, occasionally monitor the printing work of the vendor
4. Level	3
5. Credit	3 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Know the basic printing workflow.</p> <p>6.1.1. Know the applications, pros and cons of the four methods of printing: lithographic, intaglio, relief and porous.</p> <p>6.1.2. Know the production workflow of conventional printing.</p> <p>6.1.3. Know the production workflow of digital printing.</p> <p>6.1.4. Know popular types of papers for printing.</p> <p>6.1.5. Know methods for text and graphic input, editing and archiving.</p> <p>6.1.6. Know production and output for page layout.</p> <p>6.1.7. Know the procedures for order of printing, signing off of proof and production schedule, etc.</p> <p>6.1.8. Know the print production workflow of C1P4 file conversion and data sharing formats.</p> <p>6.2. Based on the above competency, be able to master the works of production order, signing off of production proof, and follow up on product quality.</p> <p>6.3. Be able to apply appropriate printing methods and features in production workflow for the specifications of publications, and assist in the monitoring of print production.</p>
7. Assessment Criteria	<p>The integrated outcome requirement of this unit of competency:</p> <p>(i) Be able to apply appropriate printing methods and features in production workflow for the specifications of publications, and assist in the monitoring of print production.</p>
8. Remarks	This unit of competency is suitable for publishing practitioners in general.

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Publishing Industry
Functional Area of Marketing

Contents of Units of Competency

1. Title	Understand sales and marketing skills
2. Code	106321L3
3. Range	Make use of professional sales and marketing skills to achieve a win-win deal for publications based on different needs of customers and perform related tasks in sales and customer services departments.
4. Level	3
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Understand basic principles of selling</p> <p>6.1.1. Understand sales flow</p> <p>6.1.2. Understand the psychology, behaviour and real needs of customers</p> <p>6.1.3. Understand the ever-changing market needs.</p> <p>6.1.4. Master “customer-oriented” sales skills.</p> <p>6.1.5. Understand requirements on sales personnel including personal grooming, attire, style of conversation and manners.</p> <p>6.1.6. Master methods to gain trust of customer.</p> <p>6.1.7. Be able to provide professional advice for customer’s consideration.</p> <p>6.1.8. Master effective negotiation skills to close deals.</p> <p>6.1.9. Master how to reach win-win situation in sales.</p> <p>6.1.10. Know the operation model of e-commerce.</p> <p>6.2. Based on the above competency, be able to use selling techniques in the sales of publication.</p> <p>6.3. Be able to use professional sales and marketing skills to match with different customers’ needs in order to achieve win-win deal.</p>
7. Assessment Criteria	The integrated outcome requirement of this unit of competency: (i) Be able to use sales and marketing to achieve win-win deals.
8. Remarks	This unit of competency is suitable for general publishing practitioners.

1. Title	Understand the distribution workflow
2. Code	106322L3
3. Range	In distribution department, assist in carrying out cost effective promotion, sales and distribution based on market condition of the place of publication and according to a given distribution plan .
4. Level	3
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Understand concept and process of distribution</p> <p>6.1.1. Understand relationship between distribution and other segments of publication.</p> <p>6.1.2. Understand the structure of publishing market, inter-relationships of elements and their effect on supply and demand.</p> <p>6.1.3. Understand source of information on publishing market development.</p> <p>6.1.4. Understand major distribution channels and mode of sales.</p> <p>6.1.5. Understand costs involved in different segments.</p> <p>6.1.6. Understand methods and effectiveness of publication promotion and marketing.</p> <p>6.1.7. Understand prevailing social condition and cultural trend.</p> <p>6.1.8. Understand distribution methods and flow of e-publishing.</p> <p>6.2. Based on the above competency, be able to execute publication promotion, sales and distribution and related tasks.</p> <p>6.3. Be able to assist in the implementation of cost effective promotion, sales and distribution and related tasks based on the distribution plan set by the enterprise, and according to local publication market situation.</p>
7. Assessment Criteria	<p>The integrated outcome requirement of this unit of competency:</p> <p>(i) Be able to assist in the implementation of of cost effective promotion, sales and distribution and related tasks, based on a given distribution plan and according to local publication market situation.</p>
8. Remarks	This unit of competency is suitable for general publishing practitioners.

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Publishing Industry

Functional Area of E-publishing

Contents of Units of Competency

1. Title	Understand target reader groups of e-publishing
2. Code	106323L4
3. Range	In an e-publishing company, as in print media, there is a need to understand the readers' age groups, genders, reading habits, consumption behaviour, etc. Compared to print publishing, e-publishing can better cater for the needs of the new generation, whose modes of entertainment and reading are not only physical but also virtual. In other words, e-publishing must better understand its reader groups and make quick responses to corresponding changes.
4. Level	4
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Understand e-publishing reader groups' behaviour and methods of stratification of reader groups.</p> <p>6.1.1. Understand e-publishing reader groups' behaviour on the Internet, their concerned topics, consumption behaviour, factors affecting their preferences, and interaction among different groups, etc.</p> <p>6.1.2. Understand that different e-publishing materials may have different market segmentation of reader groups, which are usually different from those of print publishing.</p> <p>6.1.3. Understand the possibilities of these e-publishing reader groups in crossing over with or return from virtual to paper based readership.</p> <p>6.2. Predict the acceptance levels of reader groups towards different kinds of e-publishing materials and plan how to use various e-publishing materials to fulfill or stimulate reader groups' reading needs and habit.</p> <p>6.3. Based on the changes in existing reader groups' demand, assist the company to implement prompt and appropriate changes in strategy.</p>
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Be able to understand the existence of different reader groups based on consumption behaviour.</p> <p>(ii) Be able to understand the acceptance levels of target reader groups towards different e-publishing materials.</p>
8. Remarks	

1. Title	Understand the industry chain of e-publishing
2. Code	106324L4
3. Range	In the context of working in an e-publishing company, through understanding the 4 dimensions of industry chain , namely value chain, enterprise chain, supply chain and space chain, holistically grasp the knowledge of development opportunities of e-publishing industry, and its commonalities with film, television, music and computer game industries.
4. Level	4
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Understand what industry chain is, and its relevant practical meaning for the e-publishing industry.</p> <p>6.2. Understand the commonalities with film, television, music and computer game industries, which also face the same macro environment in development.</p> <p>6.3. Based on the above competency, be able to holistically grasp the knowledge of development opportunities of the e-publishing industry, and the inter-relationship with print publishing, and other media and entertainment industries.</p>
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Be able to articulate the inter-dependency in a new relationship between the e-publishing industry and other related industries.</p> <p>(ii) Be able to understand the industry chain of e-publishing industry while learning possible development possibilities of print publishing.</p>
8. Remarks	

1. Title	Understand production methodologies of different e-publishing materials
2. Code	106325L4
3. Range	Understand the production flow and methodologies of publishing contents from different sources and published through different channels in the context of an e-publishing company. Since different methodologies involve different types of tools, talents and time, one can understand the challenges ahead based on the knowledge of the methodologies.
4. Level	4
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Understand how different sources of contents will determine the publishing flow necessary to meet the requirements of different publishing channels.</p> <p>6.2. Understand the methodologies used in different flows, and the tools, talents and time involved.</p> <p>6.3. Riding on the above competencies, know the challenges ahead of actual production of e-publishing materials.</p>
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Be able to understand the necessary flow and methodology in connection with the e-publishing contents and channels.</p> <p>(ii) Be able to know the challenges in the actual production of e-publishing materials.</p>
8. Remarks	

1. Title	Understand new technology and concept affecting e-publishing development
2. Code	106326L4
3. Range	In an e-publishing company, continuously maintain awareness on the new technology and concept that affect e-publishing development, be able to relate them with the stage of the company development in e-publishing, and to consider how to maintain the competitiveness of the company in midst of a rapidly changing environment.
4. Level	4
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Through schematic frameworks such as the five senses of human, man-machine interface, semantic changes, media conversion interface, e-publishing reading scenario, etc, understand the roadmap of previous e-publishing development in technology and conceptual aspects, and then understand the possibilities of future changes in e-publishing technology and concept through channels such as various magazines, exhibitions, seminars and tracing studios, etc..</p> <p>6.2. Be able to consider the latest development in e-publishing technology and concept in the implementation process.</p> <p>6.3. Based on the above competencies, be able to relate company's stage of development in e-publishing with consideration on how to maintain the company's competitiveness in the rapidly changing e-publishing environment.</p>
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Be able to describe the development roadmap of e-publishing based on some schematic frameworks, and extract various information from new technology and concept for understanding the possibilities of future changes in e-publishing.</p> <p>(ii) Be able to relate company's e-publishing development stage with consideration on how to upkeep company's market advantage in the rapid changing e-publishing environment.</p>
8. Remarks	

1. Title	Master integrated concept of e-publishing
2. Code	106327L5
3. Range	Publishing industry is facing pressure from displacement of print publishing by e-publishing in various frontiers of production flow, medium and distribution. In the selection process of the best coping plan for a publishing company, or before a company invest resources into e-publishing, it is necessary to have an overall integrated concept on e-publishing: including e-publishing market outlook, technological development, cost structure, business model, conversion plan, and business case analysis, etc.
4. Level	5
5. Credit	3 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Understand concept of e-publishing</p> <p>6.1.1. Understand the latest e-publishing market outlook, especially the dynamic relationship between e-publishing and traditional print publishing markets; be able to estimate trends of market demand in the medium term.</p> <p>6.1.2. Understand the process of technology development in e-publishing, understand the various stages in the development process, the threat of new technology on existing technology, and to estimate resources to be invested in technology.</p> <p>6.1.3. Understand the major cost centres of e-publishing, comprehend the cost structures of operational structures in large, medium and small scales. Understand the possibilities of diversifying expenditure on costs.</p> <p>6.1.4. Understand business models of e-publishing. Understand the interactive nature of e-commerce platforms, and their product life cycles.</p> <p>6.1.5. Understand the compatibility and conflicts during the addition of e-publishing business into traditional print publishing business.</p> <p>6.2. Analyze the factors to be considered for a company to implement e-publishing operation internally</p> <p>6.2.1. Adequate consideration for conversion plan on staffing provision, and changes in publishing flow, and distribution channels for e-publishing business.</p> <p>6.2.2. Analyze typical successful and failing business cases happened in overseas and Hong Kong. Understand those critical success factors of e-publishing and avoid repeating some unsuccessful experience.</p> <p>6.3 Based on the above competencies, be able to effectively develop and operate e-publishing process.</p>
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Be able to understand the inter-relationship between e-publishing and traditional print publishing, based on the background of development;</p> <p>(ii) Be able to gauge an overall understanding of the general risks and potential of starting e-publishing business.</p>
8. Remarks	

1. Title	Understand the relationship between copyright ordinance and e-publishing
2. Code	106328L5
3. Range	Copyright ordinance sets the most important ground rules between companies, and between companies and readers in publishing. The ground rules for traditional print publishing cannot be applied squarely in e-publishing. An understanding of the differences between the rules and their future impact on copyright ordinance can facilitate the development of e-publishing business.
4. Level	5
5. Credit	3 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Understand copyright ordinance for e-publishing</p> <p>6.1.1. Understand the establishment and development of international copyright conventions, including “Berne Convention for the Protection of Literary and Artistic Works”, “Universal Copyright Convention”, and “WIPO Copyright Treaty”, the common consents attained internationally and the general implementation of these conventions by major countries/ regions.</p> <p>6.1.2. Understand the practical execution of copyright ordinance in traditional print publishing and e-publishing, and varied treatments in between the two.</p> <p>6.1.3. Understand new issues on copyright ordinance triggered by the development of e-publishing, including the smaller units, tracking, hyperlink, reading format, time limit, and licensor/ licensee’s mutual agreements and responsibilities, etc.</p> <p>6.2. Analyze how to solve the additional issues brought by e-publishing on copyright ordinance.</p> <p>6.3. Based on above competencies, be able to assist in the development of e-publishing business.</p>
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Based on the implementation experience of traditional print publishing copyright issues, be able to know the complexity of implementing copyright ordinance for e-publishing.</p> <p>(ii) Be able to understand the unsolved issues of copyright ordinance.</p>
8. Remarks	

1. Title	Understand the analytics of digital marketing
2. Code	106329L5
3. Range	In digital marketing, the effectiveness of using a landing webpage for enhancing overall marketing impact can be quantified through analytics. Analytics mainly analyze three aspects of effectiveness, including brand building, marketing effectiveness and sales generation. Analytics data can be compared with the targets in marketing strategy. There is a need to understand the pros and cons of using different off-the-shelf analytics tools or professional services for monitoring and analyzing the analytics.
4. Level	5
5. Credit	3 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Understand that the landing webpage of digital marketing can achieve three aspects of effectiveness:</p> <p>6.1.1. The three aspects are brand building, marketing effectiveness and sales generation.</p> <p>6.1.2. Understand that for the aspect of brand building, the focus is on collecting the number of fans, and market share of webpage among competitors.</p> <p>6.1.3. Understand that for the aspect of marketing effectiveness, the main focus is on collecting the objectives of users for browsing the webpage, and if the webpage can fulfill the objectives, and the index is about reducing bounce rate.</p> <p>6.1.4. Understand that in the aspect of sales generation, the focus is on collecting indices such as cost per click, conversion factor, and average sales per transaction, etc.</p> <p>6.2. Understand how to choose among off-the-shelf analytic tools and professional services for monitoring and analyzing marketing analytics.</p> <p>6.3. Based on the above competencies, be able to use appropriate marketing analytics for improving the effectiveness of marketing strategies.</p>
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Be able to get important analytics data quantifiable from web traffic information.</p> <p>(ii) Be able to understand the outcomes of analytics in helping brand building, marketing effectiveness, and sales generation.</p>
8. Remarks	

1. Title	Establish e-book marketing plan
2. Code	106330L5
3. Range	Based on the author, contents and target reader groups, establish the marketing plan for an e-book, including the pricing strategy, sales channel and launch schedule, etc. The promotion of an e-book is in many ways closely linked to the author, and is best done from the beginning when the author decided to publish an e-book. A special feature of e-book promotion is the need of author initiation. The promotion should allow potential reader groups to preview part of the contents and seek relevant “Key Opinion Leaders” to provide post reading reviews and sharing.
4. Level	5
5. Credit	3 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Master the special selling point of an e-book in the market, the track record of author and the consumption behaviour of reader groups.</p> <p>6.2. Establish the major components of the marketing plan of e-book, including market positioning, pricing strategy, sales channel and promotion.</p> <p>6.2.1 Engage the writer in marketing promotion, including start the promotion as early as possible, share part of the contents to the potential readers to capture their attention and find influential person writing the e-book review.</p> <p>6.3. Based on the above competencies, establish complete marketing plan for e-book.</p>
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Be able to understand the 4 “P”s of e-book marketing.</p> <p>(ii) Be able to establish marketing plan for a specific e-book.</p>
8. Remarks	

1. Title	Establish financial budget for e-publishing
2. Code	106331L5
3. Range	In the financial department of an e-publishing company, establish financial budget of the business model of e-publishing, break down for different e-publishing materials the cost and pricing in editing, production, promotion, registration, distribution and other services, etc. Understand the rules and criteria of charges and sales sharing of different sales platforms. Establish sales report system, and the procedure and sales sharing with authors and other outsource creative teams. Estimate income, expenses and other items for the financial year.
4. Level	5
5. Credit	3 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Master the costing and pricing for different e-publishing materials in editing, production, promotion, registration, distribution and other services. Understand the rules and criteria of charges and sales sharing of different sales platforms.</p> <p>6.2. Establish sales report system, and the procedure and sales sharing with authors and other outsource creative teams.</p> <p>6.3. Based on the above competencies, estimate the incomes, expenses, and other items for the financial year.</p>
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Be able to establish costing and pricing criteria for different work items.</p> <p>(ii) Be able to master the details of overall financial budget, and to establish an entire system of budgeting and accounts.</p>
8. Remarks	

1. Title	Understand the customer data security for e-publishing
2. Code	106332L5
3. Range	In e-publishing company, understand that the data collected for customers' reading habit and interests, customers' purchase records of e-publishing materials, and reader club membership information or social media group's registration resources should all be reasonably, legally, and morally used. Periodically collect positive confirmation from customers for the continual use of data collected, and seek consent from customers before any change of purpose in usage. Understand the password, authorization and encryption security measures in the archive and retrieval of customer data, and the defence over hackers and virus attack, and backup copy.
4. Level	5
5. Credit	3 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Understand the expectation and requirements of society, government and customers over protection of data security by an e-publishing company.</p> <p>6.1.1. Understand the appropriate information technology deployed by e-publishing company to guarantee the security of customer data.</p> <p>6.2. Understand how to use customer data in a reasonable, legal and moral manner. On the ground to use customer data for improving the quality and frequency of interaction between e-publishing company and customers, respect the data privacy rights of customers.</p> <p>6.3. Based on the above competencies, be able to understand customer data security is under protection, including the password, authorization and encryption security measures in the archive and retrieval of customer data, and the defence over hackers and virus attack, and back up copy.</p>
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Be able to understand the importance of protecting customer data security from different angles.</p> <p>(ii) Be able to promulgate positive messages within e-publishing company on the reasonable, legal and moral use of customer data.</p>
8. Remarks	

1. Title	Master e-book formats
2. Code	106333L5
3. Range	In the context of an e-publishing company, know the evolution of e-book formats from the past and into the future. In the first place, e-book formats established have originated from different sources. Examples are printing quality requirement, the need to scanning physical books for archive, requirements to suit computer operating systems (OS), compatibility with OS of mobile devices, common file formats, collaborative promotion by publishing companies, the need to match e-book readers, or compatibility with displays on internet, etc. Among the many formats developed, a lot of them will become obsolete, and eventually a few formats will dominate the market. Knowing the future trend can help reduce the risk of investing resources in the wrong areas.
4. Level	5
5. Credit	3 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Know existing formats of e-book.</p> <p>6.1.1. Know the sources of development of different e-book formats in the past and know which of those formats are facing the fate of obsolescence.</p> <p>6.1.2. Know the features, pros and cons, supported readers and platforms of different e-book formats, the editing flow, openness and distribution channels of using these e-book formats, and the future development trends.</p> <p>6.1.3. Know the major e-book formats, such as Universal PDF by codeMantra, Kindle Format 8 by Amazon, and ePUB by IDPF, etc.</p> <p>6.1.4. Know that App can be an alternative choice of e-book format, and its functionalities in different readers.</p> <p>6.2. Based on the above competencies, be able to make decision on the choice of appropriate e-book format.</p> <p>6.3. Know the future trends of e-book format in order to help reduce the risk of mismatch in resources investment.</p>
7. Assessment Criteria	The integrated outcome requirements of this unit of competency are: (i) Be able to explain the past and future development of e-book. (ii) Be able to identify major e-book formats.
8. Remarks	

1. Title	Understand terms of co-operation of e-bookshop
2. Code	106334L5
3. Range	In the context of consignment of e-books in an e-bookshop for sale, an understanding of the geographic coverage of the supporting mobile platforms comes first, followed by an understanding of the e-bookshops' requirements on e-book format, file size, digital rights, cover design, metadata and ISBN, etc. Understand e-bookshop's terms of charges in the whole sales value chain including pricing, exclusivity, geographic region, sales sharing, shelving, fulfillment, value-added taxes, other levies and other charges, etc., as well as the criteria for promotion of e-book and search result sequencing. Understand the major e-bookshops' business situation in Hong Kong, Macau, Mainland and Taiwan. For sizeable e-bookshops overseas, understand their competitive advantage and adaptability in the above markets.
4. Level	5
5. Credit	3 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Understand e-bookshops' consignment arrangement and terms.</p> <p>6.1.1. Understand the geographic coverage of the supporting mobile platforms, and the e-bookshops' requested e-book format, file size, digital rights, cover design, metadata and ISBN, etc.</p> <p>6.1.2. Understand e-bookshops' terms of charges including pricing, exclusivity, geographic region, sales sharing, shelving, fulfillment, value added taxes, other levies and other charges, etc., as well as the criteria for promotion of e-book and search result sequencing.</p> <p>6.1.3. Understand the major e-bookshops' business development in Hong Kong, Macau, Mainland and Taiwan. For sizeable e-bookshops overseas, understand their competitive advantage and adaptability in the above markets.</p> <p>6.2. Based on the above competencies, understand the opportunities for working with different e-bookshops.</p>
7. Assessment Criteria	The integrated outcome requirements of this unit of competency are: (i) Be able to explain the operation terms of different e-bookshops. (ii) Be able to provide advice on the decision of choosing an e-bookshop as business partner.
8. Remarks	

1. Title	Master the function of Mark-up Language (ML) in e-book
2. Code	106335L5
3. Range	In e-book production department, master the needs of using Mark-up Languages in e-book, master the past and future development of Mark-up Language technology, among which the function in different application scenarios of XML, MathML, XHTML, HTML5 (or its latest versions). Master the ability to programme Mark-up Languages, and the setting and assembling of the various functions for different contents components of e-book.
4. Level	5
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Master the needs of using Mark-up Languages in e-book, master the past and future development of Mark-up Language technology, among which the function in different application scenarios of XML, MathML, XHTML, HTML5 (or its latest versions).</p> <p>6.2. Master the ability to programme Mark-up Languages, and the setting and assembling of the various functions for different contents components of e-book.</p> <p>6.3. Based on the above competencies, master the choice of Mark-up Languages, assembling and programming the Mark-up Languages for different contents components of e-book.</p>
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Be able to master the needs of using Mark-up Languages in e-book.</p> <p>(ii) Be able to master how to choose and programme Mark-up Languages.</p>
8. Remarks	

1. Title	Master the function of Cascading Style Sheets (CSS) in e-book
2. Code	106336L5
3. Range	In e-book production department, master the needs of using Cascading Style Sheets in e-book, especially in the situation of using Mark-up Language at the same time. Master the past and future of the development of Cascading Style Sheets technology, including CSS1, CSS2, CSS3 (or its latest versions) new functions in version upgrading, such as supporting flow of text vertically from top to bottom, horizontally from right to left. Master the ability to programme Cascading Style Sheets, and the setting and assembling of the various functions for different contents components of e-book, including considering the three declarations' cascading relationship of author, user and user-agent.
4. Level	5
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Master the needs of using Cascading Style Sheets in e-book, especially in the situation of using Mark-up Language at the same time. Master the past and future of the development of Cascading Style Sheets technology, including CSS1, CSS2, CSS3 (or its latest versions) new functions in version upgrading, such as supporting flow of text vertically from top to bottom, horizontally from right to left.</p> <p>6.2. Master programming of Cascading Style Sheets, and the setting and assembling of the various functions for different contents components of e-book, including considering the three declarations' cascading relationship of author, user and user-agent.</p> <p>6.3. Based on the above competencies, master setting, assembling and programming the Cascading Style Sheets of the various functions for different contents components of e-book.</p>
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Be able to master using Cascading Style Sheets in e-book.</p> <p>(ii) Be able to master how to set and programme Cascading Style Sheets.</p>
8. Remarks	

1. Title	Understand display characteristics of e-book readers
2. Code	106337L5
3. Range	In editing and visual design process, understand display characteristics of various e-book readers in the market, including the sizes, aspect ratio, resolution, color management, support color gamut, etc. Understand factory settings of readers, such as standard font size and matrix, language, dictionary and page location, etc., and the settings that can be changed by e-book and user, and the support for video and audio formats, etc.
4. Level	5
5. Credit	3 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Understand display characteristics of various e-book readers in the market.</p> <p>6.1.1. Understand e-book readers' sizes, aspect ratio, resolution, color management, support color gamut and contrast, etc.</p> <p>6.1.2. Understand factory setting of readers, such as standard font size, matrix, language, dictionary and page location, etc., and the settings that can be changed by e-book and user, and the support for video and audio formats, etc.</p> <p>6.2. Based on the above competencies, understand the consideration factors for choosing e-book reader and editing e-book's associated display.</p> <p>6.3. Understand how to match the use of different e-book readers with the contents and style of different e-books.</p>
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Be able to understand the pros and cons in the display aspect of e-book readers.</p> <p>(ii) Be able to understand the consideration factors of choosing reader and editing e-book.</p>
8. Remarks	

1. Title	Master e-book production software
2. Code	106338L5
3. Range	In e-book production department, master the use of e-book production software corresponding to the chosen e-book reader, for example iBook Author for Apple iOS, Kindle Direct Publishing for Amazon Kindle, Radium SDK for IDPF ePUB3, RMSDK for Adobe Digital Edition, etc. Master the minimum requirements of text file formats and versions by e-book production software, and hardware requirements for production. Based on the instructions of editorial department and design department, be able to produce an e-Book that is compatible with standard specifications.
4. Level	5
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Master the use of e-book production software corresponding to the chosen e-book reader, for example iBooks Author for Apple iOS, Kindle Direct Publishing for Amazon Kindle, Radium SDK for IDPF ePUB3, RMSDK for Adobe Digital Edition, etc.</p> <p>6.2. Master the minimum requirements of text file formats and versions by e-book production software, hardware requirements for production.</p> <p>6.3. Based on the above competencies, be able to produce e-book based on the instructions of editorial department and design department and compatible with standard specifications.</p>
7. Assessment Criteria	The integrated outcome requirements of this unit of competency is: (i) Be able to use e-book production software to produce e-book.
8. Remarks	

1. Title	Master content conversion of e-publishing materials
2. Code	106339L5
3. Range	In e-publishing materials production department, master the conversion of contents from original format of print-based book, text file or pdf file to e-publishing materials' target file format. Print-based books must be scanned with sufficient resolution to some image files similar to TIFF, and then gone through OCR character recognition tools before conversion to text file. Master the pre-conversion process of the clearing and changing of page control instructions and user interface before conversion of text file formats such as MS Word and PDF to e-publishing materials' file format. Master how to convert from traditional publishing software file format such as InDesign format to e-publishing materials' file format.
4. Level	6
5. Credit	3 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Understand the differences in file format requirements between original print-based book, text file formats or pdf file and that of e-publishing materials' file format.</p> <p>6.2. Understand the guidelines of format conversion from print-based book, text file format, or pdf file contents to e-publishing materials' target file format.</p> <p>6.3. Master how to convert from traditional publishing software format, such as InDesign format to e-publishing materials' file format.</p> <p>6.3.1. Master print-based book must be scanned with sufficiently high resolution, for example to some image file like TIFF, and then gone through OCR character recognition tools before conversion to text file.</p> <p>6.3.2. Master the pre-conversion process of clearing and changing of page control instructions and user interface before conversion of text file formats such as MS Word and PDF to e-publishing materials' file format.</p>
7. Assessment Criteria	The integrated outcome requirements of this unit of competency are: (i) Be able to master scanning print-based book and then converting to text file format. (ii) Be able to master converting text file format to e-publishing materials' file format.
8. Remarks	

1. Title	Establish development strategy for e-publishing
2. Code	106340L6
3. Range	When a traditional print-based publishing company considers expanding its business scope and entering e-publishing, the company must draw a detailed plan, review the company's internal capabilities and external competition, and establish an e-publishing development strategy that matches the company's needs.
4. Level	6
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Understand the company's current status.</p> <p>6.1.1. List the company's human resources sufficiency for business expansion to cover e-publishing, and estimate the extent of human resources mismatch.</p> <p>6.1.2. Understand the reader groups of the company and identify, in the expansion to add e-publishing materials, which will be new reader groups and which will be replacement reader groups, in order to fully reflect the quantity and quality changes of readers before and after the expansion.</p> <p>6.2. Plan for entering into e-publishing.</p> <p>6.2.1. Outline an organizational structure to match with the addition of e-publishing business,. Establish plans for staff recruitment, re-deployment and training.</p> <p>6.2.2. Review the retention value of traditional print-based publishing and the possible synergy of its co-existence with e-publishing.</p> <p>6.2.3. Establish the company's market positioning and branding in the internet world, estimate the size of the market and the company's share of market. List the business status of competitors with similar market positioning.</p> <p>6.2.4. Forecast the marketing growth path of e-publishing business, and coordinate the proportion and development between e-publishing and traditional print-based publishing inside the company.</p> <p>6.3. Based on the above competencies, establish an e-publishing development strategy that caters for the company's needs.</p>
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Be able to clearly define the company's core competence amidst an rapidly changing e-publishing market environment.</p> <p>(ii) Be able to establish a forward development strategy which integrates the company's internal capabilities.</p>
8. Remarks	

1. Title	Understand business models of e-publishing
2. Code	106341L6
3. Range	Business model of e-publishing is still in a state with rapid changes, and the sources of the changes are technology-led new human-machine interfaces and the reader groups' interactive participation. An e-publishing's business model has to evolve with these changes. In the face of ever-changing business models, understanding the supporting factors of the different business models will help outline a pathway amidst the changes.
4. Level	6
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Master the rapidly changing situation of e-publishing's business model.</p> <p>6.1.1. Master the similarities and variations of the business models between e-publishing and traditional print publishing.</p> <p>6.1.2. Master the group behaviours of reader groups of e-bookshop, and the consequential characteristics of business model adapted to these group behaviours.</p> <p>6.1.3. Understand how self-publishing liberates the leading roles of publishers and editors in commissioning and planning of books, and instead a standard approach is used.</p> <p>6.1.4. Understand the new reading time spans defined by e-publishing readers, such as lengthened report of news and ultra-short novels.</p> <p>6.1.5. Understand the power and resources of the proactive participation of e-publishing readers in the publishing process, such as the new business models of allowing readers to vote on the storyline development and crowd-funded publishing, etc.</p> <p>6.1.6. Understand the multi-dimensional media consumption of the e-publishing readers from text reading to watching short video, movie, video episode, animation, listening to music, participating in game and social media.</p> <p>6.2. Analyze the factors for determining any other rooms for changes, and the new business model of transmedia storytelling that is orchestrated across various media in a campaign over a long period of time.</p> <p>6.3 Based on the above competencies, understand the various change factors that caused the formation of different e-publishing business models. In face of ever-changing business models, be able to find a path amidst the changes.</p>
7. Assessment Criteria	The integrated outcome requirements of this unit of competency are: (i) Be able to describe the different business models of e-publishing. (ii) Be able to approximately trace the path of changes of these business models.
8. Remarks	

1. Title	Master digital rights management of e-publishing
2. Code	106342L6
3. Range	Digital rights management is already a compulsory component of e-publishing. Mastering an effective management model can bring upon better reader behaviours, so as to secure a publishing company's maximum economic returns and protect publishing resources.
4. Level	6
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Master the different concepts of digital rights management in e-publishing.</p> <p>6.1.1. Master the variations of rights management between e-book and print-based book. For example, the different concepts in borrowing and renting, especially in the setting of readers' rights through digital rights management, can directly affect consumers' psychology and their sense of ownership.</p> <p>6.1.2. Master the technological contents and rights protection in the digital rights management modules that comes with offerings by major suppliers in the market, such as ACS of Adobe, iOS of Apple, KF8 of Amazon, and Nook of Barnes & Noble, etc.</p> <p>6.1.3. Master the formats of other digital rights management, such as social digital rights management social DRM, creative commons and Remakes, etc.</p> <p>6.2. Based on the above competencies, implement digital rights management.</p> <p>6.3. Through effective digital rights management, protect publishing company's top economic returns and publishing resources, and bring upon better readers' behaviours.</p>
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Be able to get a fit for purpose solution from the many available digital rights management formats.</p> <p>(ii) Be able to consider the production effectiveness and protection of digital rights of publishing company in cross-platform publishing scenario.</p>
8. Remarks	

1. Title	Master digital content management of e-publishing
2. Code	106343L6
3. Range	In the working environment of e-publishing, many types of digital contents have to pass through different life cycles. To allow personnel in different functions to retrieve the appropriate digital contents, a quality and consistent digital content management must be in place.
4. Level	6
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Understand the basic concepts of digital contents of e-publishing.</p> <p>6.1.1. Understand different types and basic features of digital contents, such as text file, font library, audio-visual, multi-media, etc.</p> <p>6.1.2. Understand the life cycle of digital contents, from creation, submission, revision, publishing, archive, retrieval to deletion, and the precaution measures in management of each stage, and the protection of digital contents security.</p> <p>6.2. Master resources management that matches company's digital contents of e-publishing.</p> <p>6.2.2. Master the optimization of company's digital content resources, and the effectiveness of Create Once, Publish Everywhere (COPE).</p> <p>6.2.3. Master the ability to build a management system, outline the categories of contents managed, the technology required, rules and regulation of publishing operation, and access rights for user groups. In certain situations, the system may involve multi-system co-publishing and cross-referencing and checking of contents .</p> <p>6.3. Based on the above competencies, implement control in the security and integrity for systemic digital content management, as well as in version control.</p>
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Be able to master the needs of digital content management of e-publishing company.</p> <p>(ii) Be able to integrate the management of digital contents of e-publishing company.</p>
8. Remarks	

1. Title	Implement visual and user interface design of e-book
2. Code	106344L6
3. Range	In e-publishing design department, design the visual layout and user interface of e-book based on the e-book readers used by the target reader groups. Design shall balance as far as possible the aesthetic display of contents, the interrelationship of layout from one page to another. For the sake of allowing more people to access digital contents, the design should consider the inclusivity for people with reading challenges.
4. Level	6
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Understand the page characteristics of e-book.</p> <p>6.1.1. Understand the variation in design between e-book and print-based book, for example spread page, pullover pages, font, reverse, image, column, and paragraphing, etc.</p> <p>6.1.2. Understand user's preferences and habits in using e-book reader.</p> <p>6.2. Be able to choose appropriate elements in e-book design and production.</p> <p>6.2.1. Choose appropriate fonts which must be supported by the target e-book reader, and achieve good legibility during enlargement and reduction of font size. In specifying font sizes, the tendency is to use either em or percentage of standard font size of the e-book reader.</p> <p>6.2.2. Consider the appropriate image format, mainly choose among jpg, png and svg and also consider image's file size, visibility of image during reading, especially when texts are embedded in image.</p> <p>6.2.3. In the situation when an e-book needs to be read in different e-book readers, implement a design procedure for universal compatibility. Utilize the templates of different e-book readers to simulate page layout design so as to come up with the best design scheme. Also, refer to and apply "responsive design" or other adaptive design methodologies which can adapt to different e-book readers.</p> <p>6.2.4. Design accessible user interface, utilize e-book's various digital tools, such as text magnifier, audible text, and audio instructions in order to provide more convenience for accessibility.</p> <p>6.3. As e-book gains popularity among readers and the technology further matures, more variety in visual and user interface design for e-book can be implemented.</p>
7. Assessment Criteria	The integrated outcome requirements of this unit of competency are: (i) Be able to consider the design changes for different e-book readers. (ii) Be able to optimize accessibility of e-book
8. Remarks	

1. Title	Implement structure design of e-book
2. Code	106345L6
3. Range	In the process of conceptualization of one or a series of e-books, implement a structure design based on the standard specifications of the e-book reader to be used so that all digital resources of the e-book can be saved in relevant files. Finally, design one or many digital folders to save the various content components of e-book, and package all components properly into a completed container for testing and placing into e-reader for playback.
4. Level	6
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Know the standard specifications of different e-book readers</p> <p>6.1.1. Know that the different e-books readers' standard specifications impose different requirements and allowances in flexibility on the structure of e-book, and that the complexity of structure can have implications on the required input of publishing resources.</p> <p>6.1.2. Understand that inside the e-book structure, there are different files storing the digital contents of e-book, and a main file storing e-book's core materials. The content materials can be distributed in fixed layouts or dynamically swapped in and out of the layouts when they are read. The files may contain multimedia contents such as sound or video, etc, on top of text and image.</p> <p>6.1.3. Understand that the design for visuals and user interface can be placed in functional files, such as embedded fonts, style sheets and programmes for controlling video, audio playback and font size manipulation.</p> <p>6.1.4. Understand the metadata of the different digital contents' components in the structure of e-book. The metadata can record creative units such as authors, editors, publishers, designers, photographers, composers, lyric writers, directors, artists, etc., as well as book titles, ISBNs, dates, countries, reader groups, editors, regional copyrights, languages and category tags, etc.</p> <p>6.1.5. Understand that the basis of reading sequence of e-book shall generate a file base arrangement for the sequence of different digital contents components to be read. Other auxiliary files may include table of content pointing to covers, prefaces of edition, foreword, contents, sections, index, glossaries, list of photos, list of charts, and reading guide which highlights contents of e-book, etc.</p> <p>6.1.6. Understand the use of container as a selling unit of e-book that allows the transmission and downloading to appropriate e-book readers of the buyers.</p> <p>6.2. Based on the above competencies, implement the design of various components in the container packaged for an e-book.</p> <p>6.3. Design one or many digital folders to save the various content components of e-book, and package properly all components into a completed container for testing and placing into e-reader for playback.</p>

7. Assessment Criteria	The integrated outcome requirements of this unit of competency are: (i) Be able to explain the different cooperative relationships of various files and folders in the structure of e-book. (ii) Be able to implement the structure design of e-book that can meet the requirement of playback in e-book reader and for searching in online e-book bookstore.
8. Remarks	

1. Title	Innovate products and services for digital market
2. Code	106346L6
3. Range	E-publishing, as a constituent of global digital market, has been given new opportunities and positioning as a product or service. “Publishing as a product” is an obvious migration from print-based book as a product to e-book as a “new” product. “Publishing as a service” can however be developed from scattered and segmented and niche publishing services in the past to many new service possibilities that are yet to be fully explored. Regardless of the nature of e-publishing as a product or service, innovation is the key to future development.
4. Level	6
5. Credit	3 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Understand the importance of innovative products and service development in the digital market.</p> <p>6.1.1. Understand the intertwined relationships of products and services in the global digital market, as well as their interactive relationship in sales promotion.</p> <p>6.2. Be able to develop new user consumption modes and new e-publishing services for products in digital market.</p> <p>6.2.1. Implement new user consumption modes in products, such as sample reading services in order to stimulate readers’ interests; collect the background information of reader groups; develop relationships with readers; and allow readers to participate in the product innovation process.</p> <p>6.2.2. Explore feasibilities for innovative e-publishing services. Through examining on how other products have been using “contents as a service”, “software as a service”, “platform as a service”, and “hardware as a service” to serve the needs of users in modern lifestyle, innovate “e-publishing as a service” to become a new service to readers.</p> <p>6.3. Based on the above competencies, be able to initiate innovative products and services in digital market for e-publishing, and to enrich and redefine the scope of e-publishing market.</p>
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Be able to identify the special features of e-publishing as digital products and services.</p> <p>(ii) Be able to identify the innovative directions for e-publishing.</p>
8. Remarks	

1. Title	Formulate promotion strategies for digital market
2. Code	106347L6
3. Range	As a part of the digital market, the promotion strategies of e-publishing have to be more relevant to digital market. Through analysis of the opportunities and threats in digital market, appropriate promotional strategies are established. An e-publishing company needs to understand its own reader groups, such as their online behaviours, most talked and shared topics, consumption attitude, like/dislike principle, and group interaction/dynamic, etc. An understanding of reader groups is the foundation for formulating promotion strategies for digital market.
4. Level	6
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Understand methods of promotion in digital market</p> <p>6.1.1. Understand and learn from the promotion methods of other successful new products and services in the digital market, and select among them the most appropriate promotion methods for e-publishing.</p> <p>6.1.2. Understand how to locate target reader groups interested in individual categories of e-publishing products and services on the internet. Understand the reader groups, such as their online behaviours, topics they talked and shared most, consumption attitude, criteria for like/dislike and group interaction, etc, and estimate their acceptance level towards different kinds of digital market promotion methods.</p> <p>6.2. Formulate promotion strategies for e-publishing.</p> <p>6.2.1. Analyze how to convert reader groups on the internet from simple exposure to e-publishing products and services into motivation of buying them.</p> <p>6.2.2. Formulate promotion strategies for digital market of e-publishing, including the use of social media marketing, banner advertisement, search engine marketing and similar methods; develop a leading portal of e-publishing which may cover e-book stores; base on the special characteristics of e-publishing, approach targeted readers groups through words with semantic relationships in addition to keyword tags.</p> <p>6.2.3. Understand the long-term benefits of observing moral principles on internet, maintaining a sincere identity, and the risk of being abandoned by reader groups.</p> <p>6.3. Supplemented the execution of promotion strategy for digital market, with some effective sales activities for printed books, and adjust the strategy during execution.</p>
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Be able to describe the characteristics of reader groups, and the best media and approach to reach them.</p> <p>(ii) Be able to demonstrate the ability to establish promotion strategy for digital market.</p>
8. Remarks	

1. Title	Execute workflow management of e-publishing
2. Code	106348L6
3. Range	In an e-publishing company's organizational structure, recruit appropriate talents based on the needs of creativity and production, , and deploy them in departments with clearly defined responsibilities, authorities and interlinked scopes of work, and set up a central coordination mechanism for these departments. As a learning organization, continuously improve the workflow management of e-publishing inside the company.
4. Level	6
5. Credit	3 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Master the requirements for a wide spectrum of talents in the creativity and production process of e-publishing, such as visual designers and programmers experienced in Web 2.0, HTML 5.0 and CSS 3.0, experienced sales personnel in digital marketing, and experienced editors and production personnel in multi-media publishing, etc.</p> <p>6.2. Understand how to divide and define job roles in an organization to suit the creativity and production process of e-publishing workflow, to accumulate experience and continuously work on perfecting its workflow management.</p> <p>6.3. Based on the above competencies, continuously improve the workflow management of e-publishing inside the company.</p>
7. Assessment	The integrated outcome requirements of this unit of competency are: (i) Be able to recruit a wide spectrum of appropriate talents to meet the requirements of creativity and production of e-publishing. (ii) Be able to continuously improve workflow management.
8. Remarks	

1. Title	Master editorial management of e-publishing
2. Code	106349L6
3. Range	In an e-publishing company, coordinate and deploy the actual operation of e-publishing process, and master editorial management of e-publishing. Understand thoroughly the trends and current status of e-publishing products and services in the market in the aspects of contents, characteristics, styles, pricings and formats, etc., as well as the various developments of different kinds of publishing materials such as arts, books for kids, novels, travel guides, textbooks, books in social sciences and science, etc, and apply the knowledge in daily editorial management work.
4. Level	6
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Understand thoroughly the trends and current status of e-publishing products and services in the market in the aspects of contents, characteristics, styles, pricings, and formats, etc so as to form the basis of managing daily editorial work.</p> <p>6.1.1. Master the new requirements for editorial management due to e-publishing, such as editing the structure, links, menus, interactive elements and downloading speed, etc. of e-publishing materials.</p> <p>6.1.2. Understand the editing platform and workflow provided by or compatible with the e-reading platform of the e-publishing materials.</p> <p>6.1.3. Master any embedded features of e-publishing materials, such as multi-media contents, functions to enhance accessibility of reading, and indexing functions for databases, paragraphs, micro blogs, and Wikipedia, etc.</p> <p>6.1.4. Master the possible roles of e-publishing materials in social media, and enable small flow of e-publishing materials to be read in social media.</p> <p>6.2. Master editorial management of e-publishing so as to improve the convenience and popularity of reading e-publishing materials.</p> <p>6.3. Coordinate and deploy the actual operation of e-publishing process, and be able to make use of various developments of e-publishing in order to integrate into daily editorial management work.</p>
7. Assessment Criteria	The integrated outcome requirements of this unit of competency are: (i) Be able to master the trends and current status of technical and services requirements of e-publishing market. (ii) Be able to coordinate and deploy the actual operation of e-publishing process.
8. Remarks	

1. Title	Master metadata and bibliography of e-book
2. Code	106350L6
3. Range	In the creativity and editing process, know the importance of metadata and bibliography for an e-book to be found in the internet. Know the many different metadata associated with various content components of e-book, such as photograph, layout, text, table, image, video, and animation, etc, which can assist to strengthen the linkage among creator, author and reader groups. Know the development of different bibliographical formats, such as Dublin Core, MARC21, ONIX, XMP, BISAC, OPACS, RDA, etc, and their relationships with the standardization of e-book's bibliography and the requirements of embedded bibliography in various e-book formats.
4. Level	6
5. Credit	3 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Know metadata and bibliography of e-book</p> <p>6.1.1. Understand the importance of metadata and bibliography for e-book in the internet. Metadata associated with various content components of e-book, such as photograph, layout, text, table, image, video, and animation, etc, can assist to strengthen the linkage among creators, authors and readers.</p> <p>6.1.2. Know the development of different bibliographical formats, such as Dublin Core, MARC21, ONIX, BISAC, OPACS, RDA, etc, and their relationships with the standardization of e-book's bibliography and the requirements of embedded bibliography in various e-book formats.</p> <p>6.2. Based on the above competencies, master how to choose the best materials to be added in metadata and bibliography of e-book.</p>
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Be able to describe the new meanings of metadata and bibliography in the distribution and selling of e-book.</p> <p>(ii) Be able to identify the best materials to be added in the metadata and bibliography of e-book.</p>
8. Remarks	

1. Title	Master production software for e-publishing materials
2. Code	106351L6
3. Range	In the production department of e-publishing company, master various functions of production software for e-publishing to expand publishing space, including the production software with ever-expanding transmedia and trans-platform ability, such as Vook, Kno, Aquafadas, Bibliolabs, Gutenberg Technology, Hurix Systems, Inkling, Galahad, Atavist and YUDU, etc. Master enterprise production software for e-publishing such as Woodwing, Adobe DPS, etc.
4. Level	6
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Know production software for e-publishing materials, which offers various functions to expand publishing space, including the production software with ever-expanding transmedia and trans-platform ability, such as Vook, Kno, Aquafadas, Bibliolabs, Gutenberg Technology, Hurix Systems, Inkling, Galahad, Atavist and YUDU, etc</p> <p>6.2. Know enterprise production software for e-publishing such as Woodwing, Adobe DPS, etc.</p> <p>6.3. Based on the above competencies, be able to choose which e-publishing production software suit appropriately for which kind of e-publishing materials.</p>
7. Assessment Criteria	The integrated outcome requirements of this unit of competency : (i) Be able to master production software for e-publishing materials.
8. Remarks	

1. Title	Master standards of automation for e-publishing
2. Code	106352L6
3. Range	In e-publishing editorial department, know the opportunity from automation of e-publishing offered by markup language XML. In 2008, OASIS, an information structure standardization organization, launched DITA v.1.2, which allows company to automatically generate publishing pages based on pre-planned inter-relationship of information and design modules of publishing layout. It can increase efficiency and lower cost of e-publishing.
4. Level	6
5. Credit	3 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Know the opportunity offered by markup language XML to allow automation of e-publishing.</p> <p>6.1.1. Know DITA v.1.2 launched by OASIS, an information structure standardization organization, in 2008.</p> <p>6.2. Know how company can automatically generate publishing pages based on pre-planned inter-relationship of information and design modules of publishing layout, which increases efficiency and lowers cost of e-publishing.</p> <p>6.3. Based on the above competencies, be able to know e-publishing's development towards automation.</p>
7. Assessment Criteria	The integrated outcome requirement of this unit of competency: (i) Be able to describe the standards and trends of e-publishing automation.
8. Remarks	

Printing and Publishing Industries
“Specification for Competency
Standards”

First Edition Supplement

(Covering revised or new units of competency only)

Publishing Industry
Functional Area of Transmedia
Service

Contents of Units of Competency

1. Title	Master audio creation concept
2. Code	106353L5
3. Range	Audio creation has very important practical value as it can enhance the artistic appeal of other media; but it is often neglected. It enables the audience to reach certain preset mood or behaviours by stimulating their senses, sympathy and interpretation.
4. Level	5
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Master basic music theory, sound sources and audio effects.</p> <p>6.1.1. Master basic music theory, such as musical score sheet, chord, beat, note, scale and tone, etc.</p> <p>6.1.2. Master basic characteristics of different musical instruments.</p> <p>6.1.3. Master the use of different sound sources, such as natural sound sources from wind, water, animals, etc; scene sources such as live record, voice-over, sound-track, etc; special folios such as laser, speed, and robotic voice, etc.</p> <p>6.1.4. Master an understanding on human reactions to audio effects, such as a short dead silence before an explosion sound effect.</p> <p>6.2. Based on the above competency, be able to master basic audio creation.</p> <p>6.3. Master how audio creation can create an impact with other media for a total appeal.</p>
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Be able to perform basic audio creation.</p> <p>(ii) Be able to co-create with other professional audio creators.</p>
8. Remarks	

1. Title	Master audio production concept
2. Code	106354L5
3. Range	There are two main directions in the transition of audio production from analogue to digital technology production, focusing on either accurate reproduction of sound or delivery of timbre and taste. From audio pickups, mixing and archive to playback, very different levels of expected results can be pursued, ranging from standard requirements to audiophile qualities. In this connection, it is necessary to master the decision making for the entire audio production process in order to reach the optimum effects.
4. Level	5
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Understand the basic concept in audio production.</p> <p>6.1.1. Master the basic techniques and methods, and requirements on physical spaces and instruments for audio pick-ups, mixing, and archive.</p> <p>6.1.2. Master the copyrights regulations on musical and audio effects pieces, and the consideration on the changes in rights when these have to be embedded into other media work.</p> <p>6.2. Based on the above competency, master basic audio production.</p> <p>6.3. Master the production of audio at a quality level to meet the specification for playback platform as well as the expectation from the audience regarding audio quality, soundscape, and timbre reproduction, etc.</p>
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Be able to master different quality requirements of audio production regarding techniques, methods, physical spaces and instruments.</p> <p>(ii) Be able to master basic audio production.</p>
8. Remarks	

1. Title	Master video creation concept
2. Code	106355L5
3. Range	Video creation enables the audience to reach certain preset mood or behaviours by stimulating their senses, sympathy and interpretation. Since a video carries both image and audio, it facilitates the vicarious experience of the audience, and video creation enables capture of a bigger market share in media including film, advertisement, music video, news broadcast, etc. The mastery of basic video creation is an asset for reaching out to a bigger audience..
4. Level	5
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Master the elements of video creation, such as script, character design, social awareness, stenography, costume, audio folio, etc.</p> <p>6.1.1. Master the characteristics of different types of video.</p> <p>6.1.2. Master an understanding of human senses in response to video footage, such as the enhanced vicarious experience when watching 3D video footage, etc.</p> <p>6.2. Riding on the above competency, master basic video creation.</p> <p>6.3. Master the use of lighting effects, mood creations, step and storyboard, cinematography and artist performance, etc., in order to achieve the impact of video creation.</p>
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Be able to master the elements of video creation.</p> <p>(ii) Be able to master basic video creation.</p>
8. Remarks	

1. Title	Master video production concept
2. Code	106356L5
3. Range	A fully digital production workflow with highly standardized production formats has been adopted in video production. Conversion of formats among digital film, high definition television or online streaming has been made easy. The video production process including video capture, synchronized audio recording, non-linear editing, archive and playback have become consumer-oriented. In this respect, film production has become even more professional, with higher definition and larger budget.
4. Level	5
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Master the basic requirements of techniques, methods, venue and equipment for video capture, synchronized audio recording, non-linear editing, archive and playback.</p> <p>6.2. Master the regulations on copyrights for video pieces and the consideration of the changes in rights when the video pieces are to be embedded into the work in other media.</p> <p>6.3. Riding on the above competency, master video production quality in meeting the specifications for the intended playback platform.</p>
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Be able to master the requirements of video production in the aspects of technology, methods, venue and equipment.</p> <p>(ii) Be able to master basic video production.</p>
8. Remarks	

1. Title	Master the concept of comic creation
2. Code	106357L5
3. Range	Among various media, comic creation is unique in its lightness and convenience in production, which yet offers enormous room for creativity. Many world-famous fictional characters are originated from comics. Until now, a considerable number of new comical stories have been adapted in the production of television programmes, animation, and films, which provides a sustainable ecosystem of creativity for the media business.
4. Level	5
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Master the borderless room for creativity for virtually anything, complemented with annotation aside, conversation, imagination, and smell .</p> <p>6.1.1. Master the elements of comic creation, such as character design, animal, personification of plants, animals or objects, and supernatural characters. Establish the main story line which can sustain for one year, two years, or over ten years, during which time the characters may remain young in the comic if so wished.</p> <p>6.2. Master the ability in the research for theme and story of comic, and design the image, personality, relationships, and strengths of various characters to gain popularity among readers. Enhance relationship with readers progressively upon initial success in capturing their attention in order to establish a long term readership base.</p> <p>6.3. Based on the above competency, master the basic creation of comics.</p>
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Be able to create themes and characters that attract readers.</p> <p>(ii) Be able to master the basic creation of comics.</p>
8. Remarks	

1. Title	Master animation creation concept
2. Code	106358L5
3. Range	Animation is divided into traditional animation and digital 3D animation technologies. Cel animation is the major traditional animation technique, mainly use for cartoon production. Digital 3D animation is the current technology which can be used for wide types of films.
4. Level	5
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Understand the two main streams of animation creation.</p> <p>6.2. Master the themes and creation elements of animation creation.</p> <p>6.2.1. Master the elements of animation creation, such as design of characters, animals, personification of plants, animals, objects and even supernatural characters.</p> <p>6.2.2. Master the use of perspective, colour and motion transition in cel animation. Master the use of 3D modelling, material, texture, and rendering quality in 3D animation, and in particular in the treatment of primary and secondary motions.</p> <p>6.2.3. Know how to analyze and estimate market response, establish production budget, and a minimum matching promotional budget.</p> <p>6.2.4. Understand the scrupulous care and attention to details required for story boarding for animation creation. Animation creation should go beyond personification. . Its characters should win the heart and affection of the audience more than human characters. Just like comic, characters can stay young forever if so wished.</p> <p>6.2.5. Riding on the above competency, master the creation of basic animation.</p> <p>6.3. Know how to increase the efficiency and quality of animation creation by use of digital technology. Be able to master the calculation and evaluation on overall return on investment with associated risk.</p>
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Be able to create stories and characters that can attract audiences.</p> <p>(ii) Be able to master the creation of basic animation.</p>
8. Remarks	

1. Title	Master 3D special effects creation concept
2. Code	106359L5
3. Range	Thanks to 3D special effects, it is very difficult to distinguish virtual from reality in a video. Grand scenes, characters, motion, changes in weather, and warfare seen by the audience may be generated by digital technology which has greatly expanded the room for creativity of video.
4. Level	5
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Master the process of 3D motion tracking in special effects in order to simulate the movement of cameras in shooting.</p> <p>6.1.1. Master the effects of lighting with shading, reflection and refraction on materials, texture and muscles, especially for the rendering outcome.</p> <p>6.1.2. Master the effect of particles in the simulation of soft objects, such as hair, smoke, wind, fire, water and cloth.</p> <p>6.2. Based on the above competency, master the creation of basic 3D special effects.</p> <p>6.3. Know how to effectively use video with 3D special effects in order to create realistic scenes .</p>
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Be able to master 3D special effect so as to expand the possibilities for video creation.</p> <p>(ii) Be able to master production with basic 3D special effects.</p>
8. Remarks	

1. Title	Master social media platform
2. Code	106360L5
3. Range	In the era of digital communication and entertainment, and with the rapid replacement of desktop by mobile communications, social media provides a convenient platform for socializing and networking. Facebook, Twitter, Yahoo, Google, Youtube, Skype, Whatsapp, Wechat, Weibo are representatives of commonly used social media platforms, while LinkedIn, Classmates, Scribd, Yelp, Openrice are representatives of social media platforms for particular uses or special interests. It is important to master the creation of media to generate hot topics among social media platforms and lead to desirable actions.
4. Level	5
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Know the characteristics of different social media platforms.</p> <p>6.2. Master the use of different social media platforms.</p> <p>6.2.1. Master how to gain a large number of friends or followers on social media platforms, and maintain their support and active engagement with them in the long run.</p> <p>6.2.2. Master the linkage of groups across different social media platforms to allow hot topics to be spread from one platform to another.</p> <p>6.3. Master how to create media for hot topics among social media platforms, and trigger desirable actions.</p>
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Be able to master the creation of hot topics and trigger desirable actions.</p> <p>(ii) Be able to master the use of social media platforms.</p>
8. Remarks	

1. Title	Master advertisement creation concept
2. Code	106361L5
3. Range	Advertisement is an important source of income for traditional platforms printed materials, radio and television channels. It has also quickly become the main source of income for websites and search portals. Naturally, advertisement has become an important driving force for transmedia creation. The synergy in using different media together could be instrumental in promoting products.
4. Level	5
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Understand the importance of target audience and persuasion in advertisement.</p> <p>6.2. Master basic advertisement creation.</p> <p>6.2.1. Master the very clear mission of advertisement creation. As a fundamental requirement, define the target audience clearly, transmit the advertising message with a focus on the target.</p> <p>6.2.2. Master the persuasiveness required by advertisement creation in addressing both the sensation and cognitive levels of target audience, in order to trigger desirable behaviours.</p> <p>6.3. Master the use of transmedia in advertisement creation to derive synergy which would enhance the effects in product promotion.</p>
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Be able to master the synergy generated by the use of transmedia in advertisement creation.</p> <p>(ii) Be able to master basic advertisement creation.</p>
8. Remarks	

1. Title	Master the concept in creation of digital entertainment
2. Code	106362L5
3. Range	The framework for creation of digital entertainment is based mainly upon the elements of theme, level, game, and scene. While the themes can be anything, in transmedia creation they are usually created around human-related topics for the ease of linking up players. The use of level and game can increase the degree of entertainment and challenge to the players. Changes of scenes can avoid the risk of players feeling tired and monotonous towards a game under the same theme. The mastery of basic digital entertainment creation can increase participation of players with the use of different platforms.
4. Level	5
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Master the elements of digital entertainment creation, such as theme, level, game, and scene, and exploit the power of interaction of the four elements.</p> <p>6.2. Master the use of digital entertainment in increasing participation of audience- in a transmedia campaign. Understand the benefits of a theme with personification in facilitating collaboration among different media.</p> <p>6.3. Riding on the above competency, master the creation of basic digital entertainment and increase participation of audience through the use of different media platforms.</p>
7. Assessment Criteria	The integrated outcome requirements of this unit of competency are: (i) Be able to master the effect of digital entertainment in increasing participation of audience in a transmedia campaign. (ii) Be able to master basic creation of digital entertainment.
8. Remarks	

1. Title	Master transmedia production workflow
2. Code	106363L5
3. Code	The partnership models in a transmedia cooperation would vary according to the situation rather than following a fixed format, and the production workflow would vary accordingly. A mastery of the transmedia production workflow is important, as it provides some kinds of common language among different media, which would facilitate collaboration.
4. Level	5
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Master how to change the workflow of transmedia production and optimize the cooperation.</p> <p>6.2. Master the common language in production workflows of different media in order to generate satisfactory dovetailing.</p> <p>6.3. Riding on the above competency, master the workflow in transmedia production.</p>
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Be able to master the common language of production workflow of different media in order to generate satisfactory dovetailing.</p> <p>(ii) Be able to master transmedia production workflow.</p>
8. Remarks	

1. Title	Understand the creation and strategic direction of transmedia
2. Code	106364L6
3. Range	In tandem with advances in information technology, media become far reaching and are changing the emphasis on coverage with mass media to personalization based on interactive media. There is also a change from unidirectional distribution of content from the publisher in the past to creation, distribution and amendment of contents through interaction between the publisher and the audience, as well as that between audiences in a multi-directional and participative manner. Transmedia creation brings in the synergy of utilizing various media platforms to achieve great impacts that have not been reached by a single media before. Different from multimedia, transmedia assembles different media into one hosting media, platform or channel. It does not rely on one single leading media, but holistically form a strategic direction through co-creation of a few media using multi-platform and multi-channel for achieving an impact.
4. Level	6
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Understand the differences between multimedia and transmedia, and which scenarios are suitable for applying what approach.</p> <p>6.2. Understand the strategic direction and interactive mechanism with audiences behind success cases of transmedia campaign.</p> <p>6.3. Riding on the above competency, further the publishing concept to integrate more media, platform and channel.</p>
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Be able to describe the new concept of transmedia.</p> <p>(ii) Be able to participate in strategic discussions of transmedia creation.</p>
8. Remarks	

1. Title	Understand the partnership models of transmedia
2. Code	106365L6
3. Range	Transmedia creation by nature crosses the boundaries of different media in the past. They include write-up in printed book/ e-book, blog/ micro blog/ Facebook, lyrics, lines/ dialogue and news broadcast, audios in music, folios, beat, and phone-in/ commentary radio programme, advertisement creation in gimmick, message, and hot/ viral topics, graphic creation in comic, photography, illustration, font, symbol, color and layout, fashion design in generation, ethnic, color, character, and image,, digital entertainment creation as in theme, level, game, and scene, video creation in film, animation, character, special effects, story and social background, arts in behavior, perspective, performance, individual and ethnicity There is a lot of common ground for different media, though the incompatibility of channels in the past has drawn boundaries between them: going to the cinema for films, to the opera for music and bookstore for books. But technological innovation and frequent interactions have changed the world of media, and transmedia offers a form of partnership to pragmatically deal with what appears to be a chaotic situation.
4. Level	6
5. Credit	6 (For reference only)
6. Competency	<p><u>Performance requirements</u></p> <p>6.1. Understand the platforms and channels of other media besides e-publishing and print publishing, and the interactive relationships of these media with the audiences.</p> <p>6.1.1. Understand the unique position of e-publishing and print publishing in transmedia creation, and the partnership in the co-creation process in collaboration with other media.</p> <p>6.1.2. Understand the different degree of closeness of relationships between different partners in a transmedia partnership.</p> <p>6.2. Master the clear guidelines with an overarching framework for “dos and don’ts” in a co-creation process for partner media.</p> <p>6.3. Based on the above competency, participate in the co-creation process in transmedia partnership project.</p>
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Be able to establish a position for publishing and printing in a transmedia creation team.</p> <p>(ii) Be able to participate in the co-creation process in transmedia partnership project.</p>
8. Remarks	

Level	Generic Level Descriptors			
	Knowledge & Intellectual Skills	Processes	Application, Autonomy & Accountability	Communication, IT and Numeracy
1	<ul style="list-style-type: none"> - Employ recall and demonstrate elementary comprehension in a narrow range of areas with dependency on ideas of others - Exercise basic skills - Receive and pass on Information - Use, under supervision or prompting, basic tools and materials. - Apply learnt responses to solve Problems - Operate in familiar, personal and/or everyday contexts - Take some account, with prompting, of identified consequences of actions. 	<ul style="list-style-type: none"> - Operate mainly in closely defined and highly structured contexts - Carry out processes that are repetitive and predictable - Undertake the performance of clearly defined tasks - Assume a strictly limited range of roles. 	<ul style="list-style-type: none"> - The ability to perform tasks of routine and repetitive nature given clear direction - Carry out directed activity under close supervision - Rely entirely on external monitoring of output and quality 	<ul style="list-style-type: none"> - Use very simple skills with assistance — for example: - Take some part in discussions about straightforward subjects - Read and identify the main points and ideas from documents about straightforward subjects - Produce and respond to a limited range of simple, written and oral communications, in familiar/routine contexts - Carry out a limited range of simple tasks to process data and access information - Use a limited range of very simple and familiar numerical and pictorial data - Carry out calculations, using whole numbers and simple decimals to given levels of accuracy.

Level	Generic Level Descriptors			
	Knowledge & Intellectual Skills	Processes	Application, Autonomy & Accountability	Communication, IT and Numeracy
2	<ul style="list-style-type: none"> - Apply knowledge based on an underpinning comprehension in a selected number of areas - Make comparisons with some evaluation and interpret available information - Apply basic tools and materials and use rehearsed stages for solving problems. - Operate in familiar, personal and/or everyday contexts - Take account the identified consequences of actions 	<ul style="list-style-type: none"> - Choose from a range of procedures performed in a number of contexts, a few of which may be non-routine - Co-ordinate with others to achieve common goals. 	<ul style="list-style-type: none"> - The ability to perform a range of tasks in predictable and structured contexts - Undertake directed activity with a degree of autonomy - Achieve outcomes within time constraints - Accept defined responsibility for quantity and quality of output subject to external quality checking. 	<ul style="list-style-type: none"> - Use skills with some assistance — for example: - Take active part in discussions about identified subjects - Identify the main points and ideas from documents and reproduce them in other contexts - Produce and respond to a specified range of written and oral communications, in familiar/routine contexts - Carry out a defined range of tasks to process data and access information - Use a limited range of familiar numerical and graphical data in everyday contexts - Carry out calculations, using percentages and graphical data to given levels of accuracy.

Level	Generic Level Descriptors			
	Knowledge & Intellectual Skills	Processes	Application, Autonomy & Accountability	Communication, IT and Numeracy
3	<ul style="list-style-type: none"> - Apply knowledge and skills in a range of activities, demonstrating comprehension of relevant theories - Access, organise and evaluate information independently and make reasoned judgements in relation to a subject or discipline - Employ a range of responses to well defined, but sometimes unfamiliar or unpredictable, problems - Make generalisations and predictions in familiar contexts. 	<ul style="list-style-type: none"> - Operate in a variety of familiar and some unfamiliar contexts, using a known range of technical or learning skills - Select from a considerable choice of predetermined procedures - Give presentations to an audience 	<ul style="list-style-type: none"> - The ability to perform tasks in a broad range of predictable and structured contexts which may also involve some non-routine activities requiring a degree of individual responsibility - Engage in self-directed activity with guidance/evaluation - Accept responsibility for quantity and quality of output - Accept well defined but limited responsibility for the quantity and quality of the output of others 	<ul style="list-style-type: none"> - Use a wide range of largely routine and well practiced skills — for example: - Produce and respond to detailed and complex written and oral communication in familiar contexts, and use a suitable structure and style when writing extended documents. - Select and use standard applications to obtain, process and combine information - Use a wide range of numerical and graphical data in routine contexts, which may have some non-routine elements.

Level	Generic Level Descriptors			
	Knowledge & Intellectual Skills	Processes	Application, Autonomy & Accountability	Communication, IT and Numeracy
4	<ul style="list-style-type: none"> - Develop a rigorous approach to the acquisition of a broad knowledge base, with some specialist knowledge in selected areas - Present and evaluate information, using it to plan and develop investigative strategies - Deal with well defined issues within largely familiar contexts, but extend this to some unfamiliar problems - Employ a range of specialized skills and approaches to generate a range of responses. 	<ul style="list-style-type: none"> - Operate in a range of varied and specific contexts involving some creative and non-routine activities - Exercise appropriate judgement in planning, selecting or presenting information, methods or resources - Carry out routine lines of enquiry, development of investigation into professional level issues and problems. 	<ul style="list-style-type: none"> - The ability to perform skilled tasks requiring some discretion and judgement and undertake a supervisory role - Undertake self-directed and a some directive activity - Operate within broad general guidelines or functions - Take responsibility for the nature and quantity of own outputs - Meet specified quality standards - Accept some responsibility for the quantity and quality of the output of others 	<ul style="list-style-type: none"> - Use a wide range of routine skills and some advanced skills associated with the subject/discipline — for example: - Present using a range of techniques to engage the audience in both familiar and some new contexts - Read and synthesise extended information from subject documents; organise information coherently, convey complex ideas in well- structured form - Use a range of IT applications to support and enhance work - Plan approaches to obtaining and using information, choose appropriate methods and data to justify results & choices - Carry out multi-stage calculations.

Level	Generic Level Descriptors			
	Knowledge & Intellectual Skills	Processes	Application, Autonomy & Accountability	Communication, IT and Numeracy
5	<ul style="list-style-type: none"> - Generate ideas through the analysis of abstract information and concepts - Command wide ranging, specialised technical, creative and/or conceptual skills - Identify and analyse both routine and abstract professional problems and issues, and formulate evidence-based responses - Analyse, reformat and evaluate a wide range of information - Critically analyse, evaluate and/or synthesise ideas, concepts, information and issues - Draw on a range of sources in making judgments. 	<ul style="list-style-type: none"> - Utilise diagnostic and creative skills in a range of technical, professional or management functions - Exercise appropriate judgement in planning, design, technical and/or supervisory functions related to products, services, operations or processes. 	<ul style="list-style-type: none"> - Perform tasks involving planning, design, and technical skills, and involving some management functions - Accept responsibility and accountability within broad parameters for determining and achieving personal and/or group outcomes - Work under the mentoring of senior qualified practitioners - Deal with ethical issues, seeking guidance of others where appropriate. 	<ul style="list-style-type: none"> - Use a range of routine skills and some advanced and specialized skills in support of established practices in a subject/discipline, for example: - Make formal and informal presentations on standard/mainstream topics in the subject/discipline to a range of audiences - Participate in group discussions about complex subjects; create opportunities for others to contribute - Use a range of IT applications to support and enhance work - Interpret, use and evaluate numerical and graphical data to achieve goals/targets.

Level	Generic Level Descriptors			
	Knowledge & Intellectual Skills	Processes	Application, Autonomy & Accountability	Communication, IT and Numeracy
6	<ul style="list-style-type: none"> -Critically review, consolidate, and extend a systematic, coherent body of knowledge - Utilise highly specialized technical research or scholastic skills across an area of study - Critically evaluate new information, concepts and evidence from a range of sources and develop creative responses - Critically review, consolidate and extend knowledge, skills practices and thinking in a subject/discipline - Deal with complex issues and make informed judgements in the absence of complete or consistent data/information. 	<ul style="list-style-type: none"> -Transfer and apply diagnostic and creative skills in a range of situations - Exercise appropriate judgement in complex planning, design, technical and/or management functions related to products, services, operations or processes, including resourcing and evaluation - Conduct research, and/or advanced technical or professional activity - Design and apply appropriate research methodologies. 	<ul style="list-style-type: none"> - Apply knowledge and skills in a broad range of professional work activities - Practice significant autonomy in determining and achieving personal and/or group outcomes - Accept accountability in related decision making including use of supervision - Demonstrate leadership and /or make an identifiable contribution to change and development. 	<ul style="list-style-type: none"> - Communicate, using appropriate methods, to a range of audiences including peers, senior colleagues, specialists - Use a wide range of software to support and enhance work; identify refinements to existing software to increase effectiveness or specify new software - Undertake critical evaluations of a wide range of numerical and graphical data, and use calculations at various stages of the work.

Level	Generic Level Descriptors			
	Knowledge & Intellectual Skills	Processes	Application, Autonomy & Accountability	Communication, IT and Numeracy
7	<ul style="list-style-type: none"> - Demonstrate and work with a critical overview of a subject or discipline, including an evaluative understanding of principal theories and concepts, and of its broad relationships with other disciplines - Identify, conceptualise and offer original and creative insights into new, complex and abstract ideas and information - Deal with very complex and/or new issues and make informed judgements in the absence of complete or consistent data/information - Make a significant and original contribution to a specialized field of inquiry, or to broader interdisciplinary relationships. 	<ul style="list-style-type: none"> - Demonstrate command of research and methodological issues and engage in critical dialogue - Develop creative and original responses to problems and issues in the context of new circumstances. 	<ul style="list-style-type: none"> - Apply knowledge and skills in a broad range of complex and professional work activities, including new and unforeseen circumstances - Demonstrate leadership and originality in tackling and solving problems - Accept accountability in related decision making - High degree of autonomy, with full responsibility for own work, and significant responsibility for others - Deal with complex ethical and professional issues. 	<ul style="list-style-type: none"> - Strategically use communication skills, adapting context and purpose to a range of audiences - Communicate at the standard of published academic work and/or critical dialogue - Monitor, review and reflect on own work and skill development, and change and adapt in the light of new demands - Use a range of software and specify software requirements to enhance work, anticipating future requirements - Critically evaluate numerical and graphical data, and employ such data extensively.

**Comparison table for the New and Revised Units of Competency in
Specification of Competency Standards for the Printing and Publishing Industry**

Category	Functional Area	Level	Units of Competency	Code	Credit	Remarks
Printing	1. Operation and Management	1	Know printing related legislation	106232L1	3	This UoC originates from PPPROM101A in the First Edition of SCS, which content has been revised.
		2	Understand computerised printing processes	106233L2	3	This UoC originates from PPPROM201A in the First Edition of SCS, which content has been revised.
		3	Understand printing related legislations	106234L3	6	This UoC originates from PPPROM301A in the First Edition of SCS, which content has been revised.
		3	Know digital printing procedures	106235L3	6	This UoC originates from PPPROM302A in the First Edition of SCS, which content has been revised.
		3	Understand the techniques for controlling print production processes	106236L3	6	This UoC originates from PPPROM303A in the First Edition of SCS, which content has been revised.
		3	Understand printing production management	106237L3	6	This UoC originates from PPPROM304A in the First Edition of SCS, which content has been revised.
		4	Master printing related legislations	106238L4	6	This UoC originates from PPPROM401A in the First Edition of SCS, which content has been revised.
		4	Master the electronic information system for printing	106239L4	6	This UoC originates from PPPROM403A in the First Edition of SCS, which content has been revised.
		5	Understand the system and development of printing standards	106240L5	3	This is a new UoC.

Category	Functional Area	Level	Units of Competency	Code	Credit	Remarks
Printing		5	Understand the merits and purposes of printing standards	106241L5	3	This is a new UoC.
		5	Master resource requirements for implementing printing standards	106242L5	6	This is a new UoC.
		5	Understand certification of printing standards	106243L5	6	This is a new UoC.
		6	Ensure effective corporate operation by flexibly implementing Entrepreneurial Resources Planning	106244L6	6	This UoC originates from PPPROM603A in the First Edition of SCS, which content has been revised.
	2. Prepress Technology	1	Know digital output techniques	106245L1	6	This UoC originates from PPPRPE105A in the First Edition of SCS, which content has been revised.
		2	Know basic digital photography techniques	106246L2	6	This UoC originates from PPPRPE206A in the First Edition of SCS, which content has been revised.
		3	Understand preflight techniques	106247L3	6	This UoC originates from PPPRPE306A in the First Edition of SCS, which content has been revised.
		3	Understand computer-to-plate (CTP) technology	106248L3	6	This UoC originates from PPPRPE309A in the First Edition of SCS, which content has been revised.
		3	Understand digital file management techniques	106249L3	6	This UoC originates from PPPRPE310A in the First Edition of SCS, which content has been revised.
		4	Master digital prepress technology	106250L4	6	This UoC originates from PPPRPE401A in the First Edition of SCS, which content has been revised.
		4	Master digital output techniques	106251L4	6	This UoC originates from PPPRPE403A in the First Edition of SCS, which content has been revised.

Category	Functional Area	Level	Units of Competency	Code	Credit	Remarks
Printing		5	Master uniform calibration in prepress	106252L5	6	This is a new UoC.
		6	Plan digital printing workflow system	106253L6	6	This UoC originates from PPPRPE601A in the First Edition of SCS, which content has been revised.
	3. Printing Technology	1	Know basic printing technology	106254L1	3	This UoC originates from PPPRPR101A in the First Edition of SCS, which content has been revised.
		1	Know basic press proof inspection	106255L1	3	This UoC originates from PPPRPR104A in the First Edition of SCS, which content has been revised.
		2	Understand application of printing technology	106256L2	3	This UoC originates from PPPRPR201A in the First Edition of SCS, which content has been revised.
		2	Master operation of lithographic printing press for paper feeding, delivery and registration	106257L2	6	This UoC originates from PPPRPR202A in the First Edition of SCS, which content has been revised.
		3	Understand digital printing technology	106258L3	6	This UoC originates from PPPRPR302A in the First Edition of SCS, which content has been revised.
		4	Understand 3D Lenticular Printing technology	106259L4	6	This is a new UoC.
		5	Establish printing press calibration procedure in compliance with international printing standard	106260L5	6	This is a new UoC.
		5	Establish development plan for inject printing products	106261L5	6	This is a new UoC.
		5	Establish development plan for large format inkjet printing products	106262L5	6	This is a new UoC.
		5	Establish development plan for variable data printing technology	106263L5	6	This is a new UoC.

Category	Functional Area	Level	Units of Competency	Code	Credit	Remarks
Printing		5	Establish development plan for electrostatic printing products	106264L5	6	This is a new UoC.
		5	Establish inline quality monitoring system for lithographic printing press	106265L5	3	This is a new UoC.
		5	Establish effective anti-counterfeit printing and authentication system	106266L5	6	This is a new UoC.
		5	Analyse development potentials of functional material printing products	106267L5	6	This is a new UoC.
	4. Postpress Technology	2	Understand the applications of postpress technology	106268L2	3	This UoC originates from PPPRPO201A in the First Edition of SCS, which content has been revised.
		5	Understand inline postpress technology for variable data printing	106269L5	3	This is a new UoC.
		5	Understand inline postpress technology	106270L5	3	This is a new UoC.
	5. Customer/ Consumer Relations	1	Understand basic Chinese terminology	106271L1	3	This UoC originates from PPPRCR101A in the First Edition of SCS, which content has been revised.
		2	Understand the applications of Chinese terminology	106272L2	3	This UoC originates from PPPRCR201A in the First Edition of SCS, which content has been revised.
		5	Formulate print product marketing strategies	106273L5	6	This UoC originates from PPPRCR502A in the First Edition of SCS, which content has been revised.
	6. Information Technology	3	Understand basic programming and internet publishing techniques	106274L3	6	This UoC originates from PPPRIT303A in the First Edition of SCS, which content has been revised.

Category	Functional Area	Level	Units of Competency	Code	Credit	Remarks
Printing		4	Understand internet technology	106275L4	6	This UoC originates from PPPRIT402A in the First Edition of SCS, which content has been revised.
		4	Master the techniques for publishing digital audio-visual contents over the internet	106276L4	6	This UoC originates from PPPRIT406A in the First Edition of SCS, which content has been revised.
		6	Build an online transaction system catering for printing business	106277L6	6	This UoC originates from PPPRIT601A in the First Edition of SCS, which content has been revised.
	7. Quality Management	2	Understand printing quality management	106278L2	3	This UoC originates from PPPRQM201A in the First Edition of SCS, which content has been revised.
		3	Understand print quality control and management	106279L3	6	This UoC originates from PPPRQM301A in the First Edition of SCS, which content has been revised.
		5	Employ printing standards in establishing a coherent quality assurance mechanism	106280L5	6	This is a new UoC.
	8. Printing Machinery	1	Know the basic operation of printing machinery	106281L1	3	This UoC originates from PPPRPM101A in the First Edition of SCS, which content has been revised.
		2	Understand printing machinery maintenance	106282L2	3	This UoC originates from PPPRPM201A in the First Edition of SCS, which content has been revised.
	9. Colour Management	5	Implement colour management standards	106283L5	6	This is a new UoC.

Category	Functional Area	Level	Units of Competency	Code	Credit	Remarks
Printing	10. Product Structure	2	Understand digital storage media	106284L2	3	This UoC originates from PPRPS202A in the First Edition of SCS, which content has been revised.
	11. Material Technology	1	Know the properties of major printing materials	106285L1	3	This UoC originates from PPRMT101A in the First Edition of SCS, which content has been revised.
		2	Understand the applications of printing materials	106286L2	3	This UoC originates from PPRMT201A in the First Edition of SCS, which content has been revised.
		3	Understand the structures of printing materials	106287L3	6	This UoC originates from PPRMT301A in the First Edition of SCS, which content has been revised.
		4	Understand printing material testing	106288L4	6	This UoC originates from PPRMT401A in the First Edition of SCS, which content has been revised.
		5	Adopt printing material standards	106289L5	6	This is a new UoC.
	12. Green Printing	4	Master the calculation of carbon footprints	106290L4	3	This is a new UoC.
		4	Master print production workflows that meet the international environmental standards	106291L4	6	This is a new UoC.
		4	Master the calculation of electronic/digital media's carbon footprints	106292L4	3	This is a new UoC.
		5	Formulate corporate environmental policies	106293L5	3	This is a new UoC.
		5	Formulate policies on procurement of environmentally friendly papers	106294L5	6	This is a new UoC.
		5	Formulate corporate policies on	106295L5	3	This is a new UoC.

Category	Functional Area	Level	Units of Competency	Code	Credit	Remarks
Printing			procurement and use of green printing materials			
	13. e-Commerce	4	Understand the deployment of e-commerce in printing industry	106296L4	3	This is a new UoC.
		4	Understand the customer services of e-commerce in printing industry	106297L4	3	This is a new UoC.
		5	Establish order fulfillment system for e-commerce in printing industry	106298L5	3	This is a new UoC.
		5	Set up online store for e-commerce in printing industry	106299L5	6	This is a new UoC.
		5	Establish marketing plan and sell the non-paper based print products through e-commerce in printing industry	106300L5	3	This is a new UoC.
		5	Establish network security system for e-commerce in printing industry	106301L5	3	This is a new UoC.
		5	Establish payment gateway system for e-commerce in printing industry	106302L5	3	This is a new UoC.
		5	Establish marketing plan for e-commerce in printing industry	106303L5	6	This is a new UoC.
		6	Plan for the establishment of e-commerce business for a printing company	106304L6	6	This is a new UoC.
		6	Establish financial management system for e-commerce in printing industry	106305L6	6	This is a new UoC.
	14. Management	5	Understand publishing enterprise management	106306L5	6	This UoC originates from PPPUMN501A in the First Edition of SCS, which content has been revised.

Category	Functional Area	Level	Units of Competency	Code	Credit	Remarks	
Publishing		5	Understand the applications of e-commerce in publishing industry	106307L5	6	This is a new UoC.	
		5	Understand the global development trend of media and entertainment industries and their interactive shares in total market size	106308L5	3	This is a new UoC.	
		6	Set short term and long term goals for publishing enterprise	106309L6	6	This UoC originates from PPPUMN601A in the First Edition of SCS, which content has been revised.	
	15. Editing		5	Carry out electronic/online publication processing and production	106310L5	6	This UoC originates from PPPUED503A in the First Edition of SCS, which content has been revised.
			5	Execute electronic/online publishing	106311L5	6	This UoC originates from PPPUED504A in the First Edition of SCS, which content has been revised.
			5	Execute AV processing and production	106312L5	6	This UoC originates from PPPUED505A in the First Edition of SCS, which content has been revised.
			5	Execute AV publishing	106313L5	6	This UoC originates from PPPUED506A in the First Edition of SCS, which content has been revised.
			5	Master subject selection and commissioning in the editorial process of publishing	106314L5	6	This is a new UoC.
			6	Formulate copyright management strategy	106315L6	6	This UoC originates from PPPUED603A in the First Edition of SCS, which content has been revised.
			6	Implement subject selection, commissioning and planning in trans-region publishing	106316L6	6	This is a new UoC.
	16. Art and		2	Know multimedia design skills	106317L2	3	This UoC originates from PPPUAD203A in

Category	Functional Area	Level	Units of Competency	Code	Credit	Remarks
Publishing	Design					the First Edition of SCS, which content has been revised.
		3	Understand multimedia design skills	106318L3	6	This UoC originates from PPPUAD304A in the First Edition of SCS, which content has been revised.
		4	Master various design skills	106319L4	6	This UoC originates from PPPUAD401A in the First Edition of SCS, which content has been revised.
	17. Production	3	Know basic processing flow for printing	106320L3	3	This UoC originates from PPPUPD301A in the First Edition of SCS, which content has been revised.
	18. Distribution and Sales	3	Understand sales and marketing skills	106321L3	6	This UoC originates from PPPUDS301A in the First Edition of SCS, which content has been revised.
		3	Understand the distribution workflow	106322L3	6	This UoC originates from PPPUDS302A in the First Edition of SCS, which content has been revised.
	19. e-Publishing	4	Understand target reader groups of e-publishing	106323L4	6	This is a new UoC.
		4	Understand the industry chain of e-publishing	106324L4	6	This is a new UoC.
		4	Understand production methodologies of different e-publishing materials	106325L4	6	This is a new UoC.
		4	Understand new technology and concept affecting e-publishing development	106326L4	6	This is a new UoC.
		5	Master integrated concept of e-publishing	106327L5	3	This is a new UoC.

Category	Functional Area	Level	Units of Competency	Code	Credit	Remarks
Publishing		5	Understand the relationship between copyright ordinance and e-publishing	106328L5	3	This is a new UoC.
		5	Understand the analytics of digital marketing	106329L5	3	This is a new UoC.
		5	Establish e-book marketing plan	106330L5	3	This is a new UoC.
		5	Establish financial budget for e-publishing	106331L5	3	This is a new UoC.
		5	Understand the customer data security for e-publishing	106332L5	3	This is a new UoC.
		5	Master e-book formats	106333L5	3	This is a new UoC.
		5	Understand terms of co-operation of e-bookshop	106334L5	3	This is a new UoC.
		5	Master the function of Mark-up Language (ML) in e-book	106335L5	6	This is a new UoC.
		5	Master the function of Cascading Style Sheets (CSS) in e-book	106336L5	6	This is a new UoC.
		5	Understand display characteristics of e-book readers	106337L5	3	This is a new UoC.
		5	Master e-book production software	106338L5	6	This is a new UoC.
		5	Master content conversion of e-publishing materials	106339L5	3	This is a new UoC.
		6	Establish development strategy for e-publishing	106340L6	6	This is a new UoC.
		6	Understand business models of e-publishing	106341L6	6	This is a new UoC.
		6	Master digital rights management of e-publishing	106342L6	6	This is a new UoC.

Category	Functional Area	Level	Units of Competency	Code	Credit	Remarks
Publishing		6	Master digital content management of e-publishing	106343L6	6	This is a new UoC.
		6	Implement visual and user interface design of e-book	106344L6	6	This is a new UoC.
		6	Implement structure design of e-book	106345L6	6	This is a new UoC.
		6	Innovate products and services for digital market	106346L6	3	This is a new UoC.
		6	Formulate promotion strategies for digital market	106347L6	6	This is a new UoC.
		6	Execute workflow management of e-publishing	106348L6	3	This is a new UoC.
		6	Master editorial management of e-publishing	106349L6	6	This is a new UoC.
		6	Master metadata and bibliography of e-book	106350L6	3	This is a new UoC.
		6	Master production software for e-publishing materials	106351L6	6	This is a new UoC.
		6	Master standards of automation for e-publishing	106352L6	3	This is a new UoC.
Publishing	20. Transmedia Service	5	Master audio creation concept	106353L5	6	This is a new UoC.
		5	Master audio production concept	106354L5	6	This is a new UoC.
		5	Master video creation concept	106355L5	6	This is a new UoC.
		5	Master video production concept	106356L5	6	This is a new UoC.
		5	Master the concept of comic creation	106357L5	6	This is a new UoC.
		5	Master animation creation concept	106358L5	6	This is a new UoC.
		5	Master 3D special effects creation concept	106359L5	6	This is a new UoC.
		5	Master social media platform	106360L5	6	This is a new UoC.
		5	Master advertisement creation	106361L5	6	This is a new UoC.

Category	Functional Area	Level	Units of Competency	Code	Credit	Remarks
			concept			
		5	Master the concept in creation of digital entertainment	106362L5	6	This is a new UoC.
		5	Master transmedia production workflow	106363L5	6	This is a new UoC.
		5	Understand the creation and strategic direction of transmedia	106364L6	6	This is a new UoC.
		5	Understand the partnership models of transmedia	106365L6	6	This is a new UoC.

List of Units of Competency with Adjustments on Credit Size (as at October 2017)

Category	Functional Area	Level	Units of Competency	Code	Original Credit	Revised Credit
Printing	1.Operation and Management	1	Know printing related legislation	106232L1	12	3
		2	Understand computerised printing processes	106233L2	6	3
		2	Know printing logistics	PPPROM202A	6	3
		3	Understand printing related legislations	106234L3	12	6
		3	Understand the techniques for controlling print production processes	106236L3	12	6
		3	Understand logistics control for printing	PPPROM305A	6	3
		3	Understand personnel management	PPPROM306A	6	3
		4	Master printing related legislations	106238L4	12	6
		4	Understand techniques for controlling digital flow	PPPROM402A	6	3
		4	Master the electronic information system for printing	106239L4	12	6
		4	Master printing production flow planning and management techniques	PPPROM404A	9	4
		4	Master logistic control techniques for printing	PPPROM405A	9	4
		4	Master skills for printing professionals training and management	PPPROM406A	6	4
		4	Adopt income based expenditure management and operation code for printing enterprise	PPPROM407A	9	4
		5	Set departmental budget	PPPROM501A	12	4

Printing	1.Operation and Management	5	Set budget balancing management system and operation code for printing enterprise	PPPROM502A	12	4
		5	Set departmental operation plan, management structure and professional code for printing enterprise	PPPROM503A	12	4
		5	Effect human resources management	PPPROM504A	12	4
		5	Set up digital flow system	PPPROM505A	12	6
		5	Master techniques for load balancing between production processes	PPPROM506A	12	6
		5	Master establishment of computerized warehousing system for printing materials and print products	PPPROM507A	12	6
		5	Set departmental procedures and codes for printing material purchasing and outsource processing	PPPROM508A	12	4
		6	Set short, medium and long term goals for printing enterprise	PPPROM601A	15	6
		6	Plan printing enterprise operation structure and general codes	PPPROM602A	15	6
		6	Ensure effective enterprise operation by flexibly implementing Entrepreneurial Resources Planning	106244L6	15	6
		6	Master printing enterprise financing method and skills	PPPROM604A	15	6
		6	Work out printing production plant design	PPPROM605A	15	6
		6	Establish scale of operation for strategic business unit of printing enterprise	PPPROM606A	15	6
		6	Master skills for handling crises in printing enterprise	PPPROM607A	15	6

Printing	2. Creativity	1	Know basic design	PPPRCT101A	12	3
		2	Know design skills	PPPRCT201A	12	3
		3	Know cultural studies	PPPRCT301A	9	3
		3	Understand design	PPPRCT302A	12	3
		4	Understand printing design	PPPRCT401A	12	3
		5	Master cross-media, cross-culture and cross-product design elements	PPPRCT501A	12	6
		6	Plan new product production line	PPPRCT601A	15	6
	3. Prepress technology	1	Use Chinese and English input techniques	PPPRPE101A	9	3
		1	Know computer page composition techniques	PPPRPE102A	12	3
		1	Know computer graphics skills	PPPRPE103A	12	3
		1	Know computer retouching techniques	PPPRPE104A	12	3
		1	Know digital output techniques	106245L1	12	6
		2	Master Chinese computer input techniques	PPPRPE201A	6	3
		2	Understand computer page composition methods	PPPRPE202A	12	3
		2	Understand computer graphics methods	PPPRPE203A	12	3
		2	Understand computer retouching methods	PPPRPE204A	12	3
		2	Understand manual assembly / plate making methods	PPPRPE205A	12	3
		2	Know basic techniques for computer scanning and image input	PPPRPE207A	6	3
		2	Know preflight techniques	PPPRPE208A	6	3
		3	Understand digital photography technology	PPPRPE301A	6	3
3	Master manual assembly / plate making techniques	PPPRPE302A	12	6		
3	Master computer graphics techniques	PPPRPE303A	12	6		

Printing	3. Prepress technology	3	Master computer retouching techniques	PPPRPE304A	12	6
		3	Master computer page composition techniques	PPPRPE305A	12	6
		3	Understand preflight techniques	106247L3	9	6
		3	Understand computer scanning and image input technology	PPPRPE307A	6	3
		3	Understand computer page imposition technology	PPPRPE308A	6	3
		3	Understand digital file management techniques	106249L3	12	6
		4	Master digital prepress technology	106250L4	12	6
		4	Master application of computer image input	PPPRPE402A	12	6
		4	Master digital output techniques	106251L4	12	6
		4	Understand digital printing flow system	PPPRPE404A	12	6
		5	Plan facilities configuration and development of prepress department	PPPRPE501A	12	4
		5	Master upstream and downstream coordination in prepress department	PPPRPE502A	12	4
		5	Master horizontal coordination of prepress department	PPPRPE503A	12	4
		5	Plan remote prepress processing flow	PPPRPE504A	12	4
		5	Master digital printing flow system adoption and support	PPPRPE505A	12	6
		6	Plan digital printing workflow system	106253L6	15	6
		4. Printing Technology	1	Know basic printing technology	106254L1	12
		1	Know basic operation of lithographic printing press for paper feeding and discharging and registration	PPPRPR102A	12	3

Printing	4.Printing Technology	1	Know adjustment and operation of ink roller, dampening, plate, rubber and pressure systems of lithographic printing press	PPRPR103A	12	3
		1	Know basic press proof inspection	106255L1	9	3
		1	Know screen printing operation	PPRPR105A	12	3
		1	Know flexographic printing operation	PPRPR106A	12	3
		2	Understand application of printing technology	106256L2	6	3
		2	Master operation of lithographic printing press for paper feeding, delivery and registration	106257L2	12	6
		2	Master techniques for adjusting and operating ink roller, dampening, plate, rubber and pressure systems of lithographic printing press	PPRPR203A	12	3
		2	Understand screen printing procedures	PPRPR204A	6	3
		2	Master ink mixing techniques	PPRPR205A	12	3
		2	Understand flexographic printing procedures	PPRPR206A	6	3
		3	Master printing technology	PPRPR301A	6	3
		3	Master lithographic printing technology	PPRPR303A	12	6
		3	Master press proof inspection	PPRPR304A	6	3
		4	Master printing technology application	PPRPR401A	12	6
		4	Understand special printing techniques	PPRPR402A	12	3
		5	Plan facilities configuration and development of printing department	PPRPR501A	12	4
		5	Master upstream and downstream coordination for printing department	PPRPR502A	12	4
		5	Master horizontal coordination of printing department	PPRPR503A	12	4

Printing	5.Postpress Technology	1	Know basic postpress technology	PPRPO101A	12	3
		2	Understand the applications of postpress technology	106268L2	12	3
		3	Understand postpress technological control	PPRPO301A	12	3
		4	Understand requirements for postpress technology and techniques for controlling	PPRPO401A	9	3
		5	Plan facilities configuration and development of postpress department	PPRPO501A	12	4
		5	Master upstream and downstream coordination for postpress department	PPRPO502A	12	4
		5	Master horizontal coordination of postpress department	PPRPO503A	12	4
	6.Estimation and Costing	2	Know basic printing cost estimation	PPPREC201A	6	3
		3	Understand printing cost estimation	PPPREC301A	12	3
		4	Understand print costing	PPPREC401A	12	3
		4	Master use of print costing	PPPREC402A	12	6
		5	Master cost and price estimation of newly developed print products	PPPREC501A	12	6
		5	Master set up and maintenance of computerized pricing system for printing	PPPREC502A	12	6
		6	Set production price for printing enterprise	PPPREC601A	15	6
	7.Customer/ Consumer relations	1	Understand basic Chinese terminology	106271L1	12	3
		2	Understand the applications of Chinese terminology	106272L2	12	3
		2	Know basic customer services	PPRCR202A	6	3
		3	Master English/Chinese communication in printing industry	PPRCR301A	12	4
		3	Understand customer service requirements and methods	PPRCR302A	6	3
		3	Understand marketing skills	PPRCR303A	9	3

Printing	7. Customer/ Consumer relations	4	Master use of marketing skills	PPPRCR401A	12	6
		4	Master customer service skills	PPPRCR402A	6	4
		5	Master annual turnover and profit targets attainment	PPPRCR501A	12	6
		5	Formulate print product marketing strategies	106273L5	12	6
		5	Master customer printing contract and service plan writing	PPPRCR503A	12	6
		6	Establish long-term business partnership with customer	PPPRCR601A	15	6
		6	Develop new market for printing services	PPPRCR602A	15	6
	8. Information technology	1	Know office software operation	PPPRIT101A	6	3
		2	Understand office software application	PPPRIT201A	6	3
		3	Understand basic computer and network technology	PPPRIT301A	12	3
		3	Understand Internet	PPPRIT302A	6	3
		3	Understand basic programming and internet publishing techniques	106274L3	9	6
		4	Master use of computer and network	PPPRIT401A	6	3
		4	Know server services	PPPRIT403A	6	3
		4	Know use of database system	PPPRIT404A	6	3
		4	Know World Wide Web server programming techniques	PPPRIT405A	6	3
		4	Master the techniques for publishing digital audio-visual contents over the internet	106276L4	9	6
		5	Understand printing server service application	PPPRIT501A	12	3
		5	Understand use of database system on Internet	PPPRIT502A	12	3
5	Understand printing network planning	PPPRIT503A	12	3		

Printing		6	Build an online transaction system catering for printing business	106277L6	15	6
		6	Plan printing enterprise network	PPPRIT602A	15	6
		6	Develop server service	PPPRIT603A	15	6
	9.Quality Management	1	Know basic print quality management	PPPRQM101A	6	3
		2	Understand printing quality management	106278L2	12	3
		3	Understand print quality control and management	106279L3	12	6
		4	Master print quality control and management skills and application	PPPRQM401A	12	6
		5	Master skills for resolving and handling customer complaint concerning print quality	PPPRQM501A	12	6
		6	Set up print product total quality management system	PPPRQM601A	15	6
	10.Printing Machinery	1	Know the basic operation of printing machinery	106281L1	12	3
		1	Know basic printing machinery maintenance	PPPRPM102A	6	3
		2	Understand printing machinery maintenance	106282L2	12	3
		3	Understand workings of printing machinery	PPPRPM301A	12	3
		4	Master use of printing machinery	PPPRPM401A	12	6
	11.Colour Management	1	Know basic colour handling	PPPRCO101A	12	3
		2	Understand colour technology application	PPPRCO201A	9	3
		2	Know digital colour management	PPPRCO202A	9	3
		3	Understand digital colour management techniques	PPPRCO301A	12	3
		4	Master application of digital colour management	PPPRCO401A	12	6

Printing	12.Product Structure	1	Know broad categories of print product	PPRPS101A	6	3
		2	Understand composition of print products	PPRPS201A	6	3
		3	Understand composition of major paper print products	PPRPS301A	6	3
		4	Know structure of special print products	PPRPS401A	6	3
	13.Material Technology	1	Know the properties of major printing materials	106285L1	9	3
		2	Understand the applications of printing materials	106286L2	9	3
Publishing	14.Management	4	Know publishing	PPPUMN401A	12	3
		4	Know publishing related legislation	PPPUMN402A	12	3
		5	Understand publishing enterprise management	106306L5	12	6
		5	Understand publishing	PPPUMN502A	12	4
		5	Understand publishing related legislation	PPPUMN503A	12	4
		5	Set budget for publishing department	PPPUMN504A	12	4
		6	Set short term and long term goals for publishing enterprise	106309L6	12	6
		6	Set up publishing enterprise management system	PPPUMN602A	12	6
		6	Set balanced budget management system and operation code for publishing enterprise	PPPUMN603A	12	6

Publishing		6	Set departmental operation scheme, management structure and professional code for publishing enterprise	PPPUMN604A	12	6
	15.Editing	3	Know English usage	PPPUED301A	12	3
		3	Know modern Chinese	PPPUED302A	12	3
		3	Know classical Chinese	PPPUED303A	12	3
		3	Know information retrieval	PPPUED304A	9	3
		3	Know basic editing	PPPUED305A	12	3
		3	Know basic proofreading skills	PPPUED306A	9	3
		3	Know English-Chinese translation skills	PPPUED307A	9	3
		3	Know Chinese-English translation skills	PPPUED308A	9	3
		4	Master use of English	PPPUED401A	12	6
		4	Master editing of practical writing	PPPUED402A	12	6
		4	Master practical editing	PPPUED403A	12	6
		4	Master proofreading skills	PPPUED404A	9	6
		4	Exercise English-Chinese translation skills	PPPUED405A	12	6
		4	Exercise Chinese-English translation skills	PPPUED406A	12	6
		5	Plan publication project management	PPPUED501A	9	4
		5	Implement publication project management plan	PPPUED502A	9	4
		5	Carry out electronic/online publication processing and production	106310L5	12	6
		5	Execute AV processing and production	106312L5	12	6

Publishing		6	Develop personal idea and style of publishing	PPPUED601A	12	6
		6	Formulate publishing policy	PPPUED602A	12	6
		6	Formulate copyright management strategy	106315L6	12	6
		6	Set up copyright management scheme	PPPUED604A	12	6
	16.Art and Design	2	Know layout design skills	PPPUAD201A	12	3
		2	Know expression skills for illustration	PPPUAD202A	12	3
		2	Know multimedia design skills	106317L2	12	3
		3	Know printing processes	PPPUAD301A	12	3
		3	Understand book design skills	PPPUAD302A	12	4
		3	Understand cover design skills	PPPUAD303A	12	4
		3	Understand multimedia design skills	106318L3	12	6
		4	Master various design skills	106319L4	12	6
		4	Understand cultural features and the arts of different places	PPPUAD402A	12	4
		5	Develop brand series	PPPUAD501A	9	3
		5	Develop publishing design style	PPPUAD502A	9	3
	17.Production	3	Know basic processing flow for printing	106320L3	12	3
		4	Understand processing for printing	PPPUPD401A	12	4
4		Understand edit process skills	PPPUPD402A	12	4	

Publishing	18. Marketing	4	Understand reader psychology	PPPUMK401A	12	4
		4	Master book promotion strategy	PPPUMK402A	12	6
		5	Copyright trade	PPPUMK501A	12	4
		5	Formulate publishing market analysis plan	PPPUMK502A	12	4
		5	Formulate and implement publishing market plan	PPPUMK503A	12	4
	19. Distribution and Sales	3	Understand sales and marketing skills	106321L3	12	6
		3	Understand the distribution workflow	106322L3	12	6
		4	Book distribution	PPPUDS401A	12	6
		4	Price management	PPPUDS402A	12	6
		5	Set book publishing ratio according to category	PPPUDS501A	12	4
		5	Formulate sales plan	PPPUDS502A	12	4
	20. Logistics/ Warehousing/ Transportation	3	Warehouse management	PPPULO301A	12	6
		3	Fleet management	PPPULO302A	6	3
		3	Know flow of goods	PPPULO303A	6	3
		4	Transaction management	PPPULO401A	12	6
		4	Understand transportation operation	PPPULO402A	6	4

