VOCATIONAL TRAINING PROGRAM

COMPUTER GRAPHICS (DVS 5844)

Training Sector: Communications and Documentation

Québec

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Training Sector: Communications and Documentation

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Introduction to the Program

In vocational training, a program of study presents the competencies required to practise a given trade or occupation at entry level on the job market. The training provided allows students to acquire a degree of versatility that will be useful in their career and personal development.

A program is a coherent set of competencies to be developed. It outlines the knowledge and broad orientations to be favoured during training. The competencies correspond to the tasks of the trade or occupation or to activities related to work, vocational or personal life, depending on the case. Learning is acquired in a specific achievement context and targets the ability to act, succeed and evolve.

According to the *Education Act*,[1] "every program shall include compulsory objectives and contents and may include optional objectives and contents that shall be enriched or adapted according to the needs of students who receive the services." For behavioural competencies, the compulsory components include the statement of the competency, the elements of the competency, the achievement context and the performance criteria; for situational competencies, they include the corresponding components.

For information purposes, programs also provide a grid of competencies, educational aims, a summary of competency-related knowledge and know-how, and guidelines. They also specify the suggested duration of each competency. All optional components of a program may be enriched or adapted according to the needs of the students, the environment and the workplace.

Program Components

Program Goals

Program goals consist of the expected outcome at the end of training as well as a general description of a given trade or occupation. They also include the four general goals of vocational training.

Educational Aims

Educational aims are broad orientations to be favoured during training in order to help students acquire intellectual or motor skills, work habits or attitudes. Educational aims usually address important aspects of career and personal development that have not been explicitly included in the program goals or competencies. They serve to orient appropriate teaching strategies to contextualize students' learning, in keeping with the dimensions underlying the practice of a trade or occupation. They help guide educational institutions in implementing the program.

Competency

A competency is the ability to act, succeed and evolve in order to adequately perform tasks or activities related to one's working or personal life, based on an organized body of knowledge and skills from a variety of fields, perceptions, attitudes, etc.

A competency in vocational training can be defined in terms of a behaviour or a situation, and includes specific practical guidelines and requirements for learning.

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[1] Education Act (R.S.Q., c. I-13.3, s 461).

1. Behavioural Competency

A behavioural competency describes the actions and the results expected of the student. It consists of the following features:

- The *statement of the competency* is the result of the job analysis, the orientations and general goals of vocational training and other *determinants*.
- The *elements of the competency* correspond to essential details that are necessary in order to understand the competency *and* are expressed in terms of specific behaviours. They refer to the major steps involved in performing a task or to the main components of the competency.
- The *achievement context* corresponds to the situation in which the competency is exercised at entry-level on the job market. The achievement context attempts to recreate an actual work situation but does not describe a learning or evaluation situation.
- The *performance criteria* define the requirements to be respected. They may refer to elements of the competency or to the competency as a whole. When associated with a specific element, performance criteria are *used* to judge whether a competency has been acquired. When associated with the competency as a whole, the criteria describe the requirements for performing a task or activity and provide information on the expected level of performance or the overall quality of a product or service.

2. Situational Competency

A situational competency describes the situation in which students are placed to acquire learning, and allows for actions and results to vary from one student to another. It consists of the following features:

- The *statement of the competency* is the result of the job analysis, the orientations and general goals of vocational training and other determinants.
- The *elements of the competency* outline the essential aspects of the competency and ensure a better understanding of the competency with respect to the expected outcome. The elements of the competency are fundamental to the implementation of the learning situation.
- The *learning context* provides a broad outline of the learning situation designed to help the students develop the *required* competency. It is normally divided into three key phases of learning: information, participation and synthesis.
- The *instructional guidelines* provide reference points and means for teachers to ensure that learning takes place and that the context in which it occurs is always the same. These guidelines may include general principles or specific procedures.
- The *participation criteria* describe requirements that the students must meet when participating in learning activities. They focus on how the students take part in the activities rather than on the results obtained. Participation criteria *are* normally provided for each phase of the learning situation.

Competency-Related Knowledge and Know-How

Competency-related knowledge and know-how together with related guidelines are provided for information purposes. Competency-related knowledge and know-how define the essential and meaningful learning that students must acquire in order to apply and continue to develop the competency. They are in keeping with the job market and are accompanied by guidelines that provide information about the field of application, level of complexity and learning content. They generally encompass learning associated with knowledge, skills, strategies, attitudes, perceptions, etc.

Duration

The total duration of the program is compulsory and must be observed. It consists of teaching time, which includes time for the evaluation of learning and for enrichment or remedial activities, depending on the students' needs. The duration indicated for a given competency refers to the amount of time needed to develop the competency.

The amount of teaching time corresponds to the amount of time allotted to training, which is established during program development as the average amount of time needed to acquire a competency and evaluate learning. This duration is helpful in organizing training.

Credit

A credit is a unit used for expressing the quantitative value of each competency. One credit corresponds to 15 hours of training.

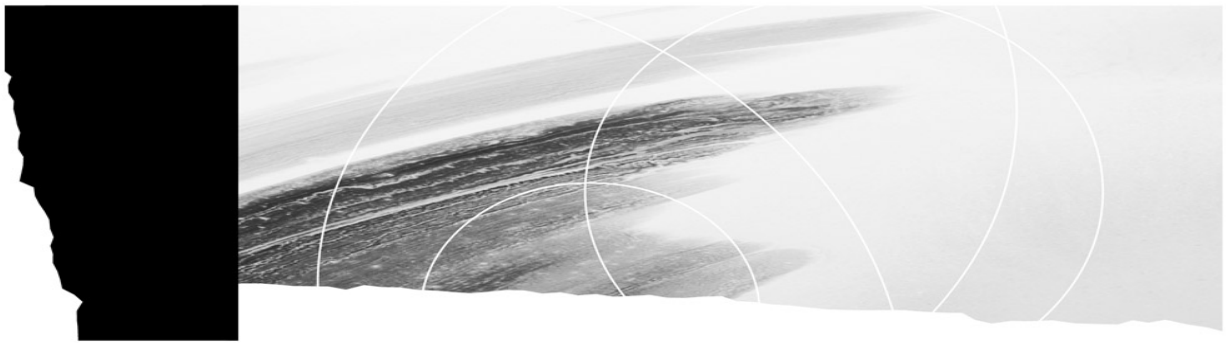
Aspects of Program Implementation

Program-Based Approach

The program-based approach is founded on a comprehensive view of a program of study and its components (e.g. goals, educational aims, competencies). It requires concerted action among all players involved, from the initial stages of program design and development, to program implementation and evaluation. It consists in ensuring that all of the actions and activities proposed are based on the same aims and take into account the same orientations. For students, the program-based approach makes training more meaningful as it presents learning as a coherent whole.

Competency-Based Approach

In vocational training, the competency-based approach is based on a teaching philosophy that is designed to help students mobilize their own individual sets of resources in order to act, succeed and evolve in different contexts, according to established performance levels with all the required knowledge and know-how (e.g. skills, strategies, attitudes, perceptions). The competency-based approach is carried out in situations that are relevant to the students' working life and personal life.



5844	**Computer Graphics**

Year of approval: 2013

Certification:	Diploma of Vocational Studies
Number of credits:	120 credits
Number of competencies:	22 competencies
Total duration:	1 800 hours

To be eligible for admission to the *Computer Graphics* program, candidates must meet one of the following requirements:

- Persons holding a Secondary School Diploma or a recognized equivalent are not subject to any additional requirements.

OR

- Persons who are at least 16 years of age on September 30 of the school year in which they begin their training must meet the following condition: they must have obtained Secondary IV credits in language of instruction, second language and mathematics in programs established by the Minister, or have been granted recognition of equivalent learning.

OR

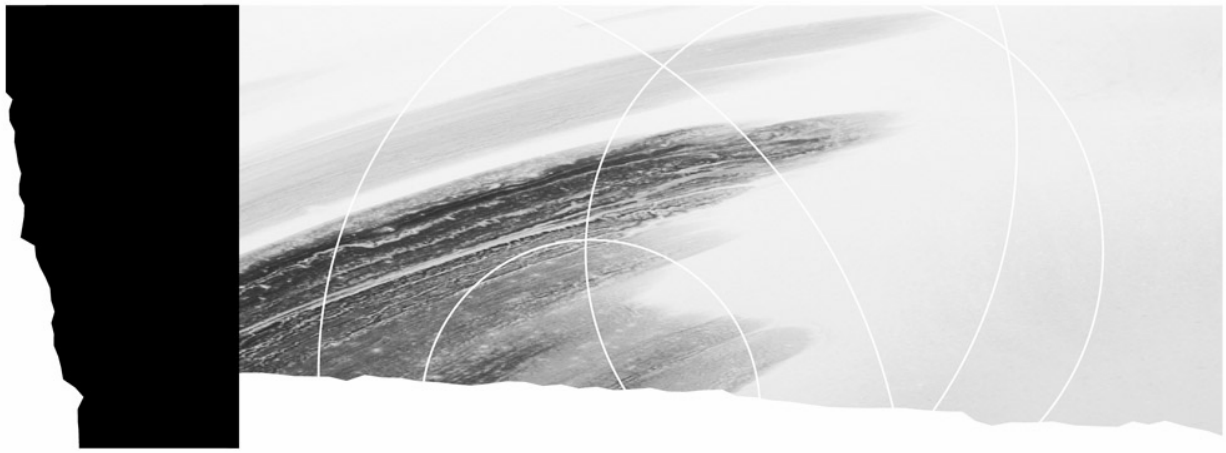
- Persons who are at least 18 years of age upon entry into the program must have the following functional prerequisites: the successful completion of the general development test, ENG 4103-1 and MTH 3053-2, or recognition of equivalent learning.

OR

- Persons who have obtained Secondary III credits in language of instruction, second language and mathematics in programs established by the Minister are required to pursue general education courses, concurrently with their vocational training, in order to obtain the Secondary IV credits they lack in language of instruction, second language and mathematics in programs established by the Minister.

The duration of the program is 1 800 hours, which includes 1020 hours spent on the specific competencies required to practise the trade or occupation and 780 hours on general, work-related competencies. The program of study is divided into 22 competencies which vary in length from 15 to 120 hours. The total hours allocated to the program include time devoted to teaching, evaluation of learning and enrichment or remedial activities.

Competency	Code	Number	Hours	Credits
Occupation and Training	965011	1	15	1
Managing a Computer Environment	965024	2	60	4
Vector Images	965037	3	105	7
Raster Images	965046	4	90	6
Requirements and Steps of the Graphic Communications Production Process	965056	5	90	6
Image Acquisition	965066	6	90	6
Colour Profile Management	965074	7	60	4
Composite Images for Standard Printing	965086	8	90	6
Composite Images for Visual Interfaces	965096	9	90	6
Tools for Proofreading English Texts	965104	10	60	4
Typographic Elements	965116	11	90	6
Simple Page Layouts for Print Documents	965127	12	105	7
Simple Page Layouts for Visual Interfaces	965137	13	105	7
Simple Page Layout Templates for Visual Interfaces	965146	14	90	6
Page Layout Templates for Print Documents	965156	15	90	6
Imposition and Finishing	965164	16	60	4
Complex Page Layouts for Print Documents	965177	17	105	7
Document Rasterization	965184	18	60	4
Preparing Documents for Digital Printing	965194	19	60	4
Preparing Documents for Standard Offset Printing	965205	20	75	5
Managing a Graphic Communications Microbusiness	965216	21	90	6
Workplace Integration	965228	22	120	8



Part I

Program Goals

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Grid of Competencies

Harmonization

Program Goals

The *Computer Graphics* program prepares students to practise the occupation of computer graphics designer.

Computer graphics designers work for companies specializing in the graphic communications, multimedia and corporate sectors, which include magazines, newspapers, packaging companies, manufacturers of other print products, Web site producers and electronic product manufacturers. Computer graphics designers can also be self-employed.

They produce page layout templates and create page layouts. Their work involves processing images and text, incorporating them into page layouts and preparing the layouts for printing and multimedia distribution while ensuring that they meet technical distribution standards.

They work alone or as part of a team with other computer graphics designers, art directors, graphic designers, project leaders, marketing personnel, writers, multimedia integrators, printers among others.

Their work environment is highly computerized. Computer graphics designers must use computers, specialized software and utilities, graphics tablets, archival storage, scanners, image setters among others.

The task requires curiosity, good problem-solving and adaptation skills, and an open attitude to new computer-based technologies. Computer graphics designers must be precise, be able to manage stress, and demonstrate great attention to detail.

The program goals of the *Computer Graphics* program are based on the general goals of vocational training. These goals are as follows:

- To help students develop effectiveness in the practice of a trade or occupation, that is:
  - to teach students to perform roles, functions, tasks and activities associated with the trade or occupation upon entry into the job market
  - to prepare students to progress satisfactorily on the job (which implies having the technical and technological knowledge and skills in such areas as communication, problem solving, decision making, ethics, health and safety)
- To help students integrate into the work force, that is:
  - to familiarize students with the job market in general, and with the specific context of their chosen trade or occupation
  - to familiarize students with their rights and responsibilities as workers
- To foster students' personal development and acquisition of occupational knowledge, skills, perceptions and attitudes, that is:
  - to help students develop their autonomy and ability to learn, and acquire effective work methods
  - to help students understand the principles underlying the techniques and the technology used in the trade or occupation
  - to help students develop self-expression, creativity, initiative and entrepreneurial spirit
  - to help students adopt the attitudes required to successfully practise the trade or occupation, and instill in them a sense of responsibility and a concern for excellence

- To promote job mobility, that is:
  - to help students develop positive attitudes toward change
  - to help students develop the means to manage their careers by familiarizing them with entrepreneurship

Educational Aims

The aim of the *Computer Graphics* program is to help students develop attitudes and behaviours that representatives from education and the field deem essential to the practice of the occupation:

- Promote the acquisition of general culture.
- Foster innovation and aesthetic values.
- Promote communication that is adapted to client needs and exchanges with various stakeholders, and that complies with professional ethics.
- Develop work methods and an ongoing concern for order, cleanliness and attention to detail.
- Develop problem-solving skills.
- Develop an ongoing concern for observing standards applicable to the graphic chain.

Statements of the Competencies

Determine their suitability for the occupation and the training process.

Manage a computer environment.

Create vector images.

Create raster images.

Determine their suitability to work in graphic communications production.

Acquire images.

Manage colour profiles.

Produce composite images for standard printing.

Produce composite images for visual interfaces.

Use tools to proofread texts written in English.

Manipulate typographic elements.

Create simple page layouts for print documents.

Create simple page layouts for visual interfaces.

Create simple page layout templates for visual interfaces.

Create page layout templates for print documents.

Prepare imposition proofs with finishing for standard formats.

Create complex page layouts for print documents.

Prepare rasterized documents.

Prepare documents for digital printing.

Prepare documents for standard offset printing.

Manage a graphic communications microbusiness.

Integrate into the workplace.

Grid of Competencies

The grid of competencies shows the relationship between general competencies, which correspond to work-related activities, and specific competencies, which are required to practise the particular trade or occupation, as well as the major steps in the work process.

The general competencies appear on the horizontal axis and the specific competencies, on the vertical axis. The symbol (○) indicates a correlation between a general and a specific competency. The symbol (△) indicates a correlation between a specific competency and a step in the work process. Shaded symbols indicate that these relationships have been taken into account in the acquisition of specific competencies. The logic used in constructing the grid influences the course sequence. Generally speaking, this sequence follows a logical progression in terms of the complexity of the learning involved and the development of the students' autonomy. The vertical axis presents the specific competencies in the order in which they should be acquired and serves as a point of departure for determining how all of the competencies will be taught.

GRID OF COMPETENCIES

COMPUTER GRAPHICS

SPECIFIC COMPETENCIES	Competency number	Type of competency	Duration (in hours)	GENERAL COMPETENCIES: Determine their suitability for the occupation and training process	Manage a computer environment	Create vector images	Create raster images	Determine their suitability to work in graphic communications production	Acquire images	Manage colour profiles	Use tools to proofread texts written in English	Manipulate typographic elements	Prepare imposition proofs with finishing for standard formats	Prepare rasterized documents	WORK PROCESS: Analyze the request	Create content elements	Assemble content elements	Have the computer graphics document approved
Competency number				1	2	3	4	5	6	7	10	11	16	18				
Type of Competency				S	B	B	B	S	B	B	B	B	B	B				
Duration (in hours)				15	60	105	90	90	90	60	60	90	60	60				
Produce composite images for standard printing	8	B	90	○	●	●	●	●	●	●					▲	▲	▲	▲
Produce composite images for visual interfaces	9	B	90	○	●	●	●	●	●	●					▲	▲	▲	▲
Create simple page layouts for print documents	12	B	105	○	●	○	○	●	○	○	●	●			▲	△	▲	▲
Create simple page layouts for visual interfaces	13	B	105	○	●	○	○	●	○	○	●	●			▲	△	▲	▲
Create simple page layout templates for visual interfaces	14	B	90	○	●	●	●	●	●	○	○	●			▲	▲	▲	▲
Create page layout templates for print documents	15	B	90	○	●	●	●	●	●	○	○	●	○		▲	▲	▲	▲
Create complex page layouts for print documents	17	B	105	○	●	○	○	●	○	○	●	●	●		▲	△	▲	▲
Prepare documents for digital printing	19	B	60	○	●			●		●			●	●	▲		▲	△
Prepare documernts for standard offset printing	20	B	75	○	●			●		●			●	●	▲		▲	△
Manage a graphic communications microbusiness	21	B	90	○	●	○	○	●	○	○	○	○			△	△	▲	△
Integrate into the workplace	22	S	120	●	●	○	○	●	○	○	○	○	○	○	△	△	△	△

Harmonization

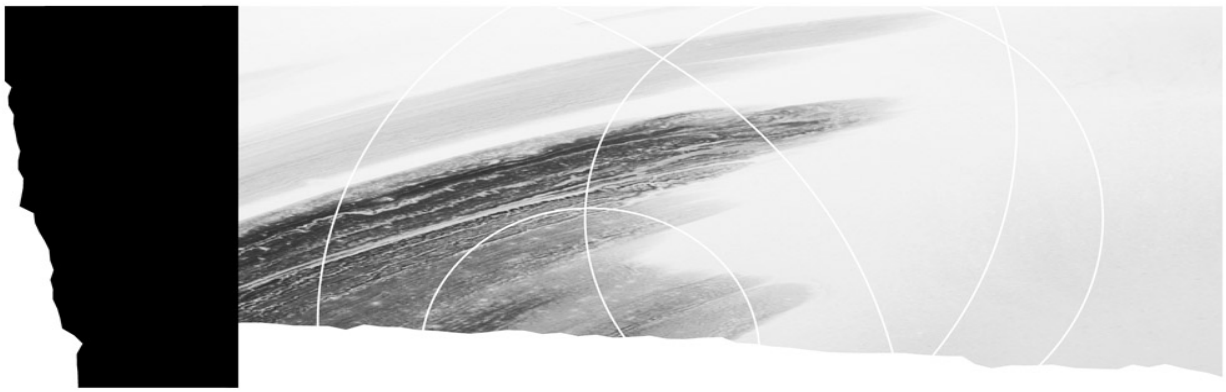
The Ministère de l'Éducation, du Loisir et du Sport harmonizes its vocational and technical programs by establishing similarities and continuity between secondary- and college-level programs within a particular sector or between sectors in order to avoid overlap in program offerings, to recognize prior learning and to optimize the students' progress.

Harmonization establishes consistency between training programs and is especially important in ensuring that the tasks of a trade or occupation are clearly identified and described. Harmonization makes it possible to identify tasks requiring competencies that are common to more than one program. Even if there are no common competencies, training programs are still harmonized.

Harmonization is said to be "inter-level" when it focuses on training programs at different levels, "intra-level" when it focuses on programs within the same educational level, and "inter-sector" when carried out between programs in various sectors.

An important aspect of harmonization is that it allows the common features of competencies to be identified and updated as needed. Common competencies are those that are shared by more than one program; once acquired in one program, they can be recognized as having been acquired in another. Competencies with exactly the same statement and elements are said to be identical. Common competencies that are not identical but have enough similarities to be of equal value are said to be equivalent.

Harmonization of the *Computer Graphics* program revealed some common competencies with other programs. Information concerning the harmonization process and its results is presented in the document entitled *Tableaux d'harmonisation, Infographie.*



Part II

Program Competencies

Occupation and Training	Code: 965011

Competency 1 Duration 15 hours Credits 1

Situational Competency

Statement of the Competency

Determine their suitability for the occupation and the training process.

Elements of the Competency

- Become familiar with the reality of the occupation.
- Understand the program of study.
- Confirm their career choice.

Learning Context

Information Phase

- Learning about the job market in computer graphics.
- Learning about the nature and requirements of the occupation.
- Learning about the training process.
- Sharing their initial reactions to the occupation and the training process.

Participation Phase

- Presenting the information gathered from visits to companies and meetings with computer graphics specialists, and discussing their perception of the occupation: advantages, disadvantages, requirements.
- Discussing the skills, aptitudes and knowledge needed to practise the occupation.
- Discussing the program of study as it relates to the occupation.

Synthesis Phase

- Producing a report in which they:
  – sum up their aptitudes and interests with regard to the occupation
  – assess their career choice by comparing different aspects and requirements of the occupation with their preferences, aptitudes and interests

Instructional Guidelines

- Create a climate in which everyone can express themselves freely.
- Make available appropriate documentation.
- Organize a meeting with computer graphics specialists or a visit to a company.
- Provide students with the means to assess their career choice objectively.
- Encourage students to participate actively in the proposed activities.

Participation Criteria

Information Phase

- Gather information on most of the topics to be covered.
- Present their views of the occupation at a group meeting, making connections with the information gathered.

Participation Phase

- Participate actively in the activities organized.
- Adequately express their views on the program of study at a group meeting.
- Give their opinion on some of the requirements to be met in order to practise the occupation.

Synthesis Phase

- Produce a report in which they:
  - sum up their preferences and interests
  - explain their career choice, clearly making the required connections

Suggestions for Competency-Related Knowledge and Know-How

The following is a summary of the knowledge, skills, strategies, attitudes and perceptions related to each phase of the learning context, along with the attendant guidelines.

Information Phase

• Learn about the job market in computer graphics.	Job prospects, working conditions, hiring criteria and remuneration Potential for promotion and transfer
• Learn about the nature and requirements of the occupation.	Types of tasks, standards, risks to health and safety, etc.
• Learn about the training process.	Program of study, evaluation, certification, volume of work required, etc. Rules, student services, schedule, etc.
• Share their initial reactions to the occupation and the training process.	Presentation methods: notes, summaries and presentations Rules governing group discussions: participation, right to speak, respect for others, etc. Connection between program competencies and tasks, operations, knowledge and skills

Participation Phase

• Present the information gathered from visits to companies and meetings with computer graphics specialists, and discuss their perception of the occupation: advantages, disadvantages, requirements.	Presentation methods: notes, summaries, presentations Rules governing group discussions: participation, right to speak, respect for others, etc.

Occupation and Training	Code: 965011
• Discuss the skills, aptitudes and knowledge required to practise the occupation.	Definitions: skills, aptitudes and knowledge Psychomotor skills and dexterity required to practise the occupation Aptitudes required to work in computer graphics
• Discuss the program of study as it relates to the occupation.	Connections between the competencies and the requirements of the occupation
Synthesis Phase	
• Produce a report in which they: – sum up their aptitudes and interests with regard to the occupation – assess their career choice by comparing different aspects and requirements of the occupation with their preferences, aptitudes and interests	Description of the report's content, the terms to be used, the content and the rules of presentation Definition of aptitudes and interests, importance and consequences of career choice

Managing a Computer Environment	Code: 965024

Competency 2 Duration 60 hours Credits 4

Behavioural Competency

Statement of the Competency	**Achievement Context**
Manage a computer environment.	• For a variety of operating systems • Using software, peripherals and tutorials
Elements of the Competency	**Performance Criteria**
1. Install computer peripherals.	• Accurate distinction between the different pieces of hardware that make up a computer station • Appropriate consultation of the user guide • Compliance with instructions for connecting peripherals
2. Make sure the workstation is set up ergonomically.	• Recognition of the health and safety risks associated with computer stations • Appropriate use of preventive measures
3. Install and update software.	• Observance of the procedure for installing or updating software • Appropriate verification of installation • Correct setting of preferences • Appropriate use of operating system
4. Create local and network folders.	• Proper organization of the hierarchy of folders • Accurate assignment of access rights to folders • Observance of rules for naming folders
5. Save files.	• Appropriate choice of storage medium • Accurate assignment of access rights to files • Observance of rules for naming files
6. Exchange and classify files.	• Appropriate choice of file format • Appropriate choice and use of a communication protocol • Appropriate use of browsers
7. Troubleshoot minor software problems.	• Proper application of a troubleshooting method • Appropriate use of diagnostic software • Proper application of maintenance and troubleshooting procedures • Appropriate stress management

	For the competency as a whole: • Appropriate consultation of tutorials • Observance of classification rules

Suggestions for Competency-Related Knowledge and Know-How

The following is a summary of the knowledge related to each element, along with the attendant guidelines.

1. Install computer peripherals.

• Identify the hardware components of a computer station.	Internal components of a computer: microprocessor, hard disk, graphics card, random access memory, etc. External components of a computer station: monitor, mouse, keyboard and peripherals
• Connect peripherals.	Consultation of the user guide (online and paper copy) Types of peripherals: scanners, printers, hard disks, graphics tablets, etc. Types of connectors: Ethernet, USB, VGA, etc. Precautions to take when handling peripherals and connectors

2. Make sure the workstation is set up ergonomically.

• Recognize the health and safety risks associated with computer stations.	Physical characteristics of a functional, ergonomic workspace: lighting, distance and placement of the screen Risks associated with workstation layout: handling of devices connected to an electricity supply, type of lighting and placement of chair, work table, screen, keyboard, mouse, etc. Posture-related risks
• Take preventive measures.	Adaptation to the workstation: chair height, angle of forearms, position of feet and distance to screen Maintenance of comfortable angles Proper lighting (ambient lighting and supplementary lighting) Ergonomic posture and regular breaks Stretching exercises (before, during and after work)

3. Install and update software.	
• Apply procedures for installing and updating software.	Erasing, initializing and partitioning of the hard disk Choice and selection of installation settings Types of software: operating system, applications and utilities Types of installation: standard or customized Software codes and serial numbers Use of menus and main functions Importance of updating Uninstall procedures Computer viruses and antivirus software Verification of installation
• Set preferences	Types of operating system preferences: personal, network, hardware and account Display: icons, buttons, lists, etc. Creation of aliases and shortcuts Customizing of icons and windows Identification of printers available on the network
4. Create local and network folders.	Types of folders: library, system, applications, pictures, videos, personal, etc. Creation and location of folder files Creation of shared links Folder access: sharing and permission Folder naming rules: project, date, typology, etc.
5. Save files.	Types of saving: internal, external, automatic, online Types of storage media: hard disk, optical disk, server, etc. File access: sharing and permission File naming rules: project, date, typology, etc. Use of compression software
6. Exchange and classify files.	
• Prepare files for sending.	Choice of file format Choice and use of communication protocols
• Manage transmission online or by email.	Receipt of mail Decompression and compression of attachments and files to send Use of file transfer applications

7. Troubleshoot minor software problems.

• Identify the causes of problems and apply solutions.	Proper application of a troubleshooting method: use of diagnostic software, forming of hypotheses and identification of potential causes Solutions: uninstall and install software, erase preferences Emergency start-up procedures and use of keyboard shortcuts Maintenance procedure: updates and conflict-resolution software
• Manage personal stress.	Identification of sources of stress related to computer problems and connection with lack of knowledge, new features and software updates

Vector Images	Code: 965037

Competency 3 Duration 105 hours Credits 7

Behavioural Competency

Statement of the Competency	**Achievement Context**
Create vector images.	• For print documents and visual interfaces • Given digital and hand-drawn images • Using drawing and modelling software • Using graphics tablets • Given printing and electronic distribution standards
Elements of the Competency	**Performance Criteria**
1. Set software functions.	• Correct determination of software settings • Proper customizing of the graphics interface • Software performance adapted to the task and to the printing or electronic distribution standards
2. Define the document's properties.	• Correct determination of dimensions • Appropriate choice of colour mode • Appropriate choice of colour profile • Appropriate setting of resolution • Observance of printing or electronic distribution standards
3. Draw typographic elements, shapes and patterns.	• Appropriate use of a model • Correct determination of scale • Appropriate choice of graphic style • Appropriate use and adjustment of software libraries • Accuracy of the drawing
4. Convert vector objects.	• Appropriate choice and use of visual effects • Appropriate selection and masking of objects • Functional automation of a task • Observance of proportions • Observance of legibility criteria
5. Assess the quality of the images.	• Critical and constructive assessment of their work • Identification of appropriate ways of improving their creative process

6. Optimize and archive the file.	• Proper organization of layers and boxes • Absence of unnecessary elements • Appropriate choice of file format • Proper saving of file
	For the competency as a whole:
	• Appropriate choice and use of software tools • Choice of harmonious colours • Proper creation of layers • Appropriate use of software • Observance of rules of composition • Demonstration of creativity

Suggestions for Competency-Related Knowledge and Know-How

The following is a summary of the knowledge related to each element, along with the attendant guidelines.

1. Set software functions.	
• Identify the characteristics of vector graphic software.	Principles of Bezier curves Features of vector graphic software: insertion points, lines, tangents and geometric shapes
• Customize the graphics interface and the software.	Creation and management of preferences: tolerance, grids and guides, increment size, etc. Display options Control panels Functions of different tools Use of measurement scales Space allocation on work disks Keyboard shortcut settings and menu adjustments
2. Define the document's properties.	
• Determine the size.	Choice of units of measure Determination of proportions based on resolution Canvas size Creation of guidelines and perspective grids Margins and bleeds
• Choose the colour mode and colour profile.	Setting of colour mode and colour profile according to distribution or print standards
• Set resolution, where necessary.	Resolution: number of pixels in the image Choice of resolution based on distribution or print standards Potential for expanding or shrinking

3. Draw typographic elements, shapes and patterns.

• Create layers.	Number of layers Determination of layer options Distribution of work between layers Assignment of titles and classification of layers
• Use a template.	Preparation of a template layer Setting of display mode (paths and preview) Use of multi-window working method Use of guidelines, perspective grids and guides to ensure scale reproduction
• Determine the scale.	Setting of measurement scale Use of grids and guidelines
• Choose a graphic style.	Graphic styles: solid, shaded, hatched, etc. Choice of style based on message and expression
• Draw.	Typographic elements: letters, symbols and icons Geometric shapes: closed and open Patterns: textures, decorations and mosaics Lines: curved and straight Position and size of elements Line connections Creation, placement and assembly of software-generated shapes Use of colour sampling Use of keyboard shortcuts Use of masks Use of control panels Selection, grouping and alignment techniques Use or creation of a library of colours, hues, shapes, textures and frames

4. Convert vector objects.

• Apply visual effects.	Transformation tools: scale, rotate, vertical, horizontal or diagonal symmetry, etc. Use of complex effects: distortion, blur, artistic, etc. Vector decomposition Types of perspective Object selection and masking Shade and light interpretation using hues, shades and gradients
• Automate a task.	Creation of automatic converters or use of reference automation

5. Assess the quality of the images.

• Print the images.	Choice of printer, format, orientation and position Choice of printer colour profile and rendering mode
• Examine the image in a critical, constructive way.	Assessment criteria: structure, composition, reading sequence, hierarchical mode, colour harmony, legibility and proportion Identification of ways of improving their creative process

6. Optimize and archive the file.

• Organize layers and paths.	Assignment of names Creation of layer groups and subgroups Association of typographic elements, shapes and patterns with layers Use of selection colours for layers
• Eliminate unnecessary elements.	Cleanup of isolated points, invisible objects and empty text boxes Verification of unnecessary elements both on and off the canvas
• Save the file.	Conversion of a vector image into a raster image Setting of file format according to how the image will be distributed or published Verification of previews Saving of native file

Raster Images	Code: 965046

Competency 4 Duration 90 hours Credits 6

Behavioural Competency

Statement of the Competency	Achievement Context
Create raster images.	• For print documents and visual interfaces • Given digital and hand-drawn images • Using drawing and modelling software • Using graphics tablets • Given printing and electronic distribution standards

Elements of the Competency	Performance Criteria
1. Set software functions.	• Correct determination of software settings • Proper customizing of the graphics interface • Software performance adapted to the task and to the printing or electronic distribution standards
2. Define the document's properties.	• Correct determination of dimensions • Appropriate choice of colour mode • Appropriate choice of colour profile • Appropriate setting of resolution • Observance of printing or electronic distribution standards
3. Draw shapes and patterns.	• Appropriate use of a model • Correct determination of scale • Appropriate choice of graphic style • Appropriate use and adjustment of software libraries • Accuracy of the drawing
4. Retouch the images.	• Appropriate choice and use of visual effects • Appropriate selection, clipping and masking of images • Appropriate adjustment of hues and contrasts • Functional automation of a task • Observance of proportions • Observance of legibility criteria
5. Assess the quality of the images.	• Correct setting of printing parameters • Critical and constructive assessment of their work • Identification of appropriate ways of improving their creative process

6. Optimize and archive the file.	• Proper organization of layers, channels and paths • Absence of unnecessary elements • Appropriate choice of file format • Proper saving of file
	For the competency as a whole:
	• Appropriate choice and use of software tools • Choice of harmonious colours • Proper creation of layers • Appropriate use of software • Observance of rules of composition • Demonstration of creativity

Suggestions for Competency-Related Knowledge and Know-How

The following is a summary of the knowledge related to each element, along with the attendant guidelines.

1. Set software functions.	
• Customize the graphics interface and the software.	Creation and management of preferences: tolerance, grids and guides, increment size, etc. Display options Control panels Functions of different tools Use of measurement scales Cache and history settings Space allocation on work disks Keyboard shortcut settings and menu adjustments
2. Define the document's properties.	
• Determine the dimensions.	Choice of units of measure Determination of proportions based on resolution Canvas size Creation of guidelines and perspective grids Margins and bleeds
• Choose the colour mode and colour profile.	Setting of colour mode and colour profile according to distribution or print standards
• Set the resolution.	Adjust image size through resampling
3. Draw shapes and patterns.	
• Create layers.	Number of layers Determination of layer options Distribution of work between layers Assignment of titles and classification of layers

• Use a template.	Preparation of a template layer Use of guidelines, perspective grids and guides to ensure scale reproduction
• Determine the scale.	Setting of measurement scale Use of grids and guidelines
• Choose a graphic style.	Similar or same type of graphic processing Graphic styles: solid, shaded, hatched, etc. Choice of style based on message and expression
• Draw.	Geometric shapes: closed and open Patterns: textures and decorations Position and size of elements Creation, placement and assembly of software-generated shapes Use of colour sampling Use of keyboard shortcuts Use of masks Use of control panels Selection, grouping and alignment techniques Use or creation of a library of colours, shades, shapes, textures and frames
4. Retouch the images.	
• Apply visual effects.	Use of selection, clipping, moving and transformation tools Use of shading, cloning, chroma keying, masking, fill tools, etc. Use of filters
• Adjust hue and contrast settings.	Brightness, contrast, colour balance and other settings Use of colour histogram curves and levels
• Automate a task.	Creation of automatic converters or use of reference automation
5. Assess the quality of the images.	
• Print the images.	Choice of printer, format, orientation and position Choice of printer colour profile and rendering mode
• Examine the image in a critical and constructive way.	Assessment criteria: structure, composition, reading sequence, hierarchical mode, colour harmony, legibility and proportion Identification of ways of improving their creative process

6. Optimize and archive the file.

• Organize layers, channels and paths.	Assignment of names Creation of layer groups and subgroups Association of shapes and patterns with layers Use of selection colours for layers
• Eliminate unnecessary elements.	Verification of unnecessary elements on the canvas
• Save the file.	Setting of file format according to how the image will be distributed or published Verification of previews Saving of native file

Requirements and Steps of the Graphic Communications Production Process	Code: 965056

Competency 5 Duration 90 hours Credits 6

Situational Competency

Statement of the Competency

Determine their suitability to work in graphic communications production.

Elements of the Competency

- Understand graphic communications products and requirements.
- Try out document production techniques in computer graphics.
- Assess their ability to meet the requirements of document production in computer graphics.

Learning Context

Information Phase

- Identifying graphic communications products with different characteristics.
- Learning about the requirements of graphic communications product design and the target audiences for the products.
- Becoming familiar with the requirements relating to:
  - the printing of graphic communications products
  - electronic distribution of graphic communications products
- Taking part in a group discussion to identify foreseeable problems in using different production techniques.

Participation Phase

- Based on scenarios representative of situations in the workplace:
  - trying out different production techniques for image structure, colour harmony, graphic and typographic elements, and visual trajectory
  - producing drafts and displays using different print media and interfaces
- Assessing the quality of computer graphics documents by identifying their strengths and weaknesses.
- Taking part in role-play scenarios involving hypothetical clients.

Synthesis Phase

- Taking part in a group discussion on the requirements of computer graphics production and the problems encountered.
- Making connections between production techniques and graphic communications documents.
- Trying to use terminology specific to the occupation.

Requirements and Steps of the Graphic Communications Production Process	Code:	965056

Instructional Guidelines

- Create a climate of trust and openness.
- Make available the necessary graphic communications products and resources.
- Promote discussion.
- Decide in advance on the time allowed for each activity, and inform the students.
- Propose a variety of experimental projects so that students can compare different production requirements.
- Make sure the projects are representative of situations in the workplace.
- Provide the support required for the students to carry out the activities.
- Make sure all the students have an opportunity to take part in a simulated situation.
- Provide students with support during evaluation.

Participation Criteria

Information Phase

- Gather information on the topics to be covered.
- Take part in the group discussion on foreseeable problems with the use of different production techniques.

Participation Phase

- Carry out the experimental projects.
- Identify the strengths and weaknesses of computer graphics documents.
- Use the computer tools and other resources.

Synthesis Phase

- Take part in the group discussion on the requirements of computer graphics production and the problems encountered.
- Compare graphic communications documents with production techniques.
- Use terminology specific to the occupation.

Suggestions for Competency-Related Knowledge and Know-How

The following is a summary of the knowledge, skills, strategies, attitudes and perceptions related to each phase of the learning context, along with the attendant guidelines.

Information Phase

• Identify graphic communications products with different characteristics.	Meaning of pictograms, icons and visual identities Functions of corporate documents, publishing, packaging, kinetic design and advertising campaigns Target audiences, objectives and communication focus Principles of visual communication, reading sequences and psychology of colours

Requirements and Steps of the Graphic Communications Production Process	Code: 965056
• Learn about the requirements of graphic communications product design and the target audiences for the products.	Visual and technical requirements relating to different types of images and graphic elements Visual and technical requirements relating to development, design, prototype and campaign proposal stages
• Become familiar with the requirements relating to the printing of graphic communications products.	Visual and technical requirements relating to templates and page layouts Production and usage requirements for proofs, plates, inks, varnish and substrates Visual and technical requirements for preparing documents for digital and offset printing Features of other printing processes: screen printing, flexographic printing, hexachrome offset printing Visual and technical requirements of finishing processes
• Become familiar with the requirements relating to electronic distribution of graphic communications products.	Visual and technical requirements of information architecture, scripting and ergonomics of visual interfaces Technical requirements of bandwidth, search engine optimization, resolution, display format, video, as well as platform and application compatibility Visual and technical requirements of templates and page layouts Visual and technical requirements for preparing documents for visual interfaces
• Take part in a group discussion to identify foreseeable problems in using different production techniques.	Rules governing group discussions: participation, right to speak, respect for others, etc.
Participation Phase	
• Based on scenarios representative of situations in the workplace: – try out different production techniques for image structure, colour harmony, graphic and typographic elements, and visual trajectory – produce drafts and displays using different print media and interfaces	Languages of the visual arts and graphic design: textures, patterns, shades, light, shapes, volumes, etc. Colours: complementary relationship, darkened and lightened colours, harmony, dominant-tonic relationship, etc. Use of tools, materials and media Composition techniques: balance, dynamism, harmony, highlight, etc.
• Assess the quality of computer graphics documents by identifying their strengths and weaknesses.	See above

• Take part in role-play scenarios involving hypothetical clients.	Importance of personal appearance Presentation of services or products Communication process Elements that enhance communication: self-confidence, open-mindedness, attitude toward others, respect for others, etc. Attitudes conducive to communication Importance of spoken English and discretion Level of language and tone adapted to the situation and to the specific client
Synthesis Phase	
• Take part in a group discussion on the requirements of computer graphics production and the problems encountered.	See above
• Make connections between production techniques and graphic communications documents.	See above
• Try to use terminology specific to the occupation.	Importance of correct terminology in the workplace and with clients

Image Acquisition	Code: 965066

Competency 6 Duration 90 hours Credits 6

Behavioural Competency

Statement of the Competency	**Achievement Context**
Acquire images.	• Given a request • Using image banks • Using scanners • Using cameras and accessories: lenses, light sources, a photographic table and backgrounds, etc. • Using software for navigation, acquisition and archiving • Using a specialized computer station
Elements of the Competency	**Performance Criteria**
1. Analyze the request.	• Identification of the topic or theme of the request • Correct determination of the technical and aesthetic characteristics of the images to acquire • Correct determination of acquisition method
2. Search for visual elements.	• Appropriate choice and use of reference sources • Appropriate choice of keywords • Effective use of search engines • Relevance of search results
3. Scan visual elements.	• Accurate conversion of units of measure • Accurate distinction of the technical characteristics of the original element • Appropriate choice of type of scanning • Precise positioning of original • Correct setting of colour mode, resolution and contrast • Correct setting of descreening options • Correct determination of scale

4. Take digital photographs.	• Appropriate choice of camera and accessories • Appropriate choice of location and background elements • Proper positioning of the elements to photograph • Proper adjustment of lighting • Proper exploration of focal length and point of view • Proper exploration of focus and depth of field adjustments • Proper exploration of lens aperture, shutter speed and light sensor adjustments • Observance of rules of composition • Demonstration of creativity
5. Archive the images.	• Appropriate documentation on the images • Appropriate choice of file formats • Proper classification of files
	For the competency as a whole: • Appropriate use of software • Observance of rules governing confidentiality of information, permissions and copyright assignment

Suggestions for Competency-Related Knowledge and Know-How

The following is a summary of the knowledge related to each element, along with the attendant guidelines.

1. Analyze the request.

• Identify the topic or theme of the request.	Major elements of a topic or theme: context, message, ambiance, etc. Emphasis on the topic or theme
• Determine the technical and aesthetic characteristics of the images to acquire.	Technical characteristics: resolution, colour mode, file format, etc. Aesthetic characteristics: colour harmony, composition, reading sequence, etc.
• Determine the acquisition method to use.	Search of image banks, scanning or taking of photographs

2. Search for visual elements.

• Choose reference sources.	Disk-based and online image banks Image resolution and right of use

• Carry out a search.	Use of browsers Search and keywords: logical operators, combinations, exclusions, text strings Metadata provided by the browser Choice of images based on the request
3. Scan visual elements.	
• Choose the type of scanning required.	Choice of scanning type based on the characteristics of the original element: reproduction, photograph or three-dimensional object
• Position the original.	Use of acetates or light boxes Use of framing templates and sides of the scanner window
• Set colour mode, resolution and contrast.	Colour mode: CMYK, LAB or RGB Adjustment of input resolution to final image format Number of bits per colour and grey tone level Transparency and opacity Brightness, contrast, colour balance settings, etc. Use of colour histogram curves and levels
• Set descreening options.	Screen distance and use of descreening tool Setting of screen value based on screen ruler
• Determine the scale.	Setting of enlargement or reduction values based on image input resolution and reframing Use of the rule of thirds and proportional tools Conversion of units of measure
4. Take digital photographs.	
• Choose the camera and accessories.	Camera models: 35 mm reflex with interchangeable lenses, 2¼ x 2¼, etc. Types of lenses: normal, wide-angle, telephoto, etc. Accessories: hood, filters, tripod, shooting table and background Lighting: light meters, portable flash and reflectors
• Choose and prepare the elements to photograph.	Location, background elements and staging Accessories required for the set-up Placement of elements based on rules of composition
• Set up the lighting.	Lighting and elimination of shadows Creation of low-key and high-key lighting Use of light sources and reflectors

• Explore photography techniques.	Overhead and low-angle shots, close-ups and wide shots Use of focal length Automatic and manual focusing using a high-contrast area of the subject Variation of the depth of field using aperture and shutter speed Variation of the shutter speed Changes to object placement Creation of visual effects using different exposure times Noise derived from ISO
• Develop creativity.	Rules of composition: use of different angles, format, light and visual space Use of methods that highlight the object

5. Archive the images.

• Document the images.	Image format and mode Use of metadata Keywords, location, date, etc.
• Choose the file format.	Procedure used to transfer the images to the computer Types of formats: RAW, EPS, JPEG, TIFF, etc. Proportion, resolution and compression
• Classify the files.	Use of folders to classify the images

Colour Profile Management	Code: 965074

Competency 7 Duration 60 hours Credits 4

Behavioural Competency

Statement of the Competency	**Achievement Context**
Manage colour profiles.	• For print documents and visual interfaces • In light-controlled environments • Using projection devices: projectors and screens of different sizes • Using documentation on graphic chain devices and reference charts • Using colourimeters • Using colour management software • Given printing and electronic distribution standards
Elements of the Competency	**Performance Criteria**
1. Characterize the colours of projection devices.	• Appropriate use of a colourimeter • Accurate interpretation of the technical characteristics of projection devices • Accurate determination of gamma, brightness, colours and colour temperature
2. Create colour profiles for the projection devices.	• Accurate interpretation of colour data • Rendered quality of greyscale, shadow and highlight detail, saturation and colour for projection devices • Appropriate validation of colour profiles
3. Synchronize the colour profiles in the graphic chain.	• Accurate interpretation of the technical characteristics of devices in the graphic chain • Appropriate choice of colour profiles • Proper validation of profile correspondences • Verification to ensure that the colour profiles have been applied by the operating system and software
	For the competency as a whole: • Appropriate use of colour management software • Appropriate use of reference charts • Observance of printing and electronic distribution standards

Suggestions for Competency-Related Knowledge and Know-How

The following is a summary of the knowledge related to each element, along with the attendant guidelines.

1. Characterize the colours of projection devices.

• Interpret the technical characteristics of projection devices.	Principles of the additive method of colour reproduction Factors influencing how monitors and projection devices render colour Correction settings with projection device utilities, specialist software and colourimeters
• Take measurements using the colourimeter.	Connection and disconnection procedures Device warm-up times Use of the projection device probe in a controlled environment Definitions: gamma, brightness, colour and colour temperature

2. Create colour profiles for the projection devices.

• Interpret colour data.	Comparison of measurements with greyscale or colour calibrated images Definitions: greyscale, shadow and highlight detail, saturation and colour
• Define and install colour profiles.	Application of manufacturer's standards, saving and location of new colour profile Verification to ensure that the new colour profile is applied by the operating system

3. Synchronize the colour profiles in the graphic chain.

• Interpret the technical characteristics of devices in the graphic chain.	Colour reproduction using the subtractive method Limitations and requirements of laser printers, ink-jet printers, and digital and offset printers
• Choose and validate colour profiles.	Characteristics of generic RGB colour profiles (gamma, white point) Characteristics of generic CMYK colour profiles (tonal range, total ink coverage, conditions of use, physical limitations) Use of calibrated printing Validation of colour profile correspondence Verification to ensure that the colour profiles have been applied by the operating system and software

Composite Images for Standard Printing	Code: 965086

Competency 8 Duration 90 hours Credits 6

Behavioural Competency

Statement of the Competency	**Achievement Context**
Produce composite images for standard printing.	• Given a request • Using image banks, cameras, scanners and graphics tablets • Using utility software and vector and raster image processing software • Given printing standards
Elements of the Competency	**Performance Criteria**
1. Analyze the request.	• Accurate analysis of the concept or purpose • Accurate analysis of the target audience • Accurate analysis of the characteristics of the destination document • Accurate analysis of the production parameters and print settings • Accurate determination of the type of images to find or create
2. Search for images.	• Appropriate consultation of image banks • Choice of images based on project specifications
3. Create the missing images.	• Relevance and quality of photographs taken or images scanned • Proper creation of vector or raster images • Choice of harmonious colours
4. Process the images.	• Appropriate choice of colour profiles • Proper adjustment of resolution • Quality and precision of retouching • Relevance of image resizing • Proper cropping of images • Adequate correction of noise • Relevance of colour adjustments • Proper adjustment of sharpness • Proper adjustment of image contrast and gradation

5. Produce the photomontage.	• Harmonious blending of images • Effectiveness of special effects and illusions • Proper sharpening or fading of details • Effective management of the document structure • Observance of rules governing image composition • Originality and aesthetic quality of the photomontage
6. Have the photomontage approved.	• Proper presentation of the photomontage • Relevance of corrections • Observance of deadline
7. Adjust the photomontage to the requirements of standard printing.	• Use of appropriate colour profiles • Proper conversion of image mode • Observance of printing standards
	For the competency as a whole: • Appropriate use of software • Proper saving of files • Demonstration of creativity

Suggestions for Competency-Related Knowledge and Know-How

The following is a summary of the knowledge related to each element, along with the attendant guidelines.

1. Analyze the request.	

• Analyze:
  • the concept or purpose
  • the target audience
  • the characteristics of the destination document
  • the production parameters and print settings
	Concept, target audience, client's needs and requirements: See competency 5
	Types of composite images: people, landscapes, objects, etc.
	Technical print requirements: formats, media, processes, finishing, etc.

• Determine the type of images to find or create.	Search of image banks, scanning, taking of photographs, creation of vector or raster images
2. Search for images.	
• Select images from image banks.	See competency 6
3. Create the missing images.	
• Take digital photographs or scan visual elements.	See competency 6
• Create vector or raster images.	See competencies 3 and 4

• Choose colours.	Colour selection based on project specifications, colour modes and aesthetic requirements
4. Process the images.	
• Prepare image processing.	Choice of colour profiles: see competency 7 Adjustment of resolution to comply with printing standards: See competencies 3 and 4
• Retouch the images.	Determination of light source Use of tools: pen, eyedropper, stamp, paintbrush, densitometer, local corrector, cloning, etc.
• Resize or crop the images.	Placement of the image on the canvas Change of image and canvas size according to height, width and resolution Use of cropping tool
• Correct noise.	Use of noise correction filters
• Adjust sharpness.	Importance of working with the native image Determination of adjustment mix with filters and tools Sharpening of the image using amount, radius and threshold
• Set colours, contrast and gradation.	Preservation of hues and brightness Determination of colour and ambient temperature Application of simultaneous contrast Use of colour selection, hue and saturation tools Use of channel mixer Selective alteration of colours Use of alpha channel, curves, gradient transfer, colour replacement, etc.
5. Produce the photomontage.	
• Blend the images.	Vector and raster image formats: See competencies 3 and 4 Image placement based on the request and rules of reading Organization of document structure through management of layers and histories

• Create effects:
  • special effects and illusions
  • sharpening or fading of details
	Cropping and resizing methods
	Cloning, removal and addition of elements
	Blending
	Use of filters
	Use of layers, layer masks, shape layers, selection layers, transparency, dissolve, etc.
	Use of perspective, distortion, texture, pixellation, etc.
	Use of sharpness and blur
	Addition of noise
	Effects of movement and blending, etc.

• Observe rules of composition.	Rules governing composition and aesthetic quality of a photomontage: colour harmony, structure, reading sequence, volume balance, rule of thirds, legibility, etc.

6. Have the photomontage approved.

• Present the photomontage.	Printing and preparation of a document for presentation Importance of meeting the deadline
• Make corrections.	See previous related knowledge

7. Adjust the photomontage to the requirements of standard printing.

• Choose colour profiles in light of printing standards.	See competency 7
• Convert the image mode in light of printing standards.	Conversion of RGB to CMYK or flat colour File format and saving: See competency 2

Composite Images for Visual Interfaces	Code: 965096

Competency 9 Duration 90 hours Credits 6

Behavioural Competency

Statement of the Competency	Achievement Context
Produce composite images for visual interfaces.	• Given a request • Using image banks, cameras, scanners and graphics tablets • Using utility software, vector and raster image processing software, optimization software and browsers • Using technical documentation on the destination media • Given distribution standards

Elements of the Competency	Performance Criteria
1. Analyze the request.	• Accurate analysis of the concept or purpose • Accurate analysis of the target audience • Accurate analysis of the characteristics of the destination document • Accurate analysis of the characteristics of the peripheral and visual interface • Accurate determination of the types of images to find or create
2. Search for images.	• Appropriate consultation of image banks • Choice of images based on project specifications
3. Create the missing images.	• Relevance and quality of photographs taken or images scanned • Proper creation of still frames, looping images, patterns and buttons • Choice of harmonious colours
4. Process the images.	• Appropriate choice of colour profiles • Proper adjustment of resolution • Quality and precision of retouching • Relevance of image resizing • Proper cropping of images • Adequate correction of noise • Relevance of colour adjustments • Proper adjustment of sharpness • Proper adjustment of image contrast and gradation

5. Produce the photomontage.	• Harmonious blending of images • Effectiveness of special effects and illusions • Proper sharpening or fading of details • Effective management of the document structure • Observance of rules governing image composition • Originality and aesthetic quality of the photomontage
6. Have the photomontage approved.	• Proper presentation of the photomontage • Relevance of corrections • Observance of deadline
7. Adjust the photomontage to the requirements of electronic distribution.	• Relevance of image mode conversion • Use of appropriate colour profiles • Proper optimization and validation of image display • Proper uploading of images to the server • Observance of distribution standards
	For the competency as a whole: • Appropriate use of software • Proper saving of files • Demonstration of creativity

Suggestions for Competency-Related Knowledge and Know-How

The following is a summary of the knowledge related to each element, along with the attendant guidelines.

1. Analyze the request.

• Analyze:
  • the concept or purpose
  • the target audience
  • the characteristics of the destination document
  • the characteristics of the peripheral and visual interface
	Concept, target audience, client's needs and requirements: See competency 5
	Types of composite images: people, landscapes, objects, etc.
	Technical requirements of electronic distribution: screen formats, access and consultation speed, languages, etc.

• Determine the type of images to find or create.	Search of image banks, scanning, taking of photographs, creation of vector or raster images

2. Search for images.

• Select images from image banks.	See competency 6

3. Create the missing images.	
• Take digital photographs or scan visual elements.	See competency 6
• Produce still frames, looping images, patterns and buttons.	Characteristics and use of still frames, looping images, patterns and buttons Creation of vector or raster images: See competencies 3 and 4
• Choose colours.	Colour selection based on project specifications, colour modes and aesthetic requirements
4. Process the images.	
• Prepare image processing.	Choice of colour profiles: See competency 7 Adjustment of resolution to comply with the visual interface: See competencies 3 and 4
• Retouch the images.	Determination of light source Use of tools: pen, eyedropper, stamp, paintbrush, densitometer, local corrector, cloning, etc.
• Resize or crop the images.	Placement of the image on the canvas Change of image and canvas size according to height, width and resolution Use of cropping tool
• Correct noise.	Use of noise correction filters
• Adjust sharpness.	Importance of working with the native image Determination of adjustment mix with filters and tools Sharpening of the image using amount, radius and threshold
• Set colours, contrast and gradation.	Preservation of hues and brightness Determination of colour and ambient temperature Application of simultaneous contrast Use of colour selection, hue and saturation tools Use of channel mixer Selective alteration of colours Use of alpha channel, curves, gradient transfer, colour replacement, etc.
5. Produce the photomontage.	
• Blend the images.	Vector and raster image formats: See competencies 3 and 4 Image placement based on the request and rules of reading Organization of document structure through management of layers and histories

• Create effects:
  • special effects and illusions
  • sharpening or fading of details
	Cropping and resizing methods
	Cloning, removal and addition of elements
	Blending
	Use of filters
	Use of layers, layer masks, shape layers, selection layers, transparency, dissolve, etc.
	Use of perspective, distortion, texture, pixellation, etc.
	Use of sharpness and blur
	Addition of noise
	Effects of movement and blending, etc.

• Observe rules of composition.	Rules governing composition and aesthetic quality of a photomontage: colour harmony, structure, reading sequence, volume balance, rule of thirds, legibility, etc.

6. Have the photomontage approved.

• Present the photomontage.	Printing and preparation of a document for presentation Observance of deadline
• Make corrections.	See previous related knowledge

7. Adjust the photomontage to the requirements of electronic distribution.

• Choose colour profiles in light of electronic distribution standards.	See competency 7
• Optimize and validate the image display.	Determination of image format, quality level, number of colours, transparency, etc.
• Upload the images to the server.	Choice of remote host Selection of files for uploading from the root folder Distribution standards File formats and saving: See competency 2

Tools for Proofreading English Texts	Code: 965104

Competency 10 Duration 60 hours Credits 4

Behavioural Competency

Statement of the Competency	**Achievement Context**
Use tools to proofread texts written in English.	• Given a variety of documents of normal length and complexity • Using correction software
Elements of the Competency	**Performance Criteria**
1. Do an initial read-through.	• Identification of main ideas or important elements in the text • Recognition of text structure • Accurate distinction of type of message • Identification of an acceptable number of oversights
2. Identify typographical and spelling errors, grammatical mistakes and simple punctuation errors.	• Accurate determination of correction software settings • Proper interpretation of error indicators • Observance of the proofreading process
3. Consult reference materials.	• Appropriate choice and use of traditional or digital reference sources • Systematic verification of error indicators
4. Interpret suggested corrections.	• Identification of an acceptable number of corrections to make • Identification of an acceptable number of doubtful cases • Respectful attitude toward the responsibilities of copy editors
	For the competency as a whole: • Appropriate use of correction software • Appropriate use of main proofreader's marks

Suggestions for Competency-Related Knowledge and Know-How

The following is a summary of the knowledge related to each element, along with the attendant guidelines.

1. Do an initial read-through.

• Identify the main ideas or important elements of various texts.	Reading of titles, subtitles, subheadings, running text, highlighted text, key, abstract, introduction, conclusion, etc.
• Recognize the structure of the text.	Identification of the components of a simple sentence and a complex sentence Nature and function of words in a sentence Identification of types of sentences: declarative, interrogative, etc. Identification of sentence formats: affirmative, negative, etc. Role and structure of paragraphs in a text Role of punctuation
• Recognize the type of message.	Advertising or journalistic message, literary or documentary text
• Identify oversights.	Method used to identify oversights: group reading, use of a ruler, etc.

2. Identify typological and spelling errors, grammatical mistakes and simple punctuation errors.

• Adjust the correction software settings.	Preference settings: punctuation, upper case letters, spaces and quotation marks
• Interpret potential errors identified by the system.	Categories of punctuation marks Upper case letters to begin a sentence Spaces Quotation marks Main types of words Ordinary nouns and proper nouns Nominal and decimal numbers Acronyms and abbreviations Doubles Signatures Conjugation of regular verbs in principle tenses Impacts of errors on document quality and public perception

3. Consult reference materials.

• Select and use traditional or digital reference sources.	Reference materials: dictionaries, grammar handbooks, style guides, etc. Web sites

4. Interpret suggested corrections.

• Indicate the corrections to make, or signal doubtful cases.	Recognition and use of correction symbols to identify potential errors in the text Importance of editorial freedom Importance of the role of copy editors Role of computer graphics designers

Typographic Elements	Code: 965116

Competency 11 Duration 90 hours Credits 6

Behavioural Competency

Statement of the Competency	**Achievement Context**
Manipulate typographic elements.	• For print documents and visual interfaces • Given plain text from multiple sources • Using typographic conventions and reference materials • Using utility and page layout software
Elements of the Competency	**Performance Criteria**
1. Acquire text.	• Appropriate choice of character encoding • Proper importing or scanning of texts • Correct keying of missing text
2. Clean up the text.	• Correct identification of all the elements to clean up • Appropriate choice and use of a cleanup method
3. Modify fonts.	• Correct identification of all the elements to modify • Observance of font design
4. Apply typographic rules to the text.	• Correct identification of all the typographic errors • Appropriate use of software or manual correction method • Validity of the exceptions made
5. Develop and finalize typographic style sheets.	• Choice of harmonious fonts • Correct determination of the typographic characteristics of the style sheets • Appropriate choice of software • Effectiveness of styles • Observance of hierarchical levels • Correct archiving of typographic style sheets
	For the competency as a whole: • Appropriate use of software • Appropriate use of reference materials • Observance of font limitations • Observance of typographic conventions

Suggestions for Competency-Related Knowledge and Know-How

The following is a summary of the knowledge related to each element, along with the attendant guidelines.

1. Acquire text.
   - Import or scan text.
     Appropriate choice of character encoding
     Use of optical character recognition
   - Key missing text.
     Types of keyboards and keys
     Positioning of fingers
2. Clean up the text.
   - Identify and correct anomalies.
     Removal of superfluous keystrokes: return, tabulation, space, etc.
     Choice and use of a manual cleanup method, and use of the software's "Replace" function
3. Modify fonts.
   - Recognize fonts.
     International character classification
     Characteristics of font families
     Types of fonts, styles (capitals, italics, bold, etc.), size, ligature and kerning
     Association of fonts with their use: message, reader, medium, size, colour
   - Identify and change elements.
     Use of utility software and changes to serif, height or width
4. Apply typographic rules to the text.
   - Identify and correct typographic errors.
     Types of spaces and hyphens used in typography
     Rules relating to hyphenation (number of characters before and after hyphenation, number of consecutive hyphenations, and hyphenation of proper nouns)
     Use and conversion of quotation marks
     Use of parentheses, brackets, italics, etc.
     Use of typographic reference books
     Choice and use of a correction method: manual and use of the software's "Replace" function
     Importance of the role of copy editors, the role of computer graphics designers, and exceptions

5. Develop and finalize typographic style sheets.

• Determine the characteristics of style sheets.	Description and function of text tools Style sheet creation method Types of page layout software Choice and use of fonts: see above Choice of justification and hyphenation, string options, etc. Widow and orphan lines, river and flag effects Effectiveness of style sheets: identification, absence of duplications and similarities, use of duplicates and models, hierarchical levels, etc. Archiving of style sheets: location and importing

Simple Page Layouts for Print Documents	Code: 965127

Competency 12 Duration 105 hours Credits 7

Behavioural Competency

Statement of the Competency	**Achievement Context**
Create simple page layouts for print documents.	• For stationery, business forms, displays, leaflets, posters, signs, labels and double-sided documents • Given a mockup and project specifications • Using texts and visual elements • Using colour charts • Using font libraries • Using utility and page layout software
Elements of the Competency	**Performance Criteria**
1. Analyze the project.	• Accurate identification of the client's needs and requirements • Accurate analysis of the texts and visual elements • Accurate analysis of the concept and target audience • Accurate analysis of the mockup's graphic design • Accurate analysis of the technical printing requirements • Accurate description of the appearance of the final document
2. Produce the page layout document.	• Proper creation of the production file folder • Proper preparation of the page layout grids • Proper organization of text and image containers • Appropriate use of font libraries and colour charts
3. Prepare the texts.	• Proper manipulation of typographic elements • Proper use of spelling and grammar checks • Respectful attitude toward the responsibilities of copy editors
4. Incorporate the texts.	• Proper importing and placement of texts • Proper definition and application of typographic styles • Observance of hierarchical levels • Observance of typographic conventions

5. Incorporate the visual elements.	• Proper importing and placement of graphic elements and images • Proper definition and application of object styles • Adequate runaround space for graphic elements and images • Observance of rules of composition
6. Have the page layout approved.	• Accurate description of the characteristics of the page layout • Relevance of corrections • Observance of deadline
	For the competency as a whole: • Appropriate use of software • Proper saving of files • Consistency with mockup • Compliance with project specifications

Suggestions for Competency-Related Knowledge and Know-How

The following is a summary of the knowledge related to each element, along with the attendant guidelines.

1. Analyze the project.

• Analyze:
  • the client's needs and requirements
  • the texts and visual elements
  • the concept and target audience
  • the mockup's graphic design
  • the technical printing requirements
	Concept, target audience, client's needs and requirements: See competency 5
	Graphic features of page layout mockup design: colours, typography, texts, visual elements, etc.
	Characteristics of page layouts: stationery, business forms, displays, leaflets, posters, signs, labels and double-sided documents
	Technical printing requirements: formats, media, processes, finishing, etc.

2. Produce the page layout document.

• Create the production file folder	Folder creation: See competency 2
• Develop page layout grids based on the mockup	Function of page layout grids Reading sequence and hierarchical levels Definition of page formats, margins, columns and gutters Use of guidelines, units of measure and basic grids
• Organize text and image containers.	Function of text and image containers Use of style sheets, font libraries and colour charts

3. Prepare the texts.	
• Manipulate the typographic elements.	See competency 11
• Use spelling and grammar checks.	See competency 10
4. Incorporate the texts.	
• Import and position the texts.	File formats: See competency 2 Choice of text container or area based on the page layout grid Choice of text format Text wraparound
• Define and apply typographic styles.	See competency 11
• Verify the hierarchical levels and application of typographic conventions.	Importance of hierarchical levels for reading Application of typographic conventions: See competency 11
5. Incorporate the visual elements.	
• Import and position the visual elements and images.	File formats: See competency 2 Choice of image container or area based on the page layout grid Verification of links with image files
• Define and apply object styles.	Definition of object, text or image styles Choice of background, contour, runaround and effects Object styles: dimensions, shape, colours, texture and content Definition of styles based on the document grid and structure
• Create runaround space for graphic elements and images.	Definition of space around graphic elements and images
• Apply rules of composition.	Principal rules of composition: reading sequence, volume balance, legibility, etc.
6. Have the page layout approved.	
• Describe the characteristics of the page layout.	Printing and preparation of a mockup Observance of deadline
• Make corrections.	See previous related knowledge

Simple Page Layouts for Visual Interfaces	Code: 965137

Competency 13 Duration 105 hours Credits 7

Behavioural Competency

Statement of the Competency	Achievement Context
Create simple page layouts for visual interfaces.	• For Web interfaces, desktop presentations, cell phones, MP3 players, electronic books, etc. • Given a mockup, details on the information architecture and project specifications • Using texts and visual elements • Using colour charts • Using font libraries • Using utility and page layout software • Following rules of ergonomics • Given the destination medium

Elements of the Competency	Performance Criteria
1. Analyze the project.	• Accurate identification of the client's needs and requirements • Accurate analysis of the texts and visual elements • Accurate analysis of the concept and target audience • Accurate analysis of the graphic design of the mockup • Accurate analysis of the technical requirements of electronic distribution • Accurate description of the appearance of the final document
2. Produce the page layout document.	• Proper creation of the root file • Proper development of layout grids • Proper arrangement of text and image containers • Appropriate use of font libraries and colour charts • Appropriate use of style sheets • Compliance with information architecture • Observance of rules of ergonomics
3. Prepare the texts.	• Proper manipulation of typographic elements • Proper use of spelling and grammar checks • Respectful attitude toward the responsibilities of copy editors

Simple Page Layouts for Visual Interfaces	Code: 965137
4. Incorporate the texts.	• Proper importing and placement of texts • Proper application and adaptation of typographic styles • Observance of hierarchical levels • Observance of typographic conventions
5. Incorporate the visual elements.	• Proper importing and placement of graphic elements and images • Proper application and adaptation of object styles • Observance of rules of composition
6. Test the functionality of elements in the visual interface.	• Appropriate uploading of files to the medium • Appropriate use of the functions of the visual interface and the medium • Validation that the interactive elements are functioning properly • Validation that the texts and visual elements are precisely positioned • Appropriate verification that the display is effective
7. Have the page layout approved.	• Accurate description of the characteristics of the page layout • Relevance of corrections • Observance of deadline
	For the competency as a whole: • Appropriate use of software • Proper application of interactive effects • Proper saving of files • Consistency with mockup • Compliance with project specifications

Suggestions for Competency-Related Knowledge and Know-How

The following is a summary of the knowledge related to each element, along with the attendant guidelines.

1. Analyze the project.

• Analyze:
  • the client's needs and requirements
  • the texts and visual elements
  • the concept and target audience
  • the graphic design of the mockup
  • the technical requirements of electronic distribution
	Concept, target audience, client's needs and requirements: See competency 5
	Graphic features of the design of the page layout mockup: colours, typography, texts, visual elements, etc.
	Characteristics of visual interfaces: Web, desktop presentations, cell phones, MP3 players, electronic books, etc.
	Technical requirements of electronic distribution: screen formats, access and consultation speed, languages, etc.

2. Produce the page layout document.

• Create the root file.	Folder creation: See competency 2 Location of image folders and page folders Web site name
• Develop page layout grids based on the mockup and on the information architecture.	Function of page layout grids Information architecture and rules of ergonomics Setting of page formats Use of guidelines, units of measure and magnetic references Use of model pages
• Organize text and image containers.	Function of text and image containers Types of languages, tags, etc. Use of style sheets, font libraries and colour charts

3. Prepare the texts.

• Manipulate the typographic elements.	See competency 11
• Use spelling and grammar checks.	See competency 10

4. Incorporate the texts.

• Import and position the texts.	File formats: See competency 2 Choice of text container or area based on the page layout grid Choice of text format
• Apply and adjust typographic styles.	Style definitions: See competency 11

• Apply interactive effects.	Interactive effects: highlighting, colour contrast, alternation, etc. Anchors, internal and external links Verification to ensure that links are valid
• Verify the hierarchical levels and application of typographic conventions.	Importance of hierarchical levels for reading Application of typographic conventions: See competency 11

5. Incorporate the visual elements.

• Import and position the visual elements and images.	File formats: See competency 2 Choice of image container or area based on the page layout grid Verification of links with image files
• Apply and adjust the object styles.	Object styles: dimensions, shape, colours, texture and content Definition of styles based on the document grid and structure
• Apply interactive effects.	Interactive effects: highlighting, colour contrast, alternation, etc. Anchors, internal and external links Verification to ensure that links are valid
• Apply rules of composition.	Principal rules of composition: reading sequence, volume balance, legibility, etc.

6. Test the functionality of elements in the visual interface.

• Upload the files to the medium.	Choice of remote host Choice of root file folders to upload Distribution standards
• Validate that the elements are functional.	Execute visual interface and medium functions Link interactivity and functionality Placement of text and visual elements in accordance with the page layout Display effectiveness: stability, speed and display stages

7. Have the page layout approved.

• Describe the characteristics of the page layout.	Printing and preparation of a mockup Observance of deadline
• Make corrections.	See previous related knowledge

Simple Page Layout Templates for Visual Interfaces	Code: 965146

Competency 14 Duration 90 hours Credits 6

Behavioural Competency

Statement of the Competency	**Achievement Context**
Create simple page layout templates for visual interfaces.	• Given a mockup, content elements and project specifications • Working in a team • Using image banks, cameras, scanners and graphics tablets • Using colour charts • Using fonts • Using utility, vector and raster processing, page layout and browser software

Elements of the Competency	**Performance Criteria**
1. Analyze the project.	• Accurate identification of the client's needs and requirements • Accurate analysis of the concept and target audience • Accurate analysis of content elements • Accurate analysis of the mockup's structure and composition • Accurate analysis of the characteristics of the peripheral and visual interface • Accurate description of the appearance of the final document
2. Prepare the technical specifications.	• Accurate determination of the requirements relating to electronic distribution • Precision and accuracy of the technical information concerning the template characteristics
3. Develop the visual content.	• Appropriate consultation of image banks • Relevance and quality of photographs taken or images scanned • Adequate creation of vector and raster images • Proper adaptation of content elements • Proper adaptation of graphic elements • Proper development of layout grids • Choice of harmonious colours • Choice of harmonious fonts • Proper optimization of images • Observance of file tree • Demonstration of creativity

4. Optimize the typographic composition.	• Proper adjustment of typographic settings to suit reading requirements • Proper configuration of cascading style sheets • Observance of the hierarchy of content elements • Observance of typographic conventions
5. Assemble the page layout template.	• Proper importing and placement of content elements and graphic elements • Appropriate use of page layout grids • Accuracy of the settings for the electronic distribution method • Proper production of template pages • Proper validation that the template is functional • Observance of the file tree • Observance of reading sequence
6. Build the page architecture.	• Appropriate choice of container type • Proper configuration of cascading style sheets • Proper application of nesting principles • Proper validation of the architecture and functionality of links
7. Have the page layout template approved.	• Accurate description of the template's characteristics • Relevance of corrections • Observance of deadline
	For the competency as a whole: • Appropriate use of software • Consistency with mockup • Compliance with project specifications • Proper saving of files

Suggestions for Competency-Related Knowledge and Know-How

The following is a summary of the knowledge related to each element, along with the attendant guidelines.

1. Analyze the project.

• Analyze:
  • the client's needs and requirements
  • the concept or purpose
  • the target audience
  • the content elements
  • the structure and composition of the mockup
  • the characteristics of the peripheral and visual interface
	Concept, target audience, client's needs and requirements: See competency 5
	Graphic features of the mockup for the page layout template: colours, typography, texts, visual elements, etc.
	Characteristics of visual interfaces: Web interfaces, desktop presentations, cell phones, MP3 players, electronic books, etc.
	Technical requirements of electronic distribution: screen formats, access and consultation speed, languages, etc.

2. Prepare the technical specifications.

• Determine the template's technical data.	Analysis of requirements relating to the electronic distribution method: See competency 5 Characteristics of the template to create: visual elements, typographic composition and page architecture

3. Develop the visual content.

• Acquire images.	Search of image banks, taking of digital photographs or scanning of visual elements: See competency 6
• Create vector or raster images and adjust the content elements and graphic elements.	See competencies 3 and 4
• Develop page layout grids based on the mockup.	Function of page layout grids Information architecture and rules of ergonomics Setting of page formats Use of guidelines, units of measure and magnetic references Use of model pages
• Choose colours.	Colours based on mockup specifications, colour modes and aesthetic requirements
• Choose the fonts.	Criteria for selecting fonts: use, message and target audience Choice of typographic features: font type, style, size, etc.: See competency 11
• Optimize the images.	See competencies 3 and 4

4. Optimize the typographic composition.	
• Adjust the typographic settings to suit reading requirements.	Choice of typographic settings based on containers or regions
• Configure the cascading style sheets.	Definition of cascading style sheets: classes, actions, display settings, interactivity, performance functions, etc. Alteration of style rendering according to display type
• Verify the hierarchical levels and application of typographic conventions.	Importance of hierarchical levels for reading Application of typographic conventions: See competency 11
5. Assemble the page layout template.	
• Produce the page templates.	File formats and importing of content elements and graphic elements: See competency 2 Placement of content elements and graphic elements: choice of container or area based on the page layout grid Choice of text format Verification of links to image files Electronic distribution format settings: interface types and screen formats
• Validate that the template is functional.	Importance of reading sequence Use of a browser and file trees
6. Build the page architecture.	
• Choose the type of container to build.	Choice of image and text boxes Setting of margins, fill and borders Setting of colours and proportions
• Apply the cascading style sheets.	Choice of font family, format, colour and style Texts organized according to their importance
• Apply the principles of nesting.	Principles of nesting as they relate to scripting: links, interactive regions, active zones, etc.
• Validate the architecture and functionality of links.	Execution of visual interface and media functions
7. Have the page layout template approved.	
• Describe the characteristics of the template.	Printing and preparation of a mockup Observance of deadline
• Make corrections.	See previous related knowledge

Page Layout Templates for Print Documents	Code: 965156

Competency 15 Duration 90 hours Credits 6

Behavioural Competency

Statement of the Competency	**Achievement Context**
Create page layout templates for print documents.	• Given a mockup, content elements and project specifications • Working in a team • Using image banks, cameras, scanners and graphics tablets • Using colour charts • Using font libraries • Using utility, page layout and vector and raster image processing software

Elements of the Competency	**Performance Criteria**
1. Analyze the project.	• Accurate identification of the client's needs and requirements • Accurate analysis of the concept and target audience • Accurate analysis of content elements • Accurate analysis of the mockup's structure and composition • Accurate description of the appearance of the final document
2. Prepare the technical specifications.	• Accurate determination of the requirements relating to the reproduction method, print media and finishing • Precision and accuracy of the technical information concerning the template characteristics
3. Develop the visual content.	• Appropriate consultation of image banks • Relevance and quality of photographs taken or images scanned • Adequate creation of vector and raster images • Proper adaptation of content elements • Proper adaptation of graphic elements • Proper development of layout grids • Choice of harmonious colours • Choice of harmonious fonts • Consistency with mockup • Demonstration of creativity

4. Optimize the typographic composition.	• Proper adjustment of typographic settings to suit reading requirements • Appropriate choice of hyphenation and justification settings • Proper configuration of typographic style sheets • Observance of the hierarchy of content elements • Observance of typographic conventions
5. Assemble the page layout template.	• Proper importing and placement of content elements and graphic elements • Appropriate use of page layout grids • Accuracy of the final format settings • Proper production of layers and template pages • Proper configuration of object style sheets • Proper validation that the template is functional • Observance of reading sequence • Consistency with mockup
6. Have the page layout template approved.	• Accurate description of the template's characteristics • Relevance of corrections • Observance of deadline
	For the competency as a whole: • Appropriate use of software • Proper saving of files • Compliance with project specifications

Suggestions for Competency-Related Knowledge and Know-How

The following is a summary of the knowledge related to each element, along with the attendant guidelines.

1. Analyze the project.

• Analyze:
  • the client's needs and requirements
  • the concept or purpose
  • the target audience
  • the content elements
  • the structure and composition of the mockup
	Concept, target audience, client's needs and requirements: See competency 5
	Graphic features of the template mockup design for the page layout: colours, typography, texts, visual elements, etc.
	Characteristics of page layouts: stationery, business forms, displays, leaflets, posters, signs, labels and double-sided documents
	Technical print requirements: formats, media, processes, finishing, etc.

2. Prepare the technical specifications.	
• Determine the template's technical data.	Analysis of requirements relating to reproduction method, print media and finishing: See competency 5 Characteristics of the template to create: visual elements, typographic composition and page architecture
3. Develop the visual content.	
• Acquire images.	Search of image banks, taking of digital photographs or scanning of visual elements: See competency 6
• Create vector or raster images and adjust the content elements and graphic elements.	See competencies 3 and 4
• Develop page layout grids based on the mockup.	Function of page layout grids Reading sequence and hierarchical levels Setting of page formats, margins, columns and gutters Use of guidelines, units of measure and basic grids
• Choose colours.	Colours based on mockup specifications, colour modes and aesthetic requirements
• Choose the fonts.	Criteria for selecting fonts: use, message and target audience Choice of typographic features: font type, style, size, etc.: See competency 11
• Optimize the images.	See competencies 3 and 4
4. Optimize the typographic composition.	
• Adjust the typographic settings to suit reading requirements.	Choice of typographic settings based on containers or regions
• Select hyphenation and justification settings.	Hyphenation and justification characteristics: See competency 11
• Configure the typographic style sheets.	Categories of style sheets: See competency 11
• Verify the hierarchical levels and application of typographic conventions.	Importance of hierarchical levels for reading Application of typographic conventions: See competency 11

5. Assemble the page layout template.	
• Produce the layers and page templates.	File formats and importing of content elements and graphic elements: See competency 2 Management and use of overlays Placement of content elements and graphic elements: choice of container or region based on the page layout grid and mockup Choice of text format Verification of links to image files Final format settings: bleeds, dimensions, margins, etc.
• Configure the object style sheets.	Definition of object styles: texts or images Choice of background, contour, runaround and effects Object style: dimension, shape, colour, texture and content Definition of styles based on the document grid and structure
• Validate that the template is functional.	Importance of reading sequence Organization of the document and use of substitute texts and previews
6. Have the page layout template approved.	
• Describe the characteristics of the template.	Printing and preparation of a mockup Observance of deadline
• Make corrections.	See previous related knowledge

Imposition and Finishing	Code: 965164

Competency 16 Duration 60 hours Credits 4

Behavioural Competency

Statement of the Competency	**Achievement Context**
Prepare imposition proofs with finishing for standard formats.	• For corporate documents, publications and advertising documents • For quarto imposition formats • For sheet-fed offset printing • For regular trimming, folding and perforating operations • For mechanical binding, stitch binding and adhesive binding • Given project specifications • Using traditional tools, print media and imposition software • Using large-format printers

Elements of the Competency	**Performance Criteria**
1. Plan the imposition and finishing.	• Accurate analysis of information concerning different types of printing presses and printing and finishing processes • Accurate analysis of information concerning the medium, binding and finishing • Correct determination of the type of imposition required • Accurate determination of the number of signatures required
2. Produce an imposition proof with finishing.	• Accurate identification of the paper grain direction • Accuracy of the trimming, folding and regular perforation settings • Proper imposition (solid, single-sided, half-sheet, sheetwise, head-to-foot) • Accurate measurement of the placement of pages and spaces at the top, bottom, outside and back • Correct page orientation • Appropriate use of traditional tools and print media • Compliance with requirements relating to equipment, print media and finishing

3. Produce the imposition and finishing template.	• Accurate transcription of proof data • Appropriate choice and placement of control elements • Correct print settings
4. Assemble and verify a prototype.	• Proper sheet assembly • Proper validation of page groupings and positioning • Proper validation of pagination continuity • Proper validation of margin accuracy • Relevance of corrections • Appropriate use of trimming and assembly tools
	For the competency as a whole: • Appropriate use of software and print peripherals • Proper saving of files • Compliance with printing and finishing requirements • Compliance with project specifications

Suggestions for Competency-Related Knowledge and Know-How

1. Plan the imposition and finishing.	
• Analyze information relating to different types of printing presses and printing and finishing processes.	Characteristics of corporate documents, publications and advertising documents Specific features of sheet-fed offset printing: one, two and four colours Paper turning methods for double-sided printing: work-and-turn, work-and-tumble
• Analyze information relating to the medium, binding and finishing.	Types of standard media formats Signature assembly methods, depending on the type of binding and final cut
• Determine the type of imposition required and the number of signatures.	Determination of imposition type according to equipment, medium format, number of plates, turning method, print run, signature assembly and finishing Determination of the number of signatures based on the number of pages
2. Produce an imposition proof with finishing.	
• Identify the paper grain direction.	Folding and tearing of the paper Paper format orientation based on how it will travel through the press

• Decide on the placement of trimming, folding and regular perforation marks.	Trim marks adjusted to the edge of the bleeds Equal distribution of folds and perforations
• Carry out imposition (solid, single-sided, half-sheet, sheetwise, head-to-foot)	Paper orientation: type of paper, grain direction, turning method, folding and graphic content Placement of pages and spaces at the top, bottom, outside and back Value of internal and external set width
• Assemble the proof.	Use of traditional tools: precision knife, ruler, squares, light table, cutting table, etc. Print media handled according to the requirements of imposition with finishing
3. Produce the imposition and finishing template.	
• Transcribe information from the proof.	See above
• Select and position the control elements.	Location of grippers, bottom of sheet, assembly lip and the bleed Position of the press feeder mechanism Position and value of the assembly lip Colour control
• Print the template.	Use of a large-format printer and print settings
4. Assemble and verify a prototype.	
• Assemble the sheets.	Use of cutting and assembly tools: guillotine cutter, punching machine and wire stitcher Folding and arrangement of signatures according to the requirements of imposition with finishing
• Validate the prototype.	Validation of page grouping and placement, pagination continuity and margin accuracy (bleeds)

Complex Page Layouts for Print Documents	Code: 965177

Competency 17 Duration 105 hours Credits 7

Behavioural Competency

Statement of the Competency	Achievement Context
Create complex page layouts for print documents.	• For business and specialized publications, press editing, promotional materials and packaging • Working alone and in a team • Given a page layout template and project specifications • Using texts, tabular data and visual elements • Using colour charts • Using font libraries • Using utility, page layout and proofing software • Using proof printers

Elements of the Competency	Performance Criteria
1. Verify the page layout folder.	• Accurate analysis of the project specifications • Accurate analysis of the texts, tabular data and visual elements • Proper validation of template parameters • Proper validation of typographic parameters • Proper validation of final format and finishing parameters • Proper creation of folders • Proper classification of files
2. Produce the page layout document.	• Appropriate importing of the template • Proper generation and numbering of pages and sections • Appropriate choice of model pages from the template • Adequate organization of text flow • Proper validation of page layout document architecture
3. Prepare the texts.	• Proper manipulation of typographic elements • Proper use of spelling and grammar checks • Respectful attitude toward the responsibilities of copy editors

4. Incorporate the texts.	• Proper importing and placement of texts and tabular data • Proper application and adaptation of typographic style sheets • Proper generation of table of contents, notes and index • Observance of hierarchical levels
5. Incorporate the visual elements.	• Relevance of image placement choices • Proper importing of graphic elements and images • Proper application and adjustment of object styles • Adequate runaround space for graphic elements and images • Observance of folder structure
6. Have the page layout approved.	• Careful production of a prototype • Accurate description of the characteristics of the page layout • Proper insertion of author's corrections • Relevance of corrections • Observance of deadline
	For the competency as a whole: • Appropriate use of template • Appropriate use of software • Proper saving of files • Consistency with the page layout grids and concept • Observance of typographic conventions • Compliance with project specifications

Suggestions for Competency-Related Knowledge and Know-How

The following is a summary of the knowledge related to each element, along with the attendant guidelines.

1. Verify the page layout folder.

• Analyze the project specifications.	Client's requirements: timeframe, costs, format, print medium, reproduction and finishing method, etc. Organization of teamwork and distribution of page layout tasks
• Analyze the texts and visual elements.	See competencies 3, 4 and 10

• Validate the elements of the page layout file.	Validation of template settings: model pages, margins, page layout grids, notes, etc. Validation of typographic settings: See competency 11 Validation of final format and finishing parameters: dimensions, bleeds, trimming and assembly
• Organize the folders and files.	See competency 2
2. Produce the page layout document.	
• Import the template.	Use of the page manager dialogue box
• Insert the pages.	Organization of pages and sections based on document type Model pages and references
• Organize the text flow.	Text flow based on columns, pages and sections Flow of model text boxes
• Verify the architecture of the page layout document.	Importance of reading sequence and hierarchical levels
3. Prepare the texts.	
• Manipulate the typographic elements.	See competency 11
• Use spelling and grammar checks.	See competency 10
4. Incorporate the texts.	
• Import and position the texts and tabular data.	File formats: See competency 2 Choice of text container or region based on the template Choice of text format Tabular data: cells, tables, numbers and personalized text Text flow
• Apply and adjust the typographic style sheets.	Importance of adapting the template typographic style sheets to suit production requirements
• Generate the table of contents, notes and index.	Types of tables of contents, notes and indexes Use of software tools and application of styles
• Verify the hierarchical levels and application of typographic conventions.	Importance of hierarchical levels for reading Application of typographic conventions: See competency 11
5. Incorporate the visual elements.	
• Select placements for images throughout the document.	Main placement criteria: reading sequence, volume balance, legibility and links with the text

• Import and position the graphic elements and images.	File formats: See competency 2 Choice of image container or region based on the template Verification of links to image files
• Define and apply object styles.	Definition of object, text or image styles Choice of background, contour, space around the images, and effects Object styles: dimension, shape, colours, texture and content Definition of styles based on the document grid and structure
• Create runaround space for graphic elements and images.	Definition of space around graphic elements and images.
• Apply rules of composition.	Principal rules of composition: reading sequence, volume balance, legibility, etc.
6. Have the page layout approved.	
• Create a prototype.	See competency 16
• Describe the characteristics of the page layout.	Printing and preparation of a mockup Observance of deadline
• Insert the author's corrections.	Author's corrections and approval signatures
• Make corrections.	See previous related knowledge

Document Rasterization	Code: 965184

Competency 18 Duration 60 hours Credits 4

Behavioural Competency

Statement of the Competency	**Achievement Context**
Prepare rasterized documents.	• Given a portable digital file • Given project specifications • Using rasterized image generators • Given print settings and international colour standards • Using proof printers
Elements of the Competency	**Performance Criteria**
1. Organize the work in the production flow.	• Accurate analysis of the project specifications • Appropriate verification of the digital file's validity • Correct settings for rasterization software preferences • Correct production flow settings • Appropriate choice of colour profile • Appropriate choice of print guides • Appropriate choice of conventional rasterization method • Appropriate choice of ruling, dot type and colour angles • Observance of print settings and international colour standards
2. Rasterize the document.	• Proper transfer of files to the raster image generator
3. Validate the proof.	• Proper print settings • Identification of all rasterization errors • Relevance of corrections • Appropriate use of printer
	For the competency as a whole: • Appropriate use of rasterization software • Proper saving of files

Suggestions for Competency-Related Knowledge and Know-How

The following is a summary of the knowledge related to each element, along with the attendant guidelines.

1. Organize the work in the production flow.

• Analyze the project specifications.	Characteristics of print settings and international colour standards: types of portable documents and ISO colour standards Constraints relating to the document and type of output equipment (offset and digital press)
• Verify the digital file.	Formats, colour matching, etc.
• Set the rasterization software preferences.	Unit and measurement systems Creation of spool and post-processing files Priority order for document processing and deletion (print queue)
• Set the production flow parameters.	Creation of the production environment: type of medium, print quality and speed, cut, document orientation and customized format
• Choose the colour profile.	Specification of RGB and CMYK input colour profiles for untagged elements Selection of output colour profile and CMYK conversion method Simulated rendering
• Choose the print settings.	Types of lines: trim marks, bleeds, etc. Position and offsetting of guides based on project specifications
• Choose the rasterization method, ruling, dot type and colour angles.	Selection of rasterization options according to the medium Ruling: 85, 120, 133 and 150 lines Dot types: triangle, curve, polygon, stochastic, etc. Angulations to limit the possibility of artefacts

2. Rasterize the document.

• Transfer the files to the raster image generator.	Selection of the appropriate environment from the project specifications Selection of processing files

3. Validate the proof.

• Print the proof.	Use of a proof printer and print settings

Document Rasterization	Code: 965184
• Identify rasterization errors and make corrections.	Error sources: poor native files, incorrect rasterization preference settings or production flow settings, inadequate colour profiles, poorly defined print guides, incorrect data transfer, etc. Determination of simple, effective solutions, insertion of corrections (see above) and validation of corrections

Preparing Documents for Digital Printing	Code: 965194

Competency 19 Duration 60 hours Credits 4

Behavioural Competency

Statement of the Competency	Achievement Context
Prepare documents for digital printing.	• Given a page layout and native file folder • Using variable data • Using a raster image generator • Using colour charts • Using traditional tools, utility software, prepress software, vector and raster image processing software, page layout software, colour management software and proofing software • Using proof printers • Using printing standards

Elements of the Competency	Performance Criteria
1. Review the page layout folder.	• Accurate analysis of the project specifications • Proper organization of work in the production flow • Proper validation of the presence of variable data • Validation that the image property data are accurate • Validation of the full font set • Validation that the final format and finishing parameters are accurate
2. Assemble the document using variable data.	• Proper importing of files • Proper synchronization of colour profiles • Accurate conversion of customized colours • Accurate distinction of variable data containers • Correct merging of variable data into the document • Compliance with the rules of confidentiality
3. Generate a portable digital file.	• Correct setting of all export parameters • Appropriate use of colour charts • Appropriate black setting • Appropriate transparency setting • Complete and consistent correction of objects causing problems • Observance of compatibility standards • Observance of printing standards

4. Produce a proof for verification.	• Correct grouping and placement of pages • Proper preparation of files for finishing • Proper validation of the proof • Proper rasterization of document • Observance of deadline
5. Archive the material.	• Proper saving of files • Proper classification of files and folders
	For the competency as a whole:
	• Appropriate use of software • Relevance of corrections • Proper saving of files • Compliance with production flow requirements • Compliance with project specifications

Suggestions for Competency-Related Knowledge and Know-How

The following is a summary of the knowledge related to each element, along with the attendant guidelines.

1. Review the page layout folder.

• Analyze the project specifications.	Client's requirements: timeframe, costs, format, print medium, reproduction and finishing method, etc.
• Organize the work in the production flow.	See competency 18
• Validate the document information.	Validation of the accuracy of the variable data, image properties (resolution, modes, format, cropping, etc.), fonts (family, style, body, etc.), final format and finishing parameters (units of measure, bleeds, formats, margins, assembly, etc.)

2. Assemble the document using variable data.

• Import the files.	File formats: See competency 2
• Synchronize the colour profiles.	See competency 7

• Convert customized colours.	Conversion of customized colours based on the project specifications Use of colour guides to convert colours from charts Identification of customized colours outside the printable range and selection of substitution values Standardized conversion for all customized colours Verification of customized colour rendering (solids, tints, gradients)
• Incorporate variable data into the document structure.	Types of variable data containers: name, address, telephone number, etc. Importance of the rules of confidentiality
3. Generate a portable digital file.	
• Define the properties of the portable digital file.	Setting of export parameters according to the portable file versions and ISO standards Distillation software export settings: inclusion of fonts, image resolution and compression, colour space and image conversion, etc. Black density setting Colour and image transparency settings, etc.
• Correct objects causing problems.	Types of problem-causing objects: incorrect colour setting, inconsistent image resolutions, failure to respect proportions, incompatibility with printing standards, font conflicts, etc. Determination of simple, effective solutions, insertion of corrections (see above) and validation of corrections
4. Produce a proof for verification.	
• Assemble the pages.	See competency 16
• Prepare the files for finishing and validate the proofs.	See competency 16
• Rasterize the document.	See competency 18
5. Archive the material.	
• Classify the files and manage the folders.	See competency 2

Preparing Documents for Standard Offset Printing	Code: 965205

Competency 20 Duration 75 hours Credits 5

Behavioural Competency

Statement of the Competency	Achievement Context
Prepare documents for standard offset printing.	• Given a page layout and native file folder • Using a raster image generator • Using colour charts • Using traditional tools, utility software, prepress software, vector and raster image processing software, page layout software, colour management software and proofing software • Using proof printers • Using printing standards

Elements of the Competency	Performance Criteria
1. Review the page layout folder.	• Accurate analysis of the project specifications • Proper organization of work in the production flow • Validation that the image property data are accurate • Validation of the full font set • Validation that the final format and finishing parameters are accurate
2. Assemble the document.	• Proper importing of files • Proper synchronization of colour profiles • Accurate conversion of customized colours • Proper colour trapping
3. Generate a portable digital file.	• Correct setting of all export parameters • Appropriate black setting • Appropriate transparency setting • Complete and consistent correction of objects causing problems • Observance of compatibility standards • Observance of printing standards
4. Produce prepress proofs.	• Proper imposition of the document • Proper preparation of files for finishing • Proper validation of proofs • Proper rasterization of document

5. Give approval for print run.	• Evaluation of the press proof based on the project specifications • Proper determination of all corrections required • Approval signatures obtained for print order • Respectful attitude toward others • Observance of deadline
6. Archive the material.	• Proper classification of files • Proper management of folders
	For the competency as a whole:
	• Appropriate use of colour charts • Appropriate use of software • Relevance of corrections • Proper saving of files • Compliance with production flow requirements • Compliance with project specifications

Suggestions for Competency-Related Knowledge and Know-How

The following is a summary of the knowledge related to each element, along with the attendant guidelines.

1. Review the page layout folder.	
• Analyze the project specifications.	Client's requirements: timeframe, costs, format, print medium, reproduction and finishing methods, etc.
• Organize the work in the production flows.	See competency 18
• Validate the document information.	Validation of the accuracy of the information (types of texts and tabular data), image properties (resolution, modes, format, cropping, etc.), fonts (family, style, body, etc.), final format and finishing parameters (units of measure, bleeds, formats, margins, assembly, etc.)
2. Assemble the document.	
• Import the files.	File formats: See competency 2
• Synchronize the colour profiles.	See competency 7

• Convert customized colours.	Conversion of customized colours based on the project specifications Use of colour guides for the conversion Identification of customized colours outside the printable range and selection of substitution values Standardized conversion for all customized colours Verification of customized colour rendering (solids, tints, gradients)
• Trap the colours.	Identification of trap zones and the types of objects concerned (lines, images, texts) General settings based on the project specifications Special settings (e.g. deactivation of overprinting or modification of thinning or thickening)
3. Generate a portable digital file.	
• Define the properties of the portable digital file.	Setting of export parameters according to the portable file versions and ISO standards Distillation software export settings: inclusion of fonts, image resolution and compression, colour space and image conversion, etc. Black density setting Colour and image transparency settings, etc.
• Correct objects causing problems.	Types of problem-causing objects: incorrect colour assignment, inconsistent image resolutions, failure to respect proportions, incompatibility with printing standards, font conflicts, etc. Determination of simple, effective solutions, insertion of corrections (see above) and validation of corrections
4. Produce prepress proofs.	
• Impose the document.	See competency 16
• Prepare the files for finishing and validate the proofs.	See competency 16
• Rasterize the document.	See competency 18
5. Give approval for print run.	
• Evaluate the press proof based on the project specifications.	Verification of marks, trim lines and control bars Verification of imposition, squaring, colour, finishing, overlaps, etc. Types of print errors for different media
• Have the print order approved.	Self-assertion and the importance of a respectful attitude toward others Observance of deadline

6. Archive the material.
   - Classify the files and manage the folders. See competency 2

Managing a Graphic Communications Microbusiness	Code: 965216

Competency 21 Duration 90 hours Credits 6

Behavioural Competency

Statement of the Competency	**Achievement Context**
Manage a graphic communications microbusiness.	• Using documentation from suppliers, including catalogues, price lists, etc. • Using model contracts, forms and administrative documents • Using software
Elements of the Competency	**Performance Criteria**
1. Organize their workspace.	• Proper establishment of equipment and materials acquisition and replacement plans • Appropriate choice of suppliers • Appropriate ordering of supplies • Observance of budget • Functional and ergonomic organization of physical space • Functional organization of virtual space
2. Produce promotional materials.	• Proper creation of portfolio • Proper creation of Web site, stationery and résumé • Emphasis on personal skills • Demonstration of creativity
3. Seek out business opportunities.	• Accurate analysis of the competition • Correct determination of services to offer • Correct determination of strategies for emphasizing achievements • Proper preparation of a list of resource people and potential clients
4. Enter competitions.	• Proper preparation of submissions • Appropriate choice of work to present • Proper preparation of presentation texts

5. Prepare a service offer.	• Appropriate consultation of resource people • Correct determination of production parameters • Correct determination of types of supplies • Correct determination of the type of personnel and services to outsource • Choice of appropriate suppliers • Realistic determination of production time • Accuracy of calculations • Clear and precise service offer • Use of appropriate technical documentation • Observance of the client's budget • Observance of profit margin
6. Present a service offer.	• Quality of language • Clarity of remarks • Demonstration of listening skills and attentiveness • Appropriate responses to questions and comments • Appropriate use of sales techniques
7. Prepare a contract for the client.	• Use of appropriate model document • Proper adaptation of contract clauses • Inclusion of all appropriate information • Proper spelling and grammar
8. Provide administrative follow-up to activities.	• Appropriate follow-up of copyrights • Proper management of expenses and income • Proper invoicing of services • Proper preparation of government returns
9. Plan a personal career path.	• Appropriate research into sources of ongoing training and new developments in the field • Correct and realistic determination of activities for upgrading skills • Demonstration of open-mindedness
	For the competency as a whole: • Appropriate use of software • Appropriate personal appearance • Observance of professional ethics

Suggestions for Competency-Related Knowledge and Know-How

The following is a summary of the knowledge related to each element, along with the attendant guidelines.

1. Organize their workspace.

• Draw up plans to purchase and replace materials and equipment, and place the orders.	Identification of needs and inventory Preparation of a realistic budget for office supplies, and search for suppliers Management of office supplies
• Organize their physical and virtual workspace.	See competency 2

2. Produce promotional materials.

• Create a portfolio.	Role of the portfolio Paper and digital portfolio Choice of work to include in the portfolio Sequence and presentation of achievements in the portfolio Personalization and standardization of the portfolio Emphasis on personal skills and creativity
• Create a Web site, stationery or résumé.	Types of résumé, content and introductory letter Stationery: information to include, design and page layout Web page: information to include, design, page layout and online layout Emphasis on personal skills and creativity

3. Seek out business opportunities.

• Analyze the competition.	Sources of information: publications, Internet, personal and professional contacts, etc. Strengths and weaknesses of the competition
• Choose the services to offer and strategies for emphasizing their achievements.	Determination of services based on personal interests, strengths and weaknesses
• Prepare a list of resource people and potential clients.	Resource people: other computer graphics designers, graphic designers, photographers, printers, multimedia integrators, etc. Bank of potential clients based on the chosen niche

4. Enter competitions.

• Prepare submissions.	Use of competition entry forms Candidacy criteria: format of work to submit, observance of deadlines, etc.
• Select the work to submit.	See above

• Prepare presentation texts.	Emphasis on personal skills and creativity
5. Prepare a service offer.	
• Determine the production parameters.	Difference between a call for bids, specifications and a bid Small or large print run, publication, visual interfaces, packaging, etc. Production parameters and schedule: determination of steps and their duration, inclusion of buffer days, verification of subcontractor availability, etc.
• Determine the type of supplies, personnel and services to outsource.	Identification of resource people: see above Use of technical documentation Cost of subcontractors and supplies Choice of suppliers Hourly rate Interpretation of subcontractors' price lists Points for comparison: types of services provided, materials used, delivery dates, reputation, etc.
• Prepare a service offer.	Estimate of costs: visual content, number of proofs, printing, etc. Importance of terminology, accurate calculations, the client's budget and the profit margin Content of the proposal: introduction, technical data, price, timeframe, etc. Writing and presentation standards Submission methods
6. Present a service offer.	
• Introduce themselves.	Attitude to adopt Importance of physical appearance, clothing and personal hygiene
• Talk to the potential client.	Information at the client's disposal Use of sales techniques: arguments based on the client's needs, treatment and anticipation of objections Comparison between services offered and existing services Importance of speech quality, clarity of remarks and listening skills and attentiveness: See competency 5
7. Prepare a contract for the client.	
• Write a draft contract.	Model contracts and information to include: description of products and services, clauses, information on the client, etc. Copyright Professional ethics

8. Provide administrative follow-up to activities.

• Manage expenses and income.	Elements of a bank statement Verification of cheques issued and invoices Follow-up of copyrights
• Generate invoices.	Detailed description of products and services Calculation of fees and taxes Ethics applicable in accounting
• Prepare returns.	GST and PST returns, tax returns, etc.

9. Plan a personal career path.

• Research sources of ongoing training and new developments in the field.	Sources to consult Market trends Consequences of new technology for the business' survival and competitiveness Attitudes to develop regarding change
• Identify skills upgrading activities.	Seminars offered by associations and suppliers Training workshops and online training

Workplace Integration	Code: 965228

Competency 22 Duration 120 hours Credits 8

Situational Competency

Statement of the Competency

Integrate into the workplace.

Elements of the Competency

- Familiarize themselves with the occupation as it is practised in a computer graphics company.
- Incorporate the knowledge, skills, attitudes and habits acquired during training.
- Become aware of the different changes in perception that result from a practicum in the workplace.

Learning Context

Information Phase

- Learning about the terms and conditions of the practicum.
- Identifying companies that are likely to take on students for a practicum.
- Preparing to undergo a work experience in a computer graphics company.

Participation Phase

- Observing the work environment.
- Performing or taking part in various work-related tasks.
- Keeping a log of their observations of the work environment and tasks performed during the practicum.

Synthesis Phase

- Identifying the aspects of the occupation that correspond to the training received, and those that do not.
- Discussing the influence of this experience on choice of a future job: aptitudes and interests.

Instructional Guidelines

- Maintain close collaboration between the school and the host company.
- Provide the information required to prepare for the practicum and produce the log.
- Make it possible for students to perform work-related tasks.
- Provide periodic supervision of the students during the practicum.
- Make sure someone at the host company is responsible for supervising the students.
- Intervene if problems or difficulties arise.
- Encourage discussion among the students.

Participation Criteria

Information Phase

- Gather information on the practicum and on how the company is structured.
- Try to understand the practical organization of the practicum and the responsibilities assigned to them.

Participation Phase

- Comply with the company's instructions concerning the tasks that a student is allowed to perform, work schedules, occupational health and safety rules and rules governing professional ethics.
- Use the available computer tools.
- Carefully write down information on the work environment and tasks performed at the company.

Synthesis Phase

- Discuss their experience in the workplace with other students.

Suggestions for Competency-Related Knowledge and Know-How

The following is a summary of the knowledge, skills, strategies, attitudes and perceptions related to each phase of the learning context, along with the attendant guidelines.

Information Phase

• Learn about the terms and conditions of the practicum.	Objectives and duration of the practicum Support and supervision Participation requirements and criteria Agreement concerning practicum conditions
• Identify companies that are likely to take on students for a practicum.	Consultation of documentation on computer graphics companies
• Prepare to undergo a work experience in a computer graphics company.	Company structure and rules Work schedule and special instructions

Participation Phase

• Observe the work environment.	Points to observe: operation of the graphic chain, graphic communications products, requirements relating to printing and electronic distribution, production techniques: See competency 5
• Perform or take part in various work-related tasks.	Performance of or contribution to the task Use of computer tools: See competency 2 Occupational health and safety rules
• Keep a log of their observations of the work environment and tasks performed during the practicum.	Use of the log: profile of the company and first impressions, observations, list of tasks performed, special situations and reactions

Workplace Integration	Code: 965228

Synthesis Phase

• Identify the aspects of the occupation that correspond to the training received, and those that do not.	Comparison of training with the tasks performed during the practicum: See competencies 1 and 5
• Discuss the influence of this experience on choice of a future job: aptitudes and interests.	Rules governing group discussion and identification of interests and aptitudes: See competency 1

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