Technical Education Program

221.A0

Architectural Technology

Training Sector

7

Buildings and Public Works

Reachfor
your**Dreams**

Québec

Architectural Technology

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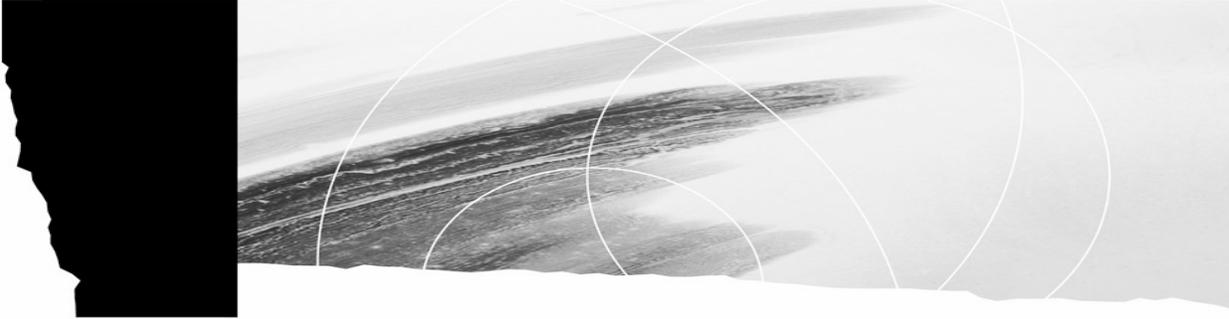Cégep du Vieux Montréal

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Year of approval: 2003

Certification:	Diploma of College Studies
Number of credits:	91 2/3 credits
Total duration:	2 760 hours of instruction

| General education components: | 660 | hours of instruction |
| Program-specific component: | 2 100 | hours of instruction |

Conditions for Admission:

To be admitted to the program, students must meet the general conditions for admission set out in section 2 of the *College Education Regulations*, as well as the following requirements, if applicable:

- Mathematics 436
- Physical Science 436

Introduction to the Program

The *Architectural Technology* program is in keeping with the aims and orientations of technical education that guide the Ministère de l'Éducation. Designed in accordance with the framework for developing technical programs, this program is based on competencies, formulated in terms of objectives and standards.

The *Architectural Technology* program includes a general education component common to all programs (16 2/3 credits), a general education component adapted to this program (6 credits), a complementary general education component (4 credits) and a program-specific component of 65 credits.

The program-specific component was also designed according to the framework for developing technical programs. This approach requires the participation of people working in the field and in education, and takes into account training needs, the job analysis and the general goals of technical education. The objectives and standards serve as the basis for the definition and the evaluation of learning activities, for which the colleges are responsible.

By successfully completing this program of study, students acquire not only the entry-level competencies required by the workplace to practise a trade or occupation, but also a range of knowledge, skills and attitudes that will ensure the students' versatility.

General Education Component Common to All Programs   **(16 2/3 credits)**

0004   To analyze and produce various forms of discourse.

0005   To apply a critical approach to literary genres.

0006   To apply a critical approach to a literary theme.

00B2   To apply a logical analytical process to how knowledge is organized and used.

000G   To apply a critical thought process to world-views.

0017   Appliquer les notions de base de la communication en français courant.

or

000A   Communiquer en français avec une certaine aisance.

or

000B   Communiquer avec aisance en français.

or

000C   Traiter d'un sujet culturel et littéraire.

0064   To establish the role that being physically active plays amongst the lifestyle behaviours which promote health.

0065   To improve one's effectiveness when practising a physical activity.

0066   To demonstrate one's responsibility for being physically active in a manner which promotes health.

General Education Component Adapted to This Program   (6 credits)

000L   To communicate in the forms of discourse appropriate to one or more fields of study.

000U   To apply a critical thought process to ethical issues relevant to the field of study.

0018   Appliquer des notions fondamentales de la communication en français, liées à un champ d'études.

or

000Q   Communiquer en français dans un champ d'études particulier.

or

000R   Communiquer avec aisance en français dans un champ d'études particulier.

or

000S   Disserter en français sur un sujet lié au champ d'études.

Complementary General Education Component   (4 credits)

000V   To determine the contribution of the social sciences to an understanding of contemporary issues.

000W   To analyze one of the major problems of our time using one or more social scientific approaches.

000X   To explain the general nature of science and technology and some of the major contemporary scientific or technological issues.

000Y   To resolve a simple problem by applying the basic scientific method.

000Z   To communicate with limited skill in a modern language.

0010   To communicate on familiar topics in a modern language.

0067   To communicate with relative ease in a modern language.

0011   To recognize the role of mathematics or informatics in contemporary society.

0012   To use various mathematical or computer concepts, procedures and tools for common tasks.

0013   To consider various forms of art produced by aesthetic practices.

0014   To produce a work of art.

0350	To analyze the job function.
0351	To interpret drawings and specifications.
0352	To make preliminary sketches.
0353	To produce presentation materials.
0354	To research technical information.
0355	To carry out building calculations.
0356	To ensure the compliance of a building or a building plan with the Construction Code as well as with the laws, regulations and standards in force.
0357	To issue a technical report concerning the types of construction and building systems.
0358	To communicate with the project partners.
0359	To assume their responsibilities concerning on-site occupational health and safety.
035A	To assess the architectural characteristics of a building project.
035B	To carry out building surveys.
035C	To make presentation drawings.
035D	To make working drawings.
035E	To ensure the consistency of project documents.
035F	To analyze a problem relative to a building.
035G	To design the construction details.
035H	To write the specifications for a project.
035J	To estimate construction costs.
035K	To do a condition assessment for a building.
035L	To coordinate construction work.
035M	To carry out project management activities.
035N	To prepare a project design.

Glossary

Program

A program is an integrated set of learning activities leading to the achievement of educational objectives based on set standards (*College Education Regulations,* section 1).

Competency

In the program-specific component of a technical program: a competency is the ability to act successfully and evolve in order to adequately perform work-related tasks and activities based on an organized body of knowledge, skills in a variety of fields, perceptions, attitudes, etc. (*Élaboration des programmes d'études techniques*, *Cadre-général – Cadre technique 2002*, p. 15).

Objective

An objective encompasses the competency, skills or knowledge to be acquired or mastered (*College Education Regulations,* section 1). It describes the competency to be acquired and includes the statement of the competency as well as the elements needed to understand it.

Statement of the Competency

In the program-specific component of a technical program, a statement of the competency is derived from the job analysis, the general goals of technical education and, in certain cases, other determinants. In the general education components, the statement of the competency is the result of an analysis of general education needs.

Elements of the Competency

In the program-specific component of a technical program, the elements of the competency include only what is necessary in order to understand the competency. They specify the major steps involved in carrying out a task or the main aspects of the competency.

In the general education components, the elements of the objective, formulated in terms of a competency, specify the main aspects of the competency. They include only what is necessary in order to understand and attain the competency.

Standard

A standard is the level of performance at which an objective is considered to be achieved (*College Education Regulations,* section 1).

Achievement Context

In the program-specific component of a technical program, the achievement context corresponds to the situation in which the competency is exercised at entry level on the job market. The achievement context does not specify the context for learning or evaluation.

Performance Criteria

In the program-specific component of a technical program, the performance criteria define requirements by which to judge the attainment of each element of the competency and, consequently, of the competency itself. The performance criteria are based on the requirements at entry level on the job market. The performance criteria are not the evaluation instrument but, rather, they serve as a reference for the development of the evaluation instrument. Each element of the competency requires at least one performance criterion.

In the general education components, the performance criteria define the requirements for recognition of the attainment of the standard.

All the criteria must be respected for the objective to be recognized as having been attained.

Learning Activities

In the program-specific component of a technical program, the learning activities are classes (or labs, workshops, seminars, practicums or other educational activities) designed to ensure the attainment of the targeted objectives and standards. Colleges are entirely responsible for defining the learning activities and organizing the way in which programs are offered.

In the general education components, the elements of the learning activities that may be determined in whole or in part by the Minister are the field of study, the discipline(s), the weightings, the total hours of instruction, the number of credits and any details deemed essential.
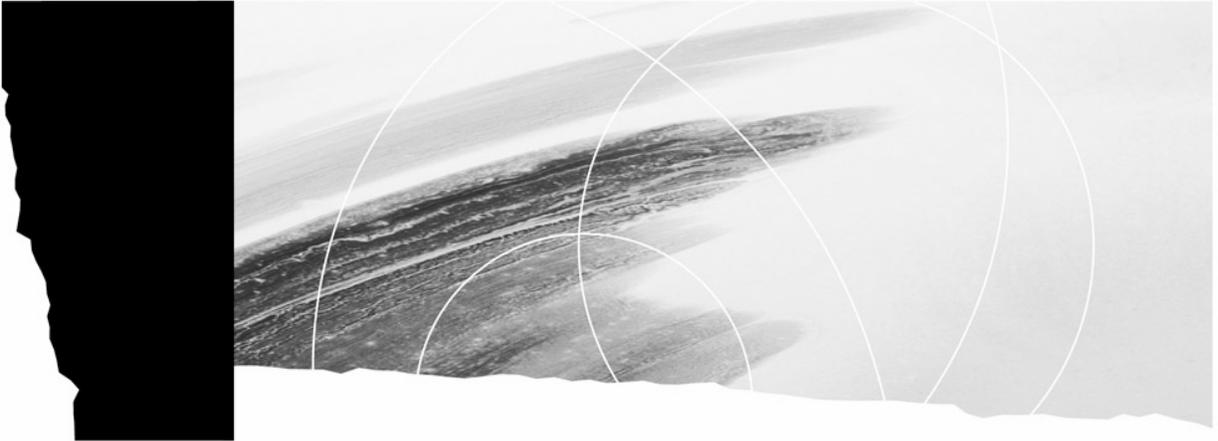
Part I

Goals of the General Education Components

In Québec, college is the next stage after the compulsory years of schooling in elementary and secondary school, during which students acquire basic knowledge and skills. It represents a major crossroads in that it places greater emphasis on the cultural content of education and leads directly to the job market or to university. The college system meets current needs with respect to technical and pre-university education. It allows students to further their education without narrowing their options, since they may switch from one type of program to the other. Finally, it provides students with a well-rounded, balanced education.

General education is an integral part of every program and comprises three components: a component common to all programs, a component adapted to the particular program and a complementary component. The aim of general education is threefold: to provide students with a common cultural core, to help them learn and develop generic skills, and to foster desirable qualities and attitudes. Its purpose is to educate students as individuals, to prepare them for their role as responsible members of society and to enable them to share in the common cultural heritage.

Common Cultural Core

The common cultural core is intended to help students:

- master the language of instruction as a tool for communication and reflection
- master the basic rules of rational thought, discourse and argumentation
- communicate in another language, primarily French or English
- be open to the world and to cultural diversity
- appreciate the riches of our cultural heritage through awareness of the accomplishments of human civilization
- relate to major currents in the history of human thought
- think independently and critically
- develop personal and social ethics
- acquire the knowledge essential for their physical and intellectual well-being
- become aware of the need to develop habits conducive to good health

Generic Skills

General education allows students to acquire and develop the following generic skills:

- conceptualization, analysis and synthesis
- coherent reasoning
- critical judgment
- articulate expression
- the ability to apply what they have learned to the analysis of situations
- the ability to apply what they have learned to decision making
- work methods
- the ability to reflect on what they have learned

Desirable Qualities and Attitudes

The common cultural core and generic skills help students acquire and develop the following qualities and attitudes:

- autonomy
- a critical sense
- awareness of their responsibilities toward themselves and others
- open-mindedness

- creativity
- openness to the world

These goals apply to the three general education components:

- General education component common to all programs, which is allotted 16 2/3 credits distributed as follows:

  – language of instruction and literature: 7 1/3 credits
  – humanities or *philosophie*: 4 1/3 credits
  – physical education: 3 credits
  – second language: 2 credits

- General education component adapted to programs, which introduces tasks or learning situations that are relevant to the program-specific component of a program. The breakdown of credits, for a total of 6, is as follows:

  – language of instruction and literature: 2 credits
  – humanities or *philosophie*: 2 credits
  – second language: 2 credits

- Complementary general education component, which provides students with learning activities chosen to balance their training and complement the program-specific component. Students may choose courses for a total of 4 credits in the following areas:

  – social sciences
  – science and technology
  – modern languages
  – mathematics and computer literacy
  – art and aesthetics

The knowledge and skills acquired in the general education components should be emphasized and, whenever possible, applied in the program-specific component, and vice-versa. Thus, general education and the program-specific component of a program enhance each other as they contribute to the students' overall education.

Each college-level institution must provide general education through learning activities that are consistent with its educational project, in keeping with the aims, subject areas and ministerial guidelines provided.

The objectives and standards in the general education components were developed according to the provisions of the *College Education Regulations* (R.S.Q., c. C-29, s. 18).

Educational Aims of the General Education Components

The educational aims describe how each field of study in the common, adapted and complementary components of general education contributes to achieving the goals of general education. For the common and adapted components, the educational aims include a general statement of the role of each field of study; the principles underlying this role; the expected outcomes that define, in terms of cultural knowledge, generic skills, and qualities and attitudes, the contribution of each field to the achievement of the goals of general education; and an explanation of the sequence of objectives and standards.

General Education Common to All Programs and General Education Adapted to Programs

English, Language of Instruction and Literature

General Education Common to All Programs

The three sets of objectives and standards in English, Language of Instruction and Literature, pursue two general goals: mastery of the language of instruction and exploration of the riches of the literary heritage. Achievement of these goals is intended to bring the students to a college level of proficiency in the areas of reading, writing, listening and speaking. Building on the skills developed by students on completion of secondary school, the English program places a marked emphasis on written production and reading comprehension while at the same time consolidating listening and speaking skills.

The mastery of language skills will be achieved through regular and ongoing observance of the rules of correct writing and speaking and the production of texts, supported by reading and the study of literature. Students will also be encouraged to develop an appreciation of literature by becoming acquainted with a number of significant literary works representative of various genres and periods and expressing a variety of literary themes. Both the aesthetic and cultural value of these texts and their formal aspects will be the objects of study.

All students entering college will begin their English studies with an introductory set of objectives and standards. This set has two possible formats. While both provide a range of reading, writing and literary activities, one includes additional reinforcement of reading and writing skills.

General Education Adapted to Programs

The set of objectives and standards for English, Language of Instruction and Literature, is placed in the context of general education and is a complement to the general education common to all programs. Students will develop the skills required in order to communicate in the forms of discourse appropriate to their field of study.

Expected Outcomes

Students, who have achieved the general education objectives in English, Language of Instruction and Literature, will be able to:

- demonstrate a college level of proficiency in the areas of reading, writing, listening and speaking
- develop their own ideas into arguments and theses, organize them and edit their work
- understand basic vocabulary and terminology used when discussing literature
- analyze literary works

Humanities

Humanities, as part of the core curriculum, is intended to promote personal and social development and to give students a foundation that will help them understand their roles in contemporary society as members of the labour force, citizens and individuals. The three sets of objectives and standards in Humanities propose common frameworks for understanding the experiences, ideas and values of human beings and their diversity. They are aimed at developing critical thinking, reinforcing the ancillary skills involved in careful reading, organized writing, and well-developed oral presentations, and, where appropriate, improving media and computer literacy. Once students have mastered the three-stage process of analysis, synthesis and evaluation, they will be able to reflect in an informed manner and to communicate what they have learned in an organized and coherent fashion.

Principles

1) Humanities constitutes a thematic, multidisciplinary, at times transdisciplinary, exploration of the human experience, including its accomplishments, failures, abilities, creations, ideas and values.

2) Humanities helps students to recognize, define and classify information and provides them with common frameworks for diverse methods of analyzing, synthesizing and evaluating conceptions of society, knowledge and values.

3) Humanities aims to prepare students for common civic responsibilities and the exercise of rights.

4) Humanities pursues the general goal of developing critical thought, valuing it and recognizing its limitations.

Expected Outcomes

Students who have achieved the general education objectives in Humanities will be able to:

- describe, explain and organize main elements, ideas, values and implications of a world-view in a coherent fashion
- compare world-views
- recognize the basic elements in a specific example of the organization, transmission and use of knowledge
- define the dimensions, limits, and uses of knowledge in appropriate historical contexts
- identify, organize and synthesize the salient elements of a particular example of knowledge
- situate important ethical and social issues in their appropriate historical and intellectual contexts
- explain, analyze and debate ethical issues in a personal and professional context

Sequence of Objectives and Standards

The first two sets of objectives and standards in Humanities, which are part of the general education component common to all programs, develop similar skills in a recursive fashion.

In the first set the emphasis is on how knowledge is defined, acquired, classified, transmitted and applied. Students examine both messages and media to identify the strengths and limitations of each. Students learn to situate knowledge in a social, historical and personal context, a skill they will need in order to become lifelong learners.

The second set focuses on how individuals, groups, societies or nations organize ideas, perceptions and values into explanatory patterns. Students explore major ideas and value systems by which diverse individuals, groups, societies or nations seek to explain the world and their place in it.

The third set, which is part of the general education component adapted to programs, is aimed at deepening and reinforcing the critical thinking skills developed in the first two sets. It is, therefore, sequenced so that students can build on the critical skills, knowledge and insights developed in the first two sets. By situating these issues in their appropriate world-view and knowledge contexts, students

develop a critical and autonomous approach to ethical values in general and to the values involved in their own fields of interest in particular. This final set also provides students with an opportunity to consolidate personal and social values.

Français, langue seconde

L'enseignement du français, langue seconde, contribue à la formation fondamentale de la personne, en même temps qu'il a pour objet de lui permettre de communiquer efficacement avec ses concitoyens et concitoyennes.

Principes

1) La maîtrise du français, langue seconde, est essentielle pour quiconque veut participer pleinement à la vie de la société québécoise, dont le français est la langue officielle. En conséquence, la formation générale en français, langue seconde, a pour finalité de rendre les étudiants et les étudiantes aptes à utiliser de façon efficace les moyens dont dispose la langue pour communiquer en société. À cette fin, ils devront acquérir des connaissances en vue de les déployer dans les formes de discours qu'il leur faudra pratiquer.

2) À leur arrivée au collégial, les étudiants et les étudiantes ont déjà acquis des compétences dans les quatre habiletés langagières, à savoir : parler, lire, écouter et écrire, mais sont, de façon générale, plus compétents en matière d'expression orale. En conséquence, la formation porte sur le développement des quatre habiletés langagières tout en mettant l'accent sur la lecture et l'écriture.

3) En tant que partie intégrante de la formation générale, le français, langue seconde, contribue au développement de la pensée critique et de l'expression structurée.

Résultats attendus

Tout étudiant ou toute étudiante qui a atteint les objectifs de formation générale en français, langue seconde, pourra, selon son niveau de compétence, montrer :

- que, sur le plan des connaissances, il ou elle :
  – sait faire une présentation orale structurée;
  – connaît les différentes formes du discours;
  – connaît les différentes techniques de lecture et d'écriture;

- que, sur le plan des habiletés, il ou elle :
  – est capable de questionner, d'analyser, de juger, et d'argumenter en français;
  – est apte à entretenir des rapports sociaux et à partager la vie culturelle du Québec;
  – est apte à établir, à poursuivre et à pratiquer des rapports professionnels en français;

- que, sur le plan des qualités et des attitudes à développer, il ou elle :
  – fait preuve d'ouverture par rapport aux différents aspects de la culture québécoise;
  – a conscience des différences et des similitudes entre sa culture d'origine et la culture québécoise francophone;
  – a la préparation voulue pour s'insérer dans la vie sociale et économique.

Séquence des objectifs et des standards

Pour répondre aux divers besoins d'apprentissage des étudiants et des étudiantes du collégial, les ensembles en français, langue seconde, sont répartis selon quatre niveaux. Chacun de ces niveaux permet d'amener les étudiants et les étudiantes à interpréter et à produire des textes de plus ou moins grande complexité.

La formation générale en français, langue seconde, comporte deux ensembles prévus en séquence. Le premier, qui fait partie de la formation générale commune à tous les programmes, a pour objet de

consolider les connaissances linguistiques déjà acquises et de les développer pour amener les étudiants et les étudiantes à communiquer de façon plus précise sur le plan tant du vocabulaire et de la syntaxe que de l'organisation textuelle.

Le second ensemble, qui fait partie de la formation générale propre aux programmes, s'appuie sur les acquis développés dans le premier ensemble en les enrichissant d'éléments de compétence liés aux champs d'études de l'étudiant ou de l'étudiante. On cherche à développer la précision de l'expression dans des situations de communication particulières qui relèvent du champ d'études de l'étudiant ou de l'étudiante.

Physical Education

Physical Education is aimed at promoting the development of the whole person and encouraging students to acquire responsible behaviours with respect to their health and quality of life.

Principles

1) Physical Education introduces students to different ways of being physically active with a view to making them aware that they are responsible for their health. Students learn concepts and acquire knowledge drawn from research, and methodically apply them to physical activities that will lead them to adopt healthy lifestyle practices.

2) Physical Education enables students to improve their efficiency in an activity and, in doing so, serves to increase their motivation and perseverance to remain physically active, and makes them aware of the contributing factors. To this end, students use a learning process designed to enhance their aptitudes (i.e. their skills and attitudes) for a given physical activity.

3) Physical Education helps students take responsibility for their own health through the maintenance and improvement of their physical fitness and through the sensible practice of physical activity. Students learn to combine being physically active in an effective manner with other factors that promote health.

4) Physical Education makes students aware of the importance of sharing the knowledge and behaviours they have acquired. The pleasure and sense of well-being students get out of Physical Education classes motivate them to encourage others to be physically active and to adopt healthy practices.

Expected Outcomes

Students who have achieved the general education objectives in Physical Education will be able to demonstrate:

- their knowledge of:
  - the relationship between physical activity, lifestyle and health based on the findings of scientific research
  - the scientific principles for improving or maintaining physical fitness
  - ways to assess their abilities and needs with respect to activities that can improve their health
  - the rules, techniques and conditions involved in different types of physical activity
  - a method for setting goals
  - the factors that help make physical activity part of their lifestyle

- the skills that will enable them to:
  - choose physical activities on the basis of their motivation, abilities and needs
  - establish relationships between lifestyle and health
  - apply the rules, techniques and conditions involved in different types of physical activity
  - set goals that are realistic, measurable, challenging, and situated within a specific time frame

- improve their mastery of the basic techniques, tactics and strategies associated with sports, outdoor and expression-oriented activities
- use their creative and communication skills, particularly in group activities
- evaluate their skills, attitudes and progress with respect to different forms of physical activity
- maintain or increase their level of physical activity and fitness on their own
- manage a personal physical activity program and assume responsibility in the organization of physical activities

- the attitudes and qualities that will enable them to:
  - understand the importance of taking responsibility for their health
  - be aware of the need to evaluate and respect their abilities and the conditions for carrying out an activity, before undertaking the activity
  - recognize the importance of self-confidence, self-control, respect for others and cooperation, through knowledge they have acquired and through participation in physical activity
  - respect the environment in which the activities are held
  - appreciate the aesthetic and play value of physical activity
  - promote a balanced and active lifestyle as a social value

Sequence of Objectives and Standards

The three sets of objectives and standards in Physical Education are designed in a learning sequence. The first two are prerequisites for the third.

The first set focuses on the relationship between health and physical activity as related to a healthy lifestyle. Students are required to try one or more activities and to relate them to their abilities, needs, motivation, lifestyle and knowledge of health prevention. This enables them to make an appropriate and justified choice of activities.

The second set looks at the improvement of effectiveness through the use of a goal-oriented approach in a sports, outdoor or expression-oriented activity. After making an initial assessment of their abilities and attitudes, students are called upon to evaluate them with respect to a physical activity, to set goals and to interpret their progress.

The third set is aimed at helping students integrate physical activity into their lifestyle, more particularly through more effective management of factors that facilitate such integration. During the hours of instruction, students apply the knowledge they have acquired in the first two sets of objectives. This is done through the safe and effective practice of physical activity and through the development, realization and evaluation of a personal physical activity program, which students follow and validate under their teacher's supervision. The hours allotted for individual work enable students to complete their personal programs.

Complementary General Education

Social Sciences

The two sets of objectives and standards aim to familiarize students with the social sciences and their particular approach to the human condition.

The first set supports learning activities that allow students to look at one or more of the social sciences in relation to major contemporary issues: subjects studied in the social sciences; contribution of the social sciences to an understanding of contemporary issues; issues facing the social sciences in the future.

The second set supports learning activities in the social sciences that allow students to rigorously analyze one of the major problems of our time, using one or more social scientific approaches.

Science and Technology

In Science and Technology, the educational aim is to present science and technology as a specific approach to reality in order to familiarize students with this field of knowledge. This general intention can take several forms, such as helping students gain experience with the scientific method or study the evolution, challenges and consequences of scientific and technological discoveries.

The first set of objectives and standards emphasizes the general nature and scope of science and technology. The second set emphasizes using the scientific method.

Modern Languages

The three sets of objectives and standards in Modern Languages introduce students to the basic language structures and vocabulary of a third language while making them aware of the culture of the people who speak the language.

Because some modern languages use different structures and writing systems, the three sets of objectives and standards have been designed accordingly. The degree of competency acquisition will therefore vary according to how distant the language is from our own language or system of thought. Furthermore, awareness of the culture of the people using a modern language does not figure as an element of competency, since learning a modern language necessarily implies developing such awareness.

Mathematics and Literacy Computer Science

In Mathematics and Literacy Computer Science, the two sets of objectives and standards are based on the aim of developing mathematical and computer culture.

The educational aim of the first set is to lead students to consider the place, role and evolution of this knowledge and these tools in our society and to describe their different uses. It consists of general education about the language of mathematics or computers, and does not include specialized training.

The second set targets the understanding and use of the language of mathematics or computers for everyday purposes. This intention refers mainly to the concepts, tools and general uses of mathematical or computer language in daily life.

Since the objectives and standards for the field of mathematics literacy and computer science are quite general, they can be used to define various learning activities that foster the development of competencies in mathematics or computer science, or in a combination of these two areas.

Art and Aesthetics

The educational aim of Art and Aesthetics is to help students to acquire general cultural knowledge by exploring various forms of art in one or more artistic fields. This basic education is intended to develop an artistic sensibility through exposure to works of art or experimentation in an artistic medium. Furthermore, it aims to teach the basic elements of the language of art and to enable students to make connections between those elements.

Through the first set of objectives and standards, students are introduced to works of art from contemporary culture and from other periods. This allows them to develop an appreciation for the dynamics of the imagination in art and to learn methods of analyzing artistic production.

Though the second set, students engage in creative or interpretive activities in a given artistic medium. As well, students are introduced to artistic works in that medium so that they may learn to recognize its primary forms of expression.

Language of Instruction and Literature	Code: 0004

Objective   *Standard*

Statement of the Competency

To analyze and produce various forms of discourse.

Elements of the Competency	Performance Criteria
1. To identify the characteristics and functions of the components of discourse.	• Accurate explanation of the denotation of words • Adequate recognition of the appropriate connotation of words • Accurate definition of the characteristics and function of each component
2. To determine the organization of facts and arguments of a given discourse.	• Clear and accurate recognition of the main idea and structure • Clear presentation of the strategies employed to develop an argument or thesis
3. To prepare ideas and strategies for a projected discourse.	• Appropriate identification of topics and ideas • Adequate gathering of pertinent information • Clear formulation of a thesis • Coherent ordering of supporting material
4. To formulate a discourse.	• Appropriate choice of tone and diction • Correct development of sentences • Clear and coherent development of paragraphs • Formulation of a 750-word discourse
5. To edit the discourse.	• Thorough revision of form and content

Learning Activities

Discipline: English
Weighting: 2-2-4 or 1-3-4
Credits: 2 2/3

Language of Instruction and Literature	Code: 0005

Objective   *Standard*

Statement of the Competency

To apply a critical approach to literary genres.

Elements of the Competency	Performance Criteria
1. To distinguish genres of literary discourse.	• Clear recognition of the formal characteristics of a literary genre
2. To recognize the use of literary conventions within a specific genre.	• Accurate recognition of the figurative communication of meaning • Adequate explanation of the effects of significant literary and rhetorical devices
3. To situate a discourse within its historical and literary period.	• Appropriate recognition of the relationship of a text to its period
4. To explicate a discourse representative of a literary genre.	• Selective use of appropriate terminology • Effective presentation of a 1000-word integrated response to a text

Learning Activities

Discipline: English
Weighting: 2-2-3
Credits: 2 1/3

Language of Instruction and Literature	Code: 0006

Objective   *Standard*

Statement of the Competency

To apply a critical approach to a literary theme.

Elements of the Competency	Performance Criteria
1. To recognize the treatment of a theme within a literary text.	• Clear recognition of elements within the text which define and reinforce a theme and its development • Adequate demonstration of the effects of significant literary and rhetorical devices
2. To situate a literary text within its cultural context.	• Appropriate recognition of a text as an expression of cultural context • Adequate demonstration of the effects of significant literary and rhetorical devices
3. To detect the value system inherent in a literary text.	• Appropriate identification of expression (explicit/implicit) of a value system in a text
4. To explicate a text from a thematic perspective.	• Selective use of appropriate terminology • Effective presentation of a 1000-word integrated response to a text

Learning Activities

Discipline: English
Weighting: 2-2-3
Credits: 2 1/3

Humanities	Code: 00B2

Objective	*Standard*

Statement of the Competency

To apply a logical analytical process to how knowledge is organized and used.

Elements of the Competency	**Performance Criteria**
1. To recognize the basic elements of a field of knowledge.	• Appropriate description of the basic elements • Appropriate use of terminology relevant to fields of knowledge
2. To define the modes of organization and utilization of a field of knowledge.	• Adequate definition of the dimensions, limits and uses of fields of knowledge
3. To situate a field of knowledge within its historical context.	• Accurate identification of the main components in the historical development of fields of knowledge • Accurate description of the effects of historical development and societal milieu on the limitations and uses of a field of knowledge
4. To organize the main components into coherent patterns.	• Coherent organization of the main components
5. To produce a synthesis of the main components.	• Appropriate analysis of the components • Coherent synthesis of the main components • Appropriate expression, including a significant individual written component, of an analysis of the context, importance and implications of the organization and uses of knowledge

Learning Activities

Discipline: Humanities
Weighting: 3-1-3
Credits: 2 1/3

Humanities	Code: 000G

Objective	*Standard*

Statement of the Competency

To apply a critical thought process to world-views.

Elements of the Competency	**Performance Criteria**
1. To describe world-views.	• Accurate description of a society or group with a distinctive world-view • Appropriate use of terminology relevant to these societies or groups
2. To explain the major ideas, values and implications of a world-view.	• Adequate explanation of the salient components of a world-view
3. To organize the ideas, values and experiences of a world-view into coherent patterns.	• Coherent organization of ideas about a world-view • Appropriate expression, including a significant individual written component, of an analysis of the context, importance and implications of world-views
4. To compare world-views.	• Comparative analysis of these world-views • Appropriate inclusion of central elements, relationships and organizational principles of the societies or groups in the analysis

Learning Activities

Discipline: Humanities
Weighting: 3-0-3
Credits: 2

Langue seconde (niveau I)	Code: 0017

Objective	*Standard*

Statement of the Competency

Appliquer les notions de base de la communication en français courant.

Elements of the Competency	**Performance Criteria**
1. Dégager le sens d'un message oral simple.	• Repérage précis des difficultés de compréhension du message. • Utilisation pertinente des techniques d'écoute choisies. • Distinction précise du sens général et des idées essentielles du message. • Description précise du sens général et des idées essentielles du message.
2. Émettre un message oral simple.	• Repérage précis des difficultés d'expression. • Utilisation pertinente des techniques d'expression orales choisies. • Emploi pertinent du vocabulaire courant. • Expression intelligible du propos.
3. Dégager le sens d'un texte.	• Repérage précis des difficultés de compréhension du texte. • Utilisation pertinente des techniques de lecture choisies. • Distinction claire des principaux éléments du texte. • Description précise du sens général et des idées essentielles d'un texte de 500 mots.
4. Rédiger un texte simple.	• Repérage précis des difficultés d'écriture. • Utilisation pertinente des techniques d'écriture choisies. • Emploi pertinent du vocabulaire courant. • Formulation claire et cohérente d'un texte de 100 mots.

Learning Activities

Discipline: Français, langue seconde
Weighting: 2-1-3
Credits: 2

Langue seconde (niveau II)	Code: 000A

Objective   *Standard*

Statement of the Competency

Communiquer en français avec une certaine aisance.

Elements of the Competency	**Performance Criteria**
1. Interpréter un texte oral simple de trois minutes en français courant.	• Distinction claire des principaux éléments du texte oral. • Explication précise du sens des mots dans le texte. • Repérage précis des idées et des sujets traités dans le texte.
2. Produire un texte oral planifié de cinq minutes en français courant.	• Emploi pertinent du vocabulaire courant. • Respect du niveau de langue, du code grammatical et des règles de la prononciation. • Formulation claire et cohérente du propos.
3. Interpréter un texte écrit en français courant.	• Distinction claire des principaux éléments du texte. • Explication précise du sens des mots dans le texte. • Repérage précis des idées principales et de la structure d'un texte de 700 à 1000 mots.
4. Rédiger un texte simple en français courant.	• Respect du code grammatical et orthographique. • Utilisation judicieuse des principaux éléments du corpus. • Formulation claire et cohérente des phrases. • Articulation cohérente des paragraphes. • Rédaction d'un texte de 200 mots.

Learning Activities

Discipline:	Français, langue seconde
Weighting:	2-1-3
Credits:	2

Langue seconde (niveau III)	Code: 000B

Objective   *Standard*

Statement of the Competency

Communiquer avec aisance en français.

Elements of the Competency	Performance Criteria
1. Produire un texte oral planifié de cinq minutes de complexité moyenne.	• Emploi pertinent du vocabulaire courant. • Adaptation à l'interlocuteur ou à l'interlocutrice • Respect du niveau de langue, du code grammatical et des règles de la prononciation. • Formulation claire et cohérente du propos. • Agencement pertinent des idées.
2. Commenter un texte écrit de complexité moyenne.	• Distinction claire des principaux éléments d'un texte comprenant entre 2 500 et 3 000 mots. • Explication précise du sens des mots dans le texte. • Distinction précise des idées principales et secondaires, des faits et des opinions. • Formulation d'éléments implicites.
3. Rédiger un texte de complexité moyenne.	• Respect du code grammatical et orthographique. • Adaptation au lecteur ou à la lectrice. • Utilisation judicieuse des principaux éléments du corpus. • Formulation claire et cohérente des phrases, dont au moins trois sont complexes. • Articulation cohérente des paragraphes. • Rédaction d'un texte de 350 mots.

Learning Activities

Discipline: Français, langue seconde
Weighting: 2-1-3
Credits: 2

Langue seconde (niveau IV)	Code: 000C

Objective   *Standard*

Statement of the Competency

Traiter d'un sujet culturel et littéraire.

Elements of the Competency	Performance Criteria
1. Analyser un texte culturel ou littéraire.	• Formulation personnelle des éléments principaux du texte. • Inventaire des thèmes principaux. • Relevé d'indices qui permettent de situer le texte dans son contexte socioculturel et historique. • Repérage des valeurs véhiculées. • Repérage juste de la structure du texte. • Articulation claire d'un point de vue personnel.
2 Rédiger un texte sur un sujet culturel ou littéraire.	• Respect du sujet. • Respect du code grammatical et orthographique. • Adaptation au lecteur ou à la lectrice. • Utilisation judicieuse des principaux éléments du corpus. • Formulation claire et cohérente d'un texte de 500 mots. • Articulation claire d'un point de vue personnel.

Learning Activities

Discipline: Français, langue seconde
Weighting: 3-0-3
Credits: 2

Physical Education	Code: 0064

Objective *Standard*

Statement of the Competency

To establish the role that being physically active plays amongst the lifestyle behaviours which promote health.

Elements of the Competency	**Performance Criteria**
1. To establish a relationship between their lifestyle and their health.	• Appropriate use of documentation • Appropriate connections between their lifestyle and their health
2. To be physically active in a manner that promotes health.	• Observance of the rules involved in physical activities, including safety rules • Respect for their abilities when engaging in physical activities
3. To recognize their needs, abilities and motivational factors with respect to regular physical activity.	• Appropriate use of quantitative and qualitative physical data • Statement of their main physical needs and abilities • Statement of their main motivational factors with respect to regular physical activity
4. To propose physical activities that promote health.	• Appropriate and justified choice of physical activities according to their needs, abilities, and motivational factors

Learning Activities

Discipline: Physical Education
Weighting: 1-1-1
Credits: 1

Physical Education	Code: 0065

Objective   *Standard*

Statement of the Competency

To improve one's effectiveness when practising a physical activity.

Element of the Competency	**Performance Criteria**
1. To use a process designed to improve their effectiveness during a physical activity.	- Initial assessment of their skills and attitudes in relation to a physical activity - Statement of their expectations and needs with respect to their ability to carry out the activity - Appropriate formulation of personal objectives - Statement of the means selected to achieve their objectives - Observance of the rules involved in the physical activity, including safety rules - Periodic evaluation of their skills and attitudes in relation to the activity - Meaningful interpretation of the progress achieved and the difficulties experienced during the activity - Appropriate, periodic adjustments of their objectives or the means used to achieve them - Appreciable improvement of the motor skills required by the activity

Learning Activities

Discipline: Physical Education
Weighting: 0-2-1
Credits: 1

Physical Education	Code: 0066

Objective   *Standard*

Statement of the Competency

To demonstrate one's responsibility for being physically active in a manner which promotes health.

Elements of the Competency	**Performance Criteria**
1. To make physical activity part of a healthy lifestyle.	• Practise of a physical activity while maintaining a balance between effectiveness and the factors promoting health
2. To manage a personal physical activity program.	• Statement of their priorities according to their needs, skills, and motivational factors in relation to regular physical activity • Proper formulation of the objectives for their personal programs • Appropriate choice of activity or activities for their personal programs • Appropriate planning of the conditions in which the activity or activities in their personal programs are carried out • Appropriate choice of criteria for measuring the attainment of their personal programs • Periodic assessment of the time invested and the activities carried out during the program • Meaningful interpretation of the progress achieved and difficulties experienced during the activities • Appropriate, periodic adjustment of their objectives or the means used to attain them

Learning Activities

Discipline: Physical Education
Weighting: 1-1-1
Credits: 1

Language of Instruction and Literature	Code: 000L

Objective   *Standard*

Statement of the Competency

To communicate in the forms of discourse
appropriate to one or more fields of study.

Elements of the Competency	**Performance Criteria**
1. To identify the forms of discourse appropriate to given fields of study.	• Accurate recognition of specialized vocabulary and conventions • Accurate recognition of the characteristics of the form of discourse
2. To recognize the discursive frameworks appropriate to given fields of study.	• Clear and accurate recognition of the main ideas and structure • Appropriate distinction between fact and argument
3. To formulate a discourse.	• Appropriate choice of tone and diction • Correctly developed sentences • Clearly and coherently developed paragraphs • Appropriate use of program-related communication strategies • Formulation of a 1000-word discourse • Thorough revision of form and content

Learning Activities

Discipline: English
Hours of instruction: 60
Credits: 2

Humanities	Code: 000U

Objective

Standard

Statement of the Competency

To apply a critical thought process to ethical issues relevant to the field of study.

Elements of the Competency	**Performance Criteria**
1. To situate significant ethical issues in appropriate world-views and fields of knowledge.	• Accurate recognition of the basic elements of ethical issues • Appropriate use of relevant terminology • Adequate identification of the main linkages with world-views and fields of knowledge
2. To explain the major ideas, values, and social implications of ethical issues.	• Adequate description of the salient components of the issues
3. To organize the ethical questions and their implications into coherent patterns.	• Coherent organization of the ethical questions and their implications • Appropriate expression, including a significant individual written component, of an analysis of the context, importance and implications of the issues
4. To debate the ethical issues.	• Adequate development of substantiated argumentation including context and diverse points of view • Clear articulation of an individual point of view

Learning Activities

Discipline: Humanities
Hours of instruction: 45
Credits: 2

Langue seconde (niveau I)	Code: 0018

Objective   *Standard*

Statement of the Competency

Appliquer des notions fondamentales de la communication en français, liées à un champ d'études.

Elements of the Competency	**Performance Criteria**
1. Dégager le sens d'un message oral simple lié à un champ d'études.	• Repérage précis des difficultés de compréhension du message. • Distinction juste des caractéristiques du message. • Repérage juste du vocabulaire spécialisé. • Utilisation pertinente des techniques d'écoute choisies. • Distinction claire des principaux éléments du message. • Description précise du sens général et des idées essentielles du message.
2. Dégager le sens et les caractéristiques d'un texte lié à un champ d'études.	• Repérage précis des difficultés de compréhension du texte. • Distinction juste des caractéristiques du texte. • Repérage précis du vocabulaire spécialisé. • Utilisation pertinente des techniques de lectures choisies. • Distinction claire des principaux éléments du texte. • Description précise du sens général et des idées essentielles du texte.
3. Émettre un message oral simple lié à un champ d'études.	• Repérage précis des difficultés d'expression orale. • Utilisation pertinente des techniques d'expression orale choisies. • Utilisation pertinente du vocabulaire courant et spécialisé. • Expression intelligible du propos.

Langue seconde (niveau I)	Code: 0018

4. Rédiger un court texte lié à un champ d'études.	• Repérage précis des difficultés d'écrire.
	• Utilisation pertinente des techniques d'écriture choisies.
	• Utilisation pertinente du vocabulaire courant et spécialisé.
	• Formulation claire et cohérente du texte.

Learning Activities

Discipline: Français, langue seconde
Hours of instruction: 45
Credits: 2

Langue seconde (niveau II)	Code: 000Q

Objective   *Standard*

Statement of the Competency

Communiquer en français dans un champ d'études particulier.

Elements of the Competency	**Performance Criteria**
1. Distinguer les types de textes propres au champ d'études.	• Distinction précise des caractéristiques formelles de chacun des principaux types de textes et des conventions utilisées.
2. Interpréter des textes représentatifs du champ d'études.	• Distinction claire des principaux éléments du texte. • Interprétation claire du vocabulaire spécialisé. • Repérage précis des idées et des sujets traités. • Utilisation pertinente des techniques de lecture et d'écoute.
3. Utiliser des techniques de production de textes appropriées au champ d'études.	• Emploi pertinent du vocabulaire spécialisé et des conventions. • Respect du niveau de langue et du code grammatical. • Formulation claire et cohérente du propos. • Utilisation pertinente des techniques d'expression.

Learning Activities

Discipline:	Français, langue seconde
Hours of instruction:	45
Credits:	2

Langue seconde (niveau III)	Code: 000R

Objective   *Standard*

Statement of the Competency

Communiquer avec aisance en français dans un champ d'études particulier.

Elements of the Competency	**Performance Criteria**
1. Commenter des textes propres au champ d'études.	• Distinction précise des caractéristiques formelles des principaux types de textes et des conventions utilisées. • Explication précise du sens des mots dans le texte. • Repérage précis de la structure du texte. • Reformulation juste des idées principales et secondaires, des faits et des opinions. • Emploi juste du vocabulaire spécialisé.
2. Produire un texte sur un sujet lié au champ d'études.	• Respect du sujet. • Emploi pertinent du vocabulaire spécialisé et des conventions. • Respect du niveau de langue et du code grammatical. • Formulation claire et cohérente du propos. • Agencement pertinent des idées. • Adéquation entre forme et fond.

Learning Activities

Discipline: Français, langue seconde
Hours of instruction: 45
Credits: 2

Langue seconde (niveau IV)	Code: 000S

Objective

Standard

Statement of the Competency

Disserter en français sur un sujet lié au champ d'études.

Elements of the Competency

Performance Criteria

1. Analyser un texte lié au champ d'études.

- Distinction précise des caractéristiques formelles des types particuliers de textes.
- Formulation personnelle des éléments principaux.
- Inventaire des thèmes principaux.
- Repérage juste de la structure du texte.
- Relevé d'indices qui permettent de situer le texte dans son contexte.
- Articulation claire d'un point de vue personnel, s'il y a lieu.
- Association juste des éléments du texte au sujet traité.

2. Rédiger un texte sur un sujet lié au champ d'études.

- Respect du sujet.
- Emploi pertinent du vocabulaire spécialisé et des conventions.
- Choix judicieux des principaux éléments du corpus en fonction du type de texte.
- Formulation claire et cohérente du texte.
- Respect du code grammatical et orthographique.
- Articulation claire d'un point de vue personnel, s'il y a lieu.

Learning Activities

Discipline:	Français, langue seconde
Hours of instruction:	45
Credits:	2

Social Sciences	Code: 000V

Objective *Standard*

Statement of the Competency	**Achievement Context**
To estimate the contribution of the social sciences to an understanding of contemporary issues.	• Working alone • In an essay of approximately 750 words on the contribution of the social sciences to an understanding of contemporary issues • Using documents and data from the social sciences

Elements of the Competency	**Performance Criteria**
1. Recognize the focus of one or more of the social sciences and their main approaches.	• Formulation of the focus specific to one or more of the social sciences • Description of the main approaches used in the social sciences
2. Identify some of the issues currently under study in the social sciences.	• Association of these issues with the pertinent areas of research in the social sciences
3. Demonstrate the contribution of one or more of the social sciences to an understanding of contemporary issues.	• Presentation of contemporary issues by emphasizing the interpretation of the social sciences • Illustration of the interaction between certain social changes and the contribution of the social sciences

Learning Activities

Hours of instruction: 45
Credits: 2

Social Sciences	Code: 000W

Objective

Standard

Statement of the Competency

To analyze one of the major problems of our time using one or more social scientific approaches.

Achievement Context

- Working alone
- In an essay of approximately 750 words on a topic related to human existence
- Using reference materials from one or more disciplines in the social sciences

Elements of the Competency

1. Formulate a problem using one or more social scientific approaches.

2. Deal with an issue using one or more social scientific approaches.

3. Draw conclusions.

Performance Criteria

- Presentation of the background to the problem
- Use of appropriate concepts and language
- Brief description of individual, collective, spatiotemporal and cultural aspects of the problem

- Clear formulation of an issue
- Selection of pertinent reference materials
- Brief description of historical, experimental and survey methods

- Appropriate use of the selected method
- Determination of appropriate evaluation criteria
- Identification of strengths and weaknesses of the conclusions
- Broadening of issue studied

Learning Activities

Hours of instruction: 45
Credits: 2

Science and Technology	Code: 000X

Objective

Standard

Statement of the Competency

Achievement Context

To explain the general nature of science and technology and some of the major contemporary scientific or technological issues.

- Working alone
- Given a written commentary on a scientific discovery or technological development
- In an essay of approximately 750 words

Elements of the Competency

Performance Criteria

1. Describe scientific thinking and the standard method.

- Brief description of the essential characteristics of scientific thinking, including quantification and demonstration
- Organized list and brief description of the essential characteristics of the main steps in the standard scientific method

2. Demonstrate how science and technology are complementary.

- Definition of terms and description of the primary ways in which science, techniques and technology are interrelated: logical and temporal connections, and mutual contributions

3. Explain the context and the stages related to several scientific and technological discoveries.

- Pertinent and coherent explanation of the relationship between the determining contexts of several scientific and technological discoveries
- List of the main stages of scientific and technological discoveries

4. Deduce different consequences and questions resulting from certain recent scientific and technological innovations.

- Brief description of important consequences (of different types) and the current major challenges resulting from several scientific and technological discoveries
- Formulation of relevant questions and credibility of responses to the questions formulated

Learning Activities

Hours of instruction: 45
Credits: 2

Science and Technology
                                                                                      Code: 000Y

Objective   ## *Standard*

Statement of the Competency   **Achievement Context**

To resolve a simple problem by applying the basic   • Working alone or in groups
scientific method.   • Given a simple scientific and technological
                                                        problem that can be resolved by applying the
                                                        standard scientific method
                                                      • Using common scientific instruments and
                                                        reference materials (written or other)

Elements of the Competency   **Performance Criteria**

1. Describe the main steps of the standard scientific • Organized list and brief description of the
   method.   characteristics of the steps of the standard
                                                         scientific method

2. Formulate a hypothesis designed to solve a   • Clear, precise description of the problem
   simple scientific and technological problem.   • Observance of the principles for formulating a
                                                         hypothesis (observable and measurable nature
                                                         of data, credibility, etc.)

3. Verify a hypothesis by applying the fundamental   • Pertinence, reliability and validity of the
   principles of the basic experimental method.   experimental method used
                                                       • Observance of established experimental method
                                                       • Appropriate choice and use of instruments
                                                       • Clear, satisfactory presentation of results
                                                       • Validity of the connections established between
                                                         the hypothesis, the verification and the
                                                         conclusion

Learning Activities

Hours of instruction: 45
Credits: 2

Modern Languages	Code: 000Z

Objective

Standard

Statement of the Competency

Achievement Context

To communicate with limited skill[1] in a modern language.

- For modern Latin-alphabet languages:
  - during a conversation consisting of at least eight sentences of dialogue
  - in a written text consisting of at least eight sentences

Or

- For non–Latin-alphabet languages:
  - during a conversation consisting of at least six sentences of dialogue
  - in a written text consisting of at least six sentences
- Based on learning situations on familiar themes
- Using reference materials

Elements of the Competency

Performance Criteria

Learning a modern language requires becoming aware of the culture of the people who use the language.

1. Understand the meaning of a verbal message.
- Accurate identification of words and idiomatic expressions
- Clear recognition of the general meaning of simple messages
- Logical connections between the various elements of the message

2. Understand the meaning of a written message.
- Accurate identification of words and idiomatic expressions
- Clear recognition of the general meaning of simple messages
- Logical connections between the various elements of the message

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1 This refers to the limited use of the structures, grammar and vocabulary of the language studied. This limitation varies depending on the complexity of the modern language.

Modern Languages	Code: 000Z

3. Express a simple message verbally.

- Appropriate use of language structures in main and subordinate clauses
- Appropriate application of grammar rules
- Use of verbs in the present indicative
- Appropriate use of basic vocabulary and idiomatic expressions
- Comprehensible pronunciation
- Coherent sequence of simple sentences
- Spontaneous, coherent sequence of sentences in a dialogue

4. Write a text on a given subject.

- Appropriate use of language structures in main and subordinate clauses
- Appropriate application of basic grammar rules
- Use of verbs in the present indicative
- Appropriate use of basic vocabulary and idiomatic expressions
- Coherent sequence of simple sentences
- Acceptable application of graphic rules for writing systems that do not use the Latin alphabet

Learning Activities

Hours of instruction: 45
Credits: 2

Modern Languages	**Code: 0010**

Objective	*Standard*

Statement of the Competency

Achievement Context

To communicate on familiar topics in a modern language.

- During a conversation consisting of at least 15 sentences of dialogue
- In a written text consisting of at least 20 sentences for Latin-alphabet languages
- In a written text consisting of at least 10 sentences for non–Latin alphabet languages
- Based on:
  – situations in everyday life
  – simple topics from everyday life
- Using reference materials

Elements of the Competency

Performance Criteria

Learning a modern language requires becoming aware of the culture of the people who use the language.

1. Understand the meaning of a verbal message.
- Accurate identification of words and idiomatic expressions
- Clear recognition of the general meaning and essential ideas of messages of average complexity
- Logical connection between the various elements of the message

2. Understand the meaning of a written message.
- Accurate identification of words and idiomatic expressions
- Clear recognition of the general meaning and essential ideas of messages of average complexity
- Logical connection between the various elements of the message

3. Express a simple message verbally, using sentences of average complexity.
- Appropriate use of language structures in main or subordinate clauses
- Appropriate application of grammar rules
- Use of verbs in the present indicative
- Appropriate use of enriched basic vocabulary and idiomatic expressions
- Comprehensible pronunciation
- Coherent sequence of sentences of average complexity
- Coherent dialogue of average complexity

Modern Languages	Code: 0010

| 4. Write a text on a given subject, using sentences of average complexity. | • Appropriate use of language structures in main or subordinate clauses
• Appropriate application of grammar rules
• Use of verbs in the present and past indicative
• Appropriate use of enriched basic vocabulary and idiomatic expressions.
• Coherent sequence of sentences of average complexity
• Acceptable application of graphic rules for writing systems that do not use the Latin alphabet |

Learning Activities

Hours of instruction**:**   45
Credits: 2

Modern Languages	Code: 0067

Objective   ## *Standard*

Statement of the Competency

Achievement Context

To communicate with relative ease in a modern language.

- Working alone
- During a conversation consisting of at least 20 sentences of dialogue
- In a written text of medium length (at least 25 sentences for Latin-alphabet languages and 15 sentences for other languages)
- Given documents of a sociocultural nature
- Using reference materials for the written text

Elements of the Competency

Performance Criteria

Learning a modern language requires being aware of the culture of the people who use the language.

1. Understand the meaning of a verbal message in everyday language.

- Accurate explanation of the general meaning and essential ideas of the message
- Clear identification of structural elements of the language

2. Understand the meaning of a text of average complexity.

- Accurate explanation of the general meaning and essential ideas of the text
- Clear identification of structural elements of the language

3. Have a conversation about a subject.

- Appropriate use of the structural elements of the language according to the message to be expressed
- Appropriate use of everyday vocabulary
- Accurate pronunciation and intonation
- Normal flow in a conversation in everyday language
- Coherence of the message expressed
- Pertinent responses to questions

4 Write a text of average complexity.

- Appropriate use of the structural elements of the language according to the text to be written
- Accurate vocabulary
- Coherence of the text as a whole
- Observance of presentation and writing rules

Learning Activities

Hours of instruction: 45
Credits: 2

Mathematics Literacy and Computer Science   Code: 0011

Objective   *Standard*

Statement of the Competency

To recognize the role of mathematics or informatics in contemporary society.

Achievement Context

- Working alone
- In an essay of approximately 750 words
- Using several concrete examples selected by the student demonstrating the competency

Elements of the Competency

Performance Criteria

1. Demonstrate the acquisition of basic general knowledge in mathematics or informatics.

- Identification of basic notions and concepts
- Identification of main branches of mathematics or informatics
- Appropriate use of terminology

2. Describe the evolution of mathematics or informatics.

- Descriptive summary of several major phases

3. Recognize the contribution of mathematics or informatics to the development of other areas of knowledge.

- Demonstration of the existence of important contributions, using concrete examples

4. Illustrate the diversity of mathematical or informatics applications.

- Presentation of a range of applications in various areas of human activity, using concrete examples

5. Evaluate the impact of mathematics or informatics on individuals and organizations.

- Identification of several major influences
- Explanation of the way in which mathematics or informatics have changed certain human and organizational realities
- Recognition of the advantages and disadvantages of these influences

Learning Activities

Hours of instruction: 45
Credits: 2

Mathematics Literacy and Computer Science	Code: 0012

Objective

Standard

Statement of the Competency

To use various mathematical or computer concepts, procedures and tools for common tasks.

Achievement Context

- Working alone
- While carrying out a task or solving a problem based on everyday needs.
- Using familiar tools and reference materials

Elements of the Competency

Performance Criteria

1. Demonstrate the acquisition of basic functional knowledge in mathematics or informatics.

- Brief definition of concepts
- Correct execution of basic operations
- Appropriate use of terminology

2. Select mathematical or computer tools and procedures on the basis of specific needs.

- List of numerous possibilities available with mathematical and computer tools and procedures
- Analysis of concrete situations and recognition of the usefulness of mathematical or computer tools and procedures
- Appropriate choice according to needs

3. Use mathematical or computer tools and procedures to carry out tasks and solve problems.

- Planned, methodical process
- Correct use of tools and procedures
- Satisfactory results, given the context
- Appropriate use of terminology specific to a tool or procedure

4. Interpret the quantitative data or results obtained using mathematical or computer tools and procedures.

- Accurate interpretation, given the context
- Clear, precise formulation of the interpretation

Learning Activities

Hours of instruction: 45
Credits: 2

Art and Aesthetics	Code: 0013

Objective

Standard

Statement of the Competency

To consider various forms of art produced by aesthetic practices.

Achievement Context

- Working alone
- Given a specified work of art
- In a written commentary of approximately 750 words.

Elements of the Competency

Performance Criteria

1. Develop an appreciation for the dynamics of the imagination in art.

- Precise explanation of a creative process connected to the construction of an imaginary universe

2. Describe art movements.

- Descriptive list of the main characteristics of three art movements from different periods, including a modern movement

3. Give a commentary on a work of art.

- Coherent organization of observations, including identification of four basic elements of form and structure related to the language used as well as a justified description of the meaning of the work of art

Learning Activities

Hours of instruction: 45
Credits: 2

Art and Aesthetics	Code: 0014

Objective

Standard

Statement of the Competency

To produce a work of art.

Achievement Context

- Working alone
- During a practical exercise
- In the context of a creation or an interpretation
- Using the basic elements of the language and techniques specific to the medium selected

Elements of the Competency

Performance Criteria

1. Recognize the primary forms of expression of an artistic medium.

- Identification of specific features: originality, essential qualities, means of communication, styles, genres

2. Use the medium.

- Personal, coherent use of elements of language
- Satisfactory application of artistic techniques
- Observance of the requirements of the method of production

Learning Activities

Hours of instruction: 45
Credits: 2
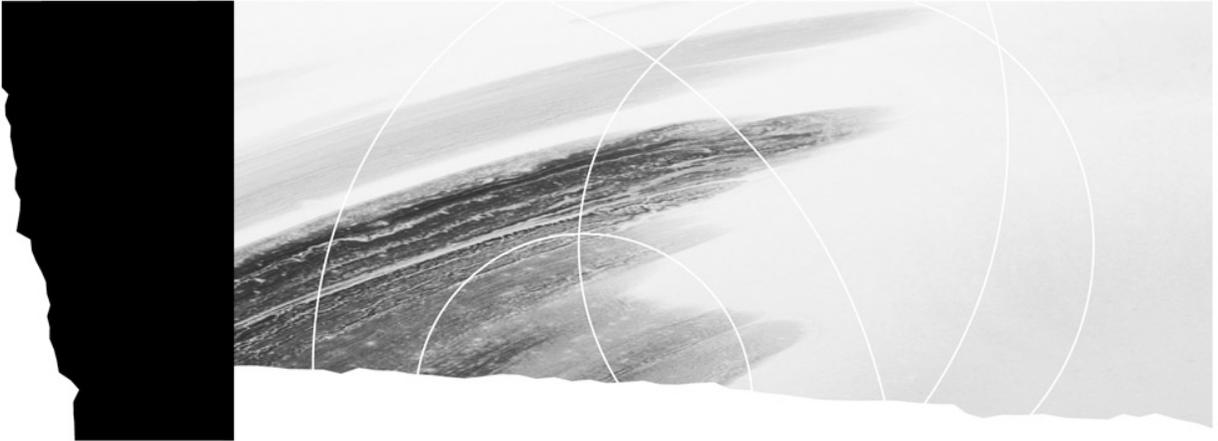
Part II

Goals of the Program-Specific Component

The *Architectural Technology* program prepares students to practise their occupation in the offices of architects or technologists, in engineering firms, construction companies and governmental bodies.

Architectural technologists contribute to the development and completion of an architectural project, or assist throughout its construction, as defined by the *Architects Act*, the *Engineers Act*, the *Public Buildings Safety Act* and the *Professional Code*. They may therefore produce drawings and promotional material, design construction details, write specifications, estimate construction costs, coordinate construction work, inspect the condition of an existing building, verify building compliance with laws, standards and the Construction Code and contribute to maintaining the quality of an architectural heritage. The scope and the volume of tasks vary according to the type of business and the type of work, and whether the individual occupies a salaried position or is self-employed.

As part of their work, architectural technologists are required to research information, ensure that project documents are consistent, communicate on a regular basis with their partners, and make decisions.

The goals of the program-specific component of the *Architectural Technology* program are based on the general goals of vocational and technical training. These goals are:

- 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 necessary 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 the context surrounding the occupation they have chosen
  - 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 the desire 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 of the Program-Specific Component

Educational aims are based on important values and concerns and serve as guidelines for interactions with students. As a general rule, educational aims focus on important aspects of the students' professional and personal development, such as attitudes, work habits and intellectual skills, which have not been explicitly formulated in the program's goals, objectives and standards.

The following is a description of the aims of the program-specific component of the *Architectural Technology* program:

- To develop a sense of responsibility
- To develop a sense of observation
- To develop a concern for accuracy
- To develop the ability to work in a team

Grid of Competencies

The grid of competencies provides an overview of a technical program. It brings together all of the components of a program and shows the relationship among the competencies.

The grid of competencies includes:

- the general competencies of the program-specific component, which deal with work-related activities common to various tasks or situations

- the specific competencies, which deal with tasks directly related to the practice of the trade or occupation

The grid of competencies shows the relationship between the general competencies 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 order in which the competencies are presented reflects the program's design; it does not dictate the course sequence. The grid of competencies is provided for information purposes only.

GRID OF COMPETENCIES

ARCHITECTURAL TECHNOLOGY

SPECIFIC COMPETENCIES	Competency Number	GENERAL COMPETENCIES											
		To analyze the job function	To interpret drawings and specifications	To make preliminary sketches	To research technical information	To carry out building calculations	To ensure the compliance of a building or a building plan with the Construction Code as well as with the laws, regulations and standards in force	To issue a technical report concerning the types of construction and building systems	To communicate with the project partners	To assume their responsibilities concerning on-site occupational health and safety	To assess the architectural characteristics of a building project	To ensure the consistency of project documents	To prepare a project design
Competency Number		1	2	3	5	6	7	8	9	10	11	15	16
To produce presentation materials	4	O	O	O									
To carry out building surveys	12	O	O	O		O			O	O			
To make presentation drawings	13	O	O	O	O				O		O		
To make working drawings	14	O	O	O	O	O	O	O	O			O	
To design the construction details	17	O	O	O	O	O	O	O	O			O	O
To write the specifications for a project	18	O	O		O		O	O	O	O		O	
To estimate construction costs	19	O	O		O	O			O			O	
To do a condition assessment for a building	20	O		O			O	O	O	O	O		O
To coordinate construction work	21	O	O	O	O	O	O	O	O	O		O	O
To carry out project management activities	22	O	O		O	O	O		O			O	
To prepare a project design	23	O	O	O	O		O		O		O		O

Harmonization

The Ministère de l'Éducation 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, recognize prior learning and facilitate 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 competencies 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 *Architectural Technology* program has resulted in identifying competencies that are shared with other programs. Detailed information on the harmonization of this program and its results are presented in the document entitled *Tableaux d'harmonisation, Technologie de l'architecture*.

	Code: 0350

Objective   *Standard*

Statement of the Competency

To analyze the job function.

Achievement Context

- Using documentation on the occupation of architectural technologist (i.e. Architectural Technician, *preliminary study* and *job analysis report)*
- Using the laws and regulations in effect, including the *Architects Act*
- Using documentation about the Ordre des architectes du Québec, the Ordre des technologues professionnels du Québec and the construction market

Elements of the Competency

1. Understand the work environment in the building industry.

2. Describe the job function and conditions of employment.

3. Study the tasks related to the occupation.

Performance Criteria

- Clear concept of the links between:
  - architectural firms
  - engineering firms
  - technology firms
  - municipalities
  - the Ministère du Travail
  - building contractors
  - products and materials manufacturers
  - real estate developers and managers
  - other parties involved

- Clear definition of the job function of the architectural technologist
- Accurate description of:
  - work environments
  - working conditions
  - type of work (salaried or self-employed)
- Clear understanding of occupational responsibilities

- Detailed study of each of the tasks
- Accurate definition of the scope, the frequency and complexity of the tasks based on the characteristics of the various work environments

4. Study the skills and behaviours necessary to practise the occupation.

- Pertinence of the links between skills and socio-affective behaviours and the tasks of the job function

5. Understand the relation of the occupation of architectural technologist to the profession of architect.

- Clear definition of an architect's job functions
- Clear distinction of the rights and responsibilities of both jobs

	Code: 0351

Objective _____ *Standard*

Statement of the Competency	**Achievement Context**
To interpret drawings and specifications.	• Given drawings and specifications • Using documentation on drawing standards and drawing presentation standards in the metric and imperial systems • Using their sense of observation

Elements of the Competency	**Performance Criteria**
1. Establish the correlation between project-related drawings.	• Accurate identification of correlation between the following types of drawings: – architectural – structural – mechanical – electrical – urban plans
2. Gather information relevant to a project.	• Effective search for information in drawings and specifications • Accurate interpretation of: – symbols – information • Three-dimensional view of overall project
3. Ensure that drawings comply with the specifications.	• Exact agreement between the information provided by the drawings and the data contained in the specifications
4. Take dimensions from drawings.	• Accuracy of measurements • Appropriate conversion of measurements from one system to another
5. Foresee the scope of the work.	• Accurate perception of: – the degree of difficulty – the scope of the work – the conditions of execution

	Code:	0352

Objective

Standard

Statement of the Competency

To make preliminary sketches.

Achievement Context

- Using different media and various supports

Elements of the Competency

Performance Criteria

1. Prepare materials.
   - Sound choice of support
   - Sound choice of the medium based on the support and the expected result

2. Plan the sketch.
   - Sound decision about the type of sketch to be carried out:
     – observation sketch
     – technical sketch
   - Sound choice of perspective
   - Appropriate scale

3. Proceed with the layout.
   - Appropriate use of line-work
   - Accurate proportions of the elements of the sketch
   - Meticulous observation when producing observation sketches, if necessary
   - Realistic, aesthetic sketch

4. Texture the sketch.
   - Appropriate application of textures
   - Appropriate application of highlighting effects

5. Annotate the sketch.
   - Accurate, readable notes
   - Accurate use of conventions
   - Structured organization of information

| | Code: | 0353 |

Objective   *Standard*

Statement of the Competency

To produce presentation materials.

Achievement Context

- Under the supervision of their superior, or independently, and in compliance with the professional standards stipulated, in particular, by laws and regulations
- Using decorating magazines and catalogues; materials, various supports and samples; tools; a digitizer; word-processing, image- processing and presentation software; an electronic information network; a still camera

Elements of the Competency

1. Interpret the instructions or the mandate.

2. Decide on the type of material to be produced.

3. Obtain approval for the project.

4. Plan the work.

5. Produce the material or supervise its production.

6. Verify the quality of the work.

Performance Criteria

- Clear interpretation of the scope of the mandate and the desired effect

- Accurate determination of the type of material to be produced based on the objective:
  - presentation board of samples
  - table of colour board
  - preliminary model
  - slide presentation
  - computerized presentation

- Clear statement of their ideas
- Attention to comments

- Appropriate choice of media and of support
- Accurate determination of the required resources
- Establishment of a realistic schedule

- Compliance with the techniques specific to each type of material
- Observation of health and safety rules when using tools
- Aesthetics of the material
- Quality of language
- Clear communication of work instructions, when applicable

- Careful examination enabling detection of flaws

	Code:	0353

7. Submit the material to the individuals concerned.

- Meticulous presentation
- Compliance with the schedule

Code: 0354

Objective   *Standard*

Statement of the Competency   **Achievement Context**

To research technical information.
- Using the Construction Code, as well as the laws, regulations and standards in effect; technical documentation in French or in English; and information and communications technologies
- Demonstrating intellectual curiosity

Elements of the Competency   **Performance Criteria**

1. Plan their research.
   - Structured organization of information gathering
   - Rapid retrieval of information sources

2. Gather information.
   - Adequate use of new information and communications technologies
   - Effective gathering of information relating to:
     – materials
     – products
     – services
   - Clear communication when consulting resource persons

3. Process information.
   - Organized classification of information
   - Clarity of the synthesis

4. Transmit information.
   - Regular distribution of information
   - Use of appropriate technical vocabulary
   - Clear, accurate communication

5. Update the library and the materials reference centre.
   - Ensure technology monitoring
   - Classification in accordance with the Masterformat
   - Optimal organization of the library and the materials reference centre

Objective

Standard

Statement of the Competency

To carry out building calculations.

Achievement Context

- Based on data concerning a building problem in the imperial or the metric system
- Using technical documentation in French or in English; a calculator; a spreadsheet program; information and communications technologies

Elements of the Competency

1. Determine the dimensions.

2. Calculate structural elements.

3. Assess the efficiency of the building envelope.

4. Provide results of mechanical calculations.

Performance Criteria

- Accuracy of the dimensions:
  – volumes
  – surfaces
  – angles and distances
  – proportions

- Accurate interpretation of soil test reports
- Accurate calculation of:
  – pressures
  – loads
  – structural elements

- Accurate calculation of:
  – amount of insulation
  – types of soundproofing
  – amount of heat loss
  – air infiltration

- Accurate application of formulae specific to the following systems:
  – plumbing
  – heating
  – ventilation
  – electrical
  – lighting

Code: 0356

Objective   ## *Standard*

Statement of the Competency

To ensure the compliance of a building or a
building plan with the Construction Code as well
as with the laws, regulations and standards in
force.

Achievement Context

- Using building projects; plans and
  specifications; existing buildings; the
  Construction Code; the laws, regulations and
  standards in force; technical documentation in
  French or in English; information and
  communications technologies
- Demonstrating professionalism

Elements of the Competency

Performance Criteria

1. Plan the work.

- Accurate perception of the scope of the
  intervention

2. Verify a building's classification.

- Accurate determination of the type of building

3. Identify the elements requiring verification.

- Accurate determination of potential problems
  concerning:
  – fire safety
  – floor area safety
  – requirements for exits
  – requirements for sanitation
  – design of obstacle-free access
  – other aspects

4. Identify an area of inquiry.

- Accurate recognition of the appropriate key
  words

5. Select the section of the Construction Code or
   the document in question.

- Consultation of the appropriate section, sub-
  section or document

6. Carry out research.

- Rigorous application of a research method
- Use of a speed-reading technique
- Demonstration of perseverance
- Accurate interpretation of the sections

7. Have their interpretation validated by the
   competent authorities, when applicable.

- Clear communication with resource persons
- Careful attention to recommendations
- Courtesy

8. Issue a report.

- Clear communication
- Relevance of recommendations

	Code:	0357

Objective *Standard*

Statement of the Competency

To issue a technical report concerning the types of construction and building systems.

Achievement Context

- Using plans, specifications and detailing for completed projects; existing buildings; architectural intent or architectural design; technical documentation in French or in English; the Construction Code as well as the laws, regulations and standards in force

Elements of the Competency

Performance Criteria

1. Become familiar with the project.

- Accurate interpretation of the project
- Three-dimensional view of the overall project

2. Propose a structural system.

- Sound choice of the system in terms of:
  - the type of building
  - conditions of execution
  - the architectural concept
- Accurate calculations for structural elements
- Appropriate determination of materials in terms of their resistance and performance
- Consideration of mechanical and electrical systems

3. Propose a building envelope system.

- Sound choice of the system in terms of:
  - the type of building
  - desired performance in terms of insulation, airtightness and structure
- Compatibility of materials
- Technical feasibility of the assembly of materials
- Accurate calculations specific to thermal resistance, airtightness and applicable loads
- Compliance with the legislation governing energy conservation and insulation
- Consideration of mechanical and electrical systems

4. Propose interior systems.

- Sound choice of the system in terms of:
  - the type of building
  - desired performance
- Consideration of mechanical and electrical systems

5. Evaluate the proposal(s).	• Verification that proposal(s) comply with the Construction Code, as well as with the laws, regulations and standards in force • Accurate evaluation of the feasibility of the proposal(s) • Consistent concern with how they work together
6. Communicate with the other partners.	• Clear, effective communication

Code: 0358

Objective   *Standard*

Statement of the Competency

To communicate with the project partners.

Achievement Context

- In different work situations
- Using information and communications technologies
- Observing the principles of effective communication

Elements of the Competency

Performance Criteria

1. Accept a mandate.

- Careful attention to their interlocutor:
- Verification of their understanding of the mandate:
  - pertinence of questions asked
  - use of appropriate terminology
- Possession of all the necessary information

2. Issue recommendations on the work to be accomplished.

- Clear, accurate recommendations
- Verification of the interlocutor's understanding
- Demonstration of courtesy and interpersonal skills
- Quality of written recommendations

3. Discuss an architectural project.

- Careful attention to the partners' ideas
- Clarity of their opinions and arguments
- Respect of others' right to speak
- Respect of others' ideas
- Use of effective communication techniques in a team
- Demonstration of attitudes that foster a good work atmosphere

4. Negotiate with partners.

- Effort to find a compromise that is satisfactory to the various parties
- Clear, precise expression of their point of view
- Demonstration of attitudes that are conducive to dialogue
- Careful avoidance of conflicts

Code: 0359

Objective   ## *Standard*

Statement of the Competency

To assume their responsibilities concerning on-site occupational health and safety.

Achievement Context

- Using the Act respecting occupational health and safety; the Workplace Hazardous Materials Information System (WHMIS); the appropriate safety equipment
- Using their ability to ensure compliance with occupational health and safety regulations

Elements of the Competency

Performance Criteria

1. Evaluate occupational hazards (accident risks).

- Pertinence of judgment concerning potentially hazardous situations
- Accurate and precise reporting of facts to the competent authorities

2. Select preventive measures.

- Accurate analysis of the environment
- Accurate determination of preventive measures taking into account:
  – the physical environment
  – the work organization
  – the work technique

3. Apply safe employment practices.

- Proper use of protective equipment
- Clear communication of health and safety procedures

4. Respond in emergency situations.

- Accurate evaluation of their abilities and limitations
- Clear and precise communication with the various individuals involved
- Correct application of established procedure
- Demonstration of calm and composure
- Rapid intervention

	Code: 035A

Objective

Standard

Statement of the Competency

To assess the architectural characteristics of a building project.

Achievement Context

- Using documentation on architecture and its history; photographs of a building; reference works on construction techniques and old and new materials; information and communications technologies
- Utilizing their sense of observation and aesthetic judgment

Elements of the Competency

1. Observe the work as a whole.

Performance Criteria

- Careful examination of:
  – the urban, semi-urban or rural environment
  – the period of construction
  – the nature and use of the building
- Brief evaluation of forms and proportions
- Clear perception of the original concept of an architectural feature

2. Examine the details of a building.

- Attentive and meticulous examination of a building's characteristics:
  – style
  – materials
  – construction techniques

3. Compare a building's characteristics with those of a reference style.

- Accurate identification of similarities and differences

4. Formulate their opinion.

- Pertinence of judgment
- Clear, decisive opinion
- Use of appropriate terminology
- Pertinent, structured reasoning

	Code:	035B

Objective   *Standard*

Statement of the Competency

To carry out building surveys.

Achievement Context

- Under the supervision of their superior, or independently, and in compliance with the professional standards stipulated, in particular, by laws and regulations
- Following instructions or a mandate
- Using measuring instruments, the appropriate safety equipment, a still camera or a video camera
- Following the health and safety regulations specific to each site visited
- Demonstrating professionalism and utilizing their sense of responsibility

Elements of the Competency

1. Interpret the instructions or the mandate.

2. Plan surveys.

3. Conduct a visual inspection of the site.

4. Prepare the sketches.

Performance Criteria

- Accurate interpretation of the instructions or the mandate
- Accurate interpretation of information concerning the site location

- Structured organization of the work
- Accurate assessment of the site's accessibility
- Clear communication with resource persons

- Careful examination of:
  - the structure
  - the foundation
  - the building envelope
  - mechanical and electrical systems
  - associated works
- Accurate identification of architectural characteristics
- Accurate recognition of the occupational health and safety hazards

- Sketches must be:
  - complete
  - clear
  - detailed

	Code:	035B

5. Take measurements.

- Appropriate use of measurement instruments
- Accurate drawing showing:
  - dimensions
  - axes

6. Take notes.

- Notes must be:
  - complete
  - legible
  - accurate

7. Photograph the site

- Suitability of photographs
- Clarity of photographs

	Code:	035C

Objective   *Standard*

Statement of the Competency	**Achievement Context**
To make presentation drawings.	• Under the supervision of their superior, or independently, and in compliance with the professional standards stipulated, in particular, by laws and regulations • Based on rendering images, photographs, sketches of a project • Using a spreadsheet program and information and communications technologies; colouring instruments; a still camera; a digitizer; projection tools • Complying with technical drawing standards and office standards • Utilizing their sense of observation • Demonstrating professionalism and utilizing their sense of responsibility

Elements of the Competency	**Performance Criteria**
1. Plan their work.	• Accurate interpretation of the established goal • Detailed estimate of time to complete the project • Three-dimensional view of the overall project
2. Prepare their workstation.	• Appropriate choice of the support and the medium based on the desired result • Adaptation of the computerized workstation based on ergonomic standards

	Code:	035C

3. Prepare the drawing.	• Adaptation of the work method based on the nature and the scope of the work to be accomplished
	• Sound choice of scale
	• Appropriate layout of views:
	  – plan view
	  – elevation view
	  – sectional view
	  – perspective view
	• Precision and accuracy of lines
	• Appropriate use of symbols
	• Correct application of lighting effects, colour and texture
	• Appropriate use of graphics software:
	  – appropriate use of functions specific to two- and three-dimensional drawing
	  – logical organization and regular backup of files
	  – correct customization based on needs
	• Compliance with the schedule

4. Complete the drawing.	• Clear dimensioning, where applicable • Clear, legible notes • Pertinence of the information contained in the title block • Meticulous presentation

5. Verify their drawing and have it revised if necessary.	• Rapid detection of errors and omissions of essential elements
	• Clear communication with those responsible for the following types of editing:
	  – technical
	  – linguistic

6. Correct their drawing.	• Matching of problems detected with the corrections made

7. See to the reproduction of their drawing.	• Sound choice of the mode of reproduction
	• Precise verification of:
	  – the quality of the reproduction
	  – the number of copies
	  – the quality of the assembly

Code: 035D

Objective   *Standard*

Statement of the Competency

To make working drawings.

Achievement Context

- Under the supervision of their superior, or independently, and in compliance with the professional standards stipulated, in particular, by laws and regulations
- Based on a project sketch and/or technical sketches
- Using the Construction Code; technical documentation in French or in English; a spreadsheet program and information and communications technologies; a digitizer
- Complying with technical drawing standards and their office standards
- Working meticulously
- Demonstrating professionalism and utilizing their sense of responsibility

Elements of the Competency

Performance Criteria

1. Plan their work.

- Accurate interpretation of the scope of the project and the work to be accomplished
- Accurate determination of the type and the number of drawings to be produced
- Detailed estimate of time to complete the project
- Three-dimensional view of the overall project

2. Prepare their workstation.

- Appropriate choice of materials
- Adaptation of the work station based on ergonomic standards

3. Organize the assembly.

- Structured distribution of drawings in the document
- Appropriate choice of document format

4. Prepare the drawing.	• Adaptation of the work method based on the nature and the scope of the work to be accomplished
	• Sound choice of scales
	• Appropriate layout of:
	  – plan views
	  – elevation views
	  – sectional views
	  – details
	  – foundations
	  – schedules
	• Precision and accuracy of lines
	• Appropriate use of symbols
	• Appropriate use of graphics software
	• Compliance with schedule

5. Complete the drawing.	• Clear dimensioning • Clear, legible notes • Pertinence of the information contained in the title block • Meticulous presentation

6. Verify their drawing and have it revised if necessary.	• Rapid detection of errors and omissions of essential elements
	• Clear communication with those responsible for the following types of editing:
	  – technical
	  – legal
	  – linguistic

7. Correct their drawing.	• Matching of problems detected with the corrections made

8. See to the reproduction of their drawing.	• Sound choice of the mode of reproduction
	• Precise verification of:
	  – the quality of the reproduction
	  – the number of copies
	  – the quality of the assembly

	Code: 035E

Objective   *Standard*

Statement of the Competency

To ensure the consistency of project documents.

Achievement Context

- Using plans and specifications, technical documentation in French or in English, graphics software
- Utilizing their sense of observation

Elements of the Competency

1. Gather information on the project.

2. Study the documents.

3. Detect lack of correspondence between the disciplines.

4. Propose solutions.

Performance Criteria

- Obtained all the necessary plans and specifications:
  - architectural
  - structural
  - mechanical
  - electrical
  - urban plans
- Accurate identification of resource persons

- Accurate determination of the elements for examination:
  - plans
  - specifications
  - shop drawings
- Attentive analysis of submitted documents
- Three-dimensional view of the overall project

- Precise identification of instances of lack of correspondence

- Originality and simplicity of proposed solutions
- Sound evaluation of the proposal's impact on the project as a whole
- Respect for the ideas of others during coordination meetings
- Clarity of communication

Objective   *Standard*

Statement of the Competency   **Achievement Context**

To analyze a problem relative to a building.

- Using the Construction Code as well as the laws, regulations and standards in force; technical documentation in French or in English; graphics software
- Utilizing their analytical ability and their sense of observation

Elements of the Competency   **Performance Criteria**

1. Become familiar with the situation.

- Sound appraisal of the situation
- Attentive observation of problems

2. Carry out research.

- Adequate consultation of plans, specifications and other available documents
- Clear communication with resource persons
- Accurate determination of the assessments required
- Meticulous inspection of the building
- Accurate verification in the Construction Code and other documents

3. Process the information gathered.

- Clear summary of the information
- In-depth consideration of the factors causing the situation

4. Formulate hypotheses.

- Coherent and realistic hypotheses in terms of:
  – a real problem
  – an anticipated problem

5. Determine the cause of the problem.

- Accurate establishment of the links between the observed problems and the building systems
- Verification of the accuracy of the cause of the problem

6. Propose one or more solutions.

- Clarity of the proposal(s)
- Realism and feasibility of the solution(s)
- Accuracy of calculations, when applicable

	Code:	035G

Objective

Standard

Statement of the Competency

To design the construction details.

Achievement Context

- Under the supervision of their superior, or independently, and in compliance with the professional standards stipulated, in particular, by laws and regulations
- Based on existing detail drawings
- Using the Construction Code as well as the laws, regulations and standards in effect; technical documentation in French or in English; a spreadsheet program and information and communications technologies
- Complying with technical drawing standards and office standards
- Observing the principles of effective communication during coordination meetings
- Demonstrating ingenuity
- Demonstrating professionalism and utilizing their sense of responsibility

Elements of the Competency

1. Identify the technical node likely to lead to the production of detail drawings.

2. Analyze the technical node.

Performance Criteria

- Meticulous determination of technical situations requiring the production of a detail drawing
- Demonstration of their ability to foresee the required details
- Three-dimensional view of the overall project

- In-depth search for information
- Rigorous study of potential solutions taking into account:
  - different systems
  - performances in terms of insulation
  - airtightness
  - compatibility of materials
  - performance of materials
- Accurate calculations
- Creative solutions
- Concern for occupational health and safety

3. Prepare freehand technical sketches.	• Sketches must be:
	  – complete
	  – clear
	  – detailed
	• Accurate rendering, through the sketch, of imagined concepts

4. Verify the design in terms of the Construction Code as well as the laws, regulations and standards in force.	• Accurate interpretation of the Construction Code, laws, regulations and standards
5. Discuss with other team members.	• Ongoing and effective communication in the team • Verification of the feasibility of the proposed solution.
6. Have their work approved, if necessary.	• Clear presentation of their work
7. Draw the construction detail.	• Appropriate adaptation of scaling based on the type of detail drawing • Accurate positioning of centre lines, where applicable • Meticulous graphic representation of the components of the detailing • Adequate dimensioning of the detail • Precise annotation of the detail • Appropriate use of graphics software

	Code: 035H

Objective   *Standard*

Statement of the Competency

To write the specifications for a project.

Achievement Context

- Under the supervision of their superior, or independently, and in compliance with the professional standards stipulated, in particular, by laws and regulations
- Using plans, the Construction Code, the National Master Specification, previous specifications, Masterformat, technical documentation in French or in English, specification writing software
- Working in an orderly and meticulous manner
- Demonstrating professionalism and utilizing their sense of responsibility

Elements of the Competency

1. Identify the sections of specifications required for the project.

2. Write the specifications sections.

3. Write special conditions.

Performance Criteria

- Accurate identification of the necessary sections

- Appropriate adaptation of sections according to project needs
- Use of appropriate terminology
- Accuracy of decisions taking into account construction principles and the preferred types of materials
- Compliance with the Construction Code
- Correct application of a work method
- Correct classification of information according to the sections provided
- Inclusion of all the necessary information
- Matching of provided sections and other sections
- Concern for occupational health and safety when writing up the sub-section "Implementation"
- Appropriate consultation of resource persons

- Pertinence of specifications specific to the project
- Clear, unequivocal information provided

4. Adapt the general conditions.	• Adaptation of the general conditions to the scope of the project • Complete and precise information

5. Make the necessary adjustments.	• Effective communication with team members
	• Appropriate corrections after the following types of revision:
	  – technical
	  – legal
	  – linguistic

6. Have their work approved, if necessary.	• Clear presentation of their work
7. Assemble the specifications.	• Correct integration of all specifications sections • Compliance with legal standards associated with the signing of contracts • Accurate reproduction of the specifications

	Code:	035J

Objective

Standard

Statement of the Competency

To estimate construction costs.

Achievement Context

- Under the supervision of their superior, or independently, and in compliance with the professional standards stipulated, in particular, by laws and regulations
- Using a previous estimate; works pertaining to estimates; price lists; plans and specifications; technical documentation in French or in English; specialized software, a database, and information and communications technologies
- Demonstrating professionalism and utilizing their sense of responsibility

Elements of the Competency

Performance Criteria

1. Become familiar with the project.

- Accurate interpretation of:
  - drawings and specifications
  - documentation
- Accurate evaluation of the scope of the estimate to be carried out
- Sound choice of estimating technique in accordance with the project phase
- Effective communication with project partners

2. Determine the quantities of materials.

- Meticulous determination of all materials
- Accurate identification of appropriate methods
- Precise calculations of the quantity of materials

3. Find the unit prices.

- Appropriate consultation of resource persons
- Acquisition of precise, accurate data
- Systematic verification of data obtained

4. Estimate completion time.

- Accurate matching of the construction schedule with the required work force

5. Produce the estimate.

- Correct structuring of the gathered data
- Application of a clear method
- Accurate interpretation of estimate manuals
- Precise application of costs to quantities of materials
- Accurate calculations
- Matching of the estimate structure to the Masterformat

	Code:	035K

Objective   ## *Standard*

Statement of the Competency

To do a condition assessment for a building.

Achievement Context

- Under the supervision of their superior, or independently, and in compliance with the professional standards stipulated, in particular, by laws and regulations
- Following instructions or a mandate
- Using plans and specifications; the Construction Code; technical documentation in French or in English; measuring instruments; the appropriate safety equipment; a still camera or a camera
- Following the health and safety regulations specific to each site visited
- Utilizing their sense of observation and demonstrating professionalism

Elements of the Competency

Performance Criteria

1. Identify the conditions of the site.

- Summary examination of the entire site
- Accurate interpretation of the documentation pertaining to the building

2. Examine the building's systems.

- Attentive observation of the systems in place
- Accurate identification of the entire construction
- Accurate condition assessment of the components
- Anticipation of problems

3. Verify compliance with the Construction Code, as well as with the laws, regulations and standards in force.

- Accurate interpretation of the Construction Code, as well as the laws, regulations and standards which:
  – are current
  – were in force at the time the building was constructed

4. Determine the necessary appraisals.

- Clear communication with resource persons
- Sound decision-making according to the types of expertise
- Strategic choice of the location requiring appraisals
- Precise coordination of appraisal methods

	Code:	035K

5. Make a judgment on the state of the elements examined.	• Accurate interpretation of the appraisal results • Accurate assessment of the condition of the building • Accurate assessment of the building's architectural features
6. Write a report.	• Clarity of recommendations • Quality of language • Precise description of observed elements • Pertinence of reasoning • Observance of the limits of their field of intervention

Code: 035L

Objective

Standard

Statement of the Competency

To coordinate construction work.

Achievement Context

- Under the supervision of their superior, or independently, and in compliance with the professional standards stipulated, in particular, by laws and regulations
- Using plans and specifications; the Construction Code as well as the laws, regulations and standards in force; technical documentation in French or in English; An Act respecting occupational health and safety; the Workplace Hazardous Materials Information System (WHMIS); the appropriate safety equipment; measuring instruments; a still camera or a camera; specialized software
- Following occupational health and safety regulations
- Demonstrating professionalism
- Utilizing their organizational skills, as well as their ability to work with a team and manage stress

Elements of the Competency

1. Become familiar with the project.

2. Organize the work.

Performance Criteria

- Accurate interpretation of commitments and contractual responsibilities
- Accurate interpretation of plans and specifications
- Meticulous verification of the correlation between documents
- Three-dimensional view of the overall project

- Realistic planning of work:
  – accurate determination of the phases of work and their duration
  – correct planning of the construction schedule
- Correct preparation of a call for tenders
- Accurate interpretation of the bids
- Clear communication with the contractors and municipal authorities

	Code:	035L

3. Inspect construction work on site.	• Attentive observation of: – construction techniques and assemblies – materials used – the application of laws and regulations • Verification that the work carried out corresponds to the plans and specifications as well as the other documents produced during the course of the work • Sound decision-making concerning modifications to the plans and specifications, taking into account: – the legal framework – materials equivalence – the budget – the schedule • Accurate report of the facts to their superior or to the client • Clarity of the instructions transmitted • Diplomacy
4. Monitor the work.	• Accurate evaluation of the progress of work • Compliance with schedule • Adequate problem-solving • Productive negotiation with partners • Appropriate monitoring of documents • Clear transmission of information to their superior or to the client
5. Participate in job meetings.	• Observance of the principles of effective communication • Pertinence and clarity of their opinions and arguments • Respect for others • Punctuality • Meeting report: – clear – accurate

Code: 035M

Objective

Standard

Statement of the Competency

To carry out project management activities.

Achievement Context

- Under the supervision of their superior, or independently, and in compliance with the professional standards stipulated, in particular, by laws and regulations
- Using plans and specifications; the Construction Code as well as the laws, regulations and standards in force; technical documentation in French or in English; computer equipment
- Utilizing their organizational skills, as well as their ability to work with a team and manage stress

Elements of the Competency

1. Plan the activities required to carry out the project.

Performance Criteria

- Accurate determination of the activities
- Establishment of a realistic schedule
- Adequate planning of the necessary human, material and financial resources
- Consideration of the various constraints
- Adequate task assignment according to the abilities of the team members

2. Estimate the project costs.

- Consideration of all the cost drivers
- Adequate approximation of costs

3. Prepare contracts.

- Accurate entry of information on forms
- Careful attention to the advice of resource persons

4. Supervise the work.

- Unequivocal instructions for producing the drawings and schedule
- Regular work quality audit
- Appropriate conflict management
- Demonstration of leadership
- Facilitating qualities:
  – respect for the ideas of others
  – respect for the right to speak
  – clarity of communication

	Code:	035M

5. Ensure monitoring of the project.

- Compliance with the schedule and the budget
- Regular update of the project
- Clear transmission of information to their superior or to the client

	Code:	035N

Objective   *Standard*

Statement of the Competency	**Achievement Context**
To prepare a project design.	- Under the supervision of their superior, or independently, and in compliance with the professional standards stipulated, in particular, by laws and regulations - Using the Construction Code as well as the laws, regulations and standards in force - Contributing to the quality of the architectural heritage - Demonstrating creativity and aesthetic sense - Demonstrating professionalism and utilizing their sense of responsibility

Elements of the Competency	**Performance Criteria**
1. Accept a mandate.	- Establishment of a relationship of trust with a client - Accurate interpretation of the client's needs - Accurate perception of the client's tastes and values - Accurate verification of the budget allocated to the project - Clarity of communication
2. Establish the program and the organizational diagram.	- Rigorous analysis of the client's requirements - Establishment of clear links between these requirements - Clarity of the diagram
3. Develop a preliminary concept.	- Productive search for ideas based on observation of the site and the environment - Consideration of the key elements of the concept - Clear visualization of the concept
4. Ensure the project's compliance.	- Exhaustive gathering of information on the municipal and governmental laws and regulations in force - Accurate verification that the project complies with the Construction Code

	Code:	035N

5. Produce a preliminary sketch.	• Correct rendering of the organizational diagram and the concept in the sketch • Balanced proportions • Attractive organization of space • Clear definition of style taking into account the client's environment and requirements • Aesthetics of form, volume, texture and colour
6. Produce a presentation drawing.	• Appropriate use of graphics and animation software, if applicable • Observance of regulations applicable to the presentation drawing • Accurate rendering of the concept
7. Present the drawing to the client.	• Clarity of the presentation • Acceptance of comments • Respect for the client's ideas