

REMEDIAL ACTIVITIES

ENGLISH COLLEGES

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Introduction

Remedial activities allow students who do not meet all the admission requirements for college to acquire the knowledge they lack but which is considered essential for pursuing their college studies.

Remedial activities are determined by the Minister. They allow students to earn college credits that do not count towards a Diploma of College Studies. These activities are taken into account when determining the student's status in terms of type of enrollment (full-time or part-time).

Colleges may offer remedial activities, but are not obliged to do so: thus, they may offer all, some or none of these activities. When an educational institution does not offer the activity a student requires for admission, the student is directed to the secondary-level institution where the course in question is offered, usually at an adult training centre.

This document presents the remedial activities that may be offered in English colleges.

List of Remedial Activities

LANGUAGES

Note: The authorized paths for activities in languages are listed on pages 3 and 6.

- 603-001-50 Remedial Activities for Secondary V English Language Arts
- 603-002-50 Remedial Activities for Secondary V English Language Arts
- 603-003-50 Preparation for College English
- 602-010-50 Initiation au français, langue seconde
- 602-011-50 Initiation au français, langue seconde
- 602-005-50 Pratique du fr., langue seconde, à l'oral et à l'écrit pour les élèves non francophones
- 602-006-50 Pratique du fr., langue seconde, à l'oral et à l'écrit pour les élèves non francophones
- 602-007-50 Pratique du fr., langue seconde, à l'oral et à l'écrit pour les élèves non francophones
- 602-008-50 Mise à niveau pour Français, langue seconde, de la 5^e secondaire
- 602-009-50 Renforcement en français, langue seconde

MATHEMATICS, SCIENCE AND TECHNOLOGY

Note: Several paths for activities in mathematics are suggested on page 12.

- 201-012-50 Remedial Activities for Secondary IV Mathematics: Cultural, Social and Technical Option
- 201-016-50 Remedial Activities for Secondary IV Mathematics: Technical and Scientific Option
(Course 201-013-50 of the same name will be discontinued as of summer 2014.)
- 201-014-50 Remedial Activities for Secondary V Mathematics: Cultural, Social and Technical Option
- 201-015-50 Remedial Activities for Secondary V Mathematics: Technical and Scientific Option
- 982-002-50 Remedial Activities for Secondary IV Science and Technology
- 982-003-50 Remedial Activities for Secondary IV Environmental Science and Technology
- 202-001-50 Remedial Activities for Secondary V Chemistry
- 203-001-50 Remedial Activities for Secondary V Physics

ARTS

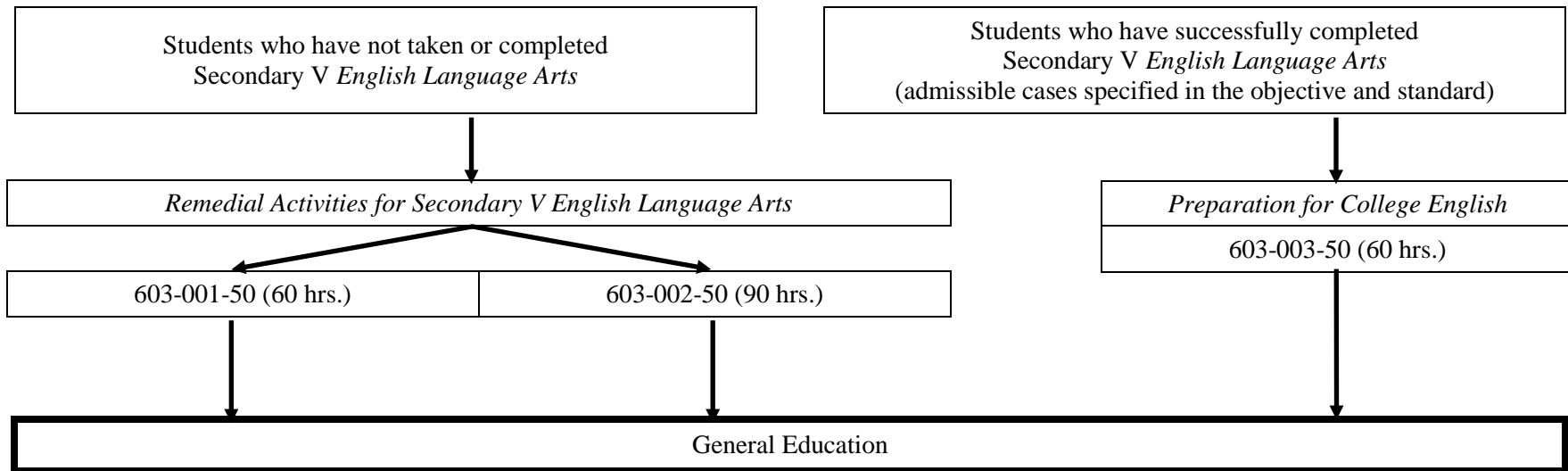
- 551-002-50 Remedial Activities in Music Theory
- 551-003-50 Remedial Activities in Sight-Singing and Dictation
- 551-004-50 Remedial Activities in Music Theory, Sight-Singing and Dictation

SOCIAL SCIENCES

- 330-002-50 Remedial Activities for Secondary IV History and Citizenship Education

AUTHORIZED PATHS IN ENGLISH LANGUAGE ARTS

This diagram illustrates the authorized paths for remedial English Language Arts.



**Remedial Activities for Secondary V English Language Arts
Preparation for College English**

Objective

Standard

Statement of the Competency	
Use basic techniques and rules in the comprehension and communication of various forms of discourse.	
Elements of the Competency	Performance Criteria
1. Comprehend oral and written discourse.	<ul style="list-style-type: none"> • Appropriate recognition of the meaning of words, word groups and idioms • Appropriate recognition of central ideas • Appropriate recognition of supporting ideas and details • Appropriate understanding of techniques used
2. Plan various forms of oral and written discourse.	<ul style="list-style-type: none"> • Appropriate use of preparation strategies • Clear statement of a central idea • Effective planning for the development of a central idea • Clear organization of supporting ideas and details
3. Produce a discourse.	<ul style="list-style-type: none"> • Production of a 500-word written discourse • Clear formulation of a thesis statement • Consistent development of supporting ideas • Appropriate use of grammar and syntax • Appropriate use of spelling, punctuation and capitalization • Appropriate choice and use of words • Appropriate development of sentences and paragraphs
4. Edit the discourse.	<ul style="list-style-type: none"> • Appropriate use of revision strategies • Accurate correction of the discourse

Remedial Activities for Secondary V English Language Arts
Preparation for College English

Learning Activities

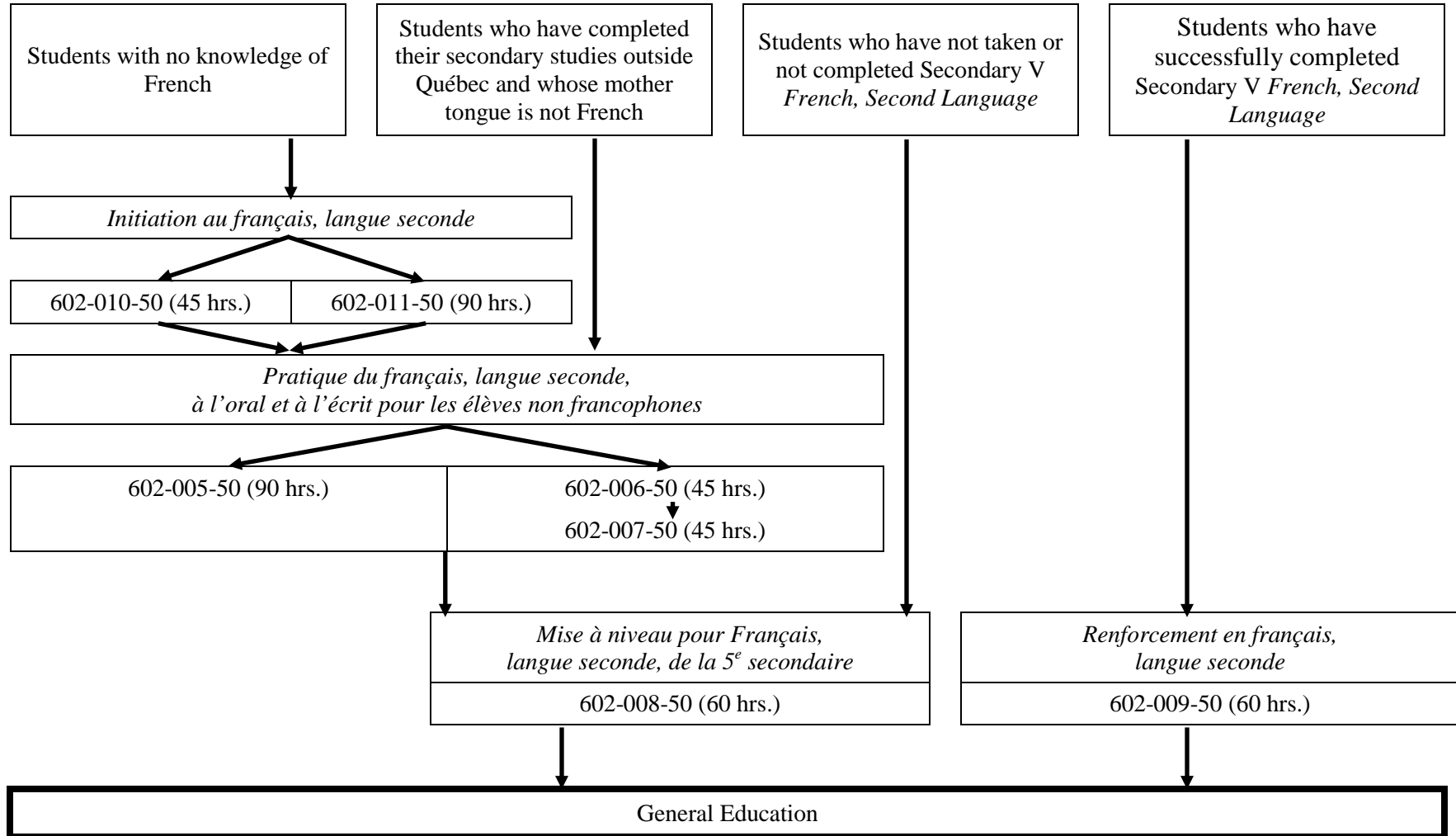
Discipline:	English, Language of Instruction and Literature	
Weighting:	2-2-4	3-3-6
Number of credits:	2 $\frac{2}{3}$	4
Number of hours of instruction:	60	90
Codes and titles:	603-001-50 603-002-50 → Remedial Activities for Secondary V English Language Arts	

- Note:
- ▶ Colleges will use code 603-001-50 or 603-002-50 for students who have not taken or not completed *Secondary V English Language Arts*.
 - ▶ Colleges will use code 603-003-50 for students who have successfully completed *Secondary V English Language Arts* but who demonstrate significant gaps in their mastery of the language.
 - For Québec graduates in general education in the youth sector, this activity applies to those whose average in secondary school, determined according to criteria established by the Ministère, is less than 75%. Exceptionally, an academic dean may authorize to enroll a student whose average is equal to or higher than 75% if the dean judges that the student's gaps may compromise his or her academic success.
 - In all other cases, colleges apply their own methods for selecting students who must undertake this activity.

The secondary-level program can be consulted on the MELS Web site at:
http://www.mels.gouv.qc.ca/sections/programmeFormation/secondaire2/index_en.asp?page=langues.

AUTHORIZED PATHS IN FRENCH, SECOND LANGUAGE

This diagram illustrates the authorized paths for remedial French. Not all the remedial activities listed in these paths are compulsory for all students. It is the responsibility of the educational institution to have students take the remedial courses that are considered essential to the successful completion of their college studies.



Initiation au français, langue seconde

Objectif

Standard

Énoncé de la compétence

Développer les bases de la communication en français.

Éléments de la compétence

Critères de performance

1. Comprendre un message oral très court et très simple.	<ul style="list-style-type: none"> • Association des sons aux phonèmes. • Reconnaissance du vocabulaire, des expressions et des structures syntaxiques appris en classe. • Identification de l'intention de communication. • Repérage d'éléments d'information très simples.
2. Produire des énoncés oraux dans des situations très simples et prévisibles.	<ul style="list-style-type: none"> • Reproduction correcte des sons. • Réutilisation correcte du vocabulaire, des expressions et des structures syntaxiques appris en classe. • Formulation de phrases simples.
3. Comprendre un message écrit très simple.	<ul style="list-style-type: none"> • Reconnaissance de lettres et de syllabes. • Reconnaissance de mots. • Lecture de mots et de phrases très courtes. • Repérage d'éléments d'information dans des documents relatifs à des besoins courants. • Utilisation appropriée d'un dictionnaire bilingue.
4. Écrire de courts messages et remplir des documents simples.	<ul style="list-style-type: none"> • Reconnaissance des groupes constituant une phrase simple. • Réutilisation correcte du vocabulaire appris en classe. • Respect de l'orthographe des mots appris en classe. • Respect minimal du code grammatical. • Utilisation appropriée d'un dictionnaire bilingue.

Activités d'apprentissage

Discipline :	Français, langue seconde	
Pondération :	1-2-2	2-4-4
Nombre d'unités :	1 $\frac{2}{3}$	3 $\frac{1}{3}$
Nombre d'heures d'enseignement :	45	90
Codes de cours :	602-010-50	602-011-50
Précision :	▶ Cette activité s'adresse à des élèves qui n'ont aucune connaissance du français.	

Pratique du français, langue seconde, à l'oral et à l'écrit pour les élèves non francophones

Objectif

Standard

Énoncé de la compétence	
Comprendre des messages simples et communiquer en français dans des situations prévisibles.	
Éléments de la compétence	Critères de performance
1. Rédiger un court message portant sur un sujet familier.	<ul style="list-style-type: none"> • Reconnaissance des groupes constituant une phrase simple. • Formulation claire d'un message simple d'environ 125 mots. • Respect du code grammatical appris en classe, notamment des accords simples à l'intérieur du groupe nominal et du groupe verbal (présent de l'indicatif, futur proche, introduction au passé composé). • Respect de l'orthographe des mots appris en classe. • Emploi pertinent du vocabulaire de base.
2. Dégager le sens d'un texte bref et simple.	<ul style="list-style-type: none"> • Compréhension globale du sens d'un texte d'environ 200 mots. • Repérage des idées principales. • Repérage d'éléments d'information. • Compréhension adéquate du vocabulaire de base. • Utilisation pertinente des stratégies de lecture.
3. Produire un message oral bref et simple.	<ul style="list-style-type: none"> • Planification de la communication. • Formulation claire et cohérente de phrases simples. • Emploi pertinent du vocabulaire de base. • Prononciation intelligible, intonation et débit appropriés à la situation de communication.
4. Comprendre un message oral simple.	<ul style="list-style-type: none"> • Discrimination juste des sons. • Identification du sens général. • Repérage d'éléments d'information. • Reconnaissance du vocabulaire de base.

Pratique du français, langue seconde, à l'oral et à l'écrit pour les élèves non francophones

Activités d'apprentissage

Discipline :	Français, langue seconde	
Pondération :	2-4-4	1-2-2
Nombre d'unités :	3 $\frac{1}{3}$	1 $\frac{2}{3}$
Nombre d'heures d'enseignement :	90	45
Codes de cours :	602-005-50	602-006-50 602-007-50
Précision :	▶ Cette activité s'adresse à des élèves qui ont fait leurs études secondaires à l'extérieur du Québec et dont la langue maternelle n'est pas le français.	

Mise à niveau pour Français, langue seconde, de la 5^e secondaire
Renforcement en français, langue seconde

Objectif

Standard

Énoncé de la compétence	
Comprendre et produire des messages simples en français.	
Éléments de la compétence	Critères de performance
1. Rédiger et réviser un texte simple portant sur un sujet familier.	<ul style="list-style-type: none"> • Formulation claire d'un texte d'environ 200 mots. • Organisation cohérente des idées. • Élaboration suffisante du contenu. • Emploi pertinent du vocabulaire lié au sujet. • Rédaction de phrases simples généralement correctes. • Respect de l'orthographe des mots courants, appris en classe ou trouvés dans les textes étudiés. • Respect du code grammatical, notamment des accords simples à l'intérieur du groupe nominal et du groupe verbal (présent de l'indicatif, présent de l'impératif, futur proche, passé immédiat, passé composé). • Utilisation appropriée de stratégies de révision. • Correction satisfaisante des erreurs.
2. Dégager le sens d'un texte simple portant sur un sujet familier.	<ul style="list-style-type: none"> • Interprétation correcte du sens général d'un texte d'environ 350 mots. • Repérage des idées principales. • Repérage d'éléments d'information. • Compréhension adéquate du vocabulaire lié au sujet. • Utilisation pertinente des stratégies de lecture.
3. Produire un message oral simple portant sur un sujet familier.	<ul style="list-style-type: none"> • Formulation claire du message. • Organisation cohérente des idées. • Élaboration suffisante du contenu. • Emploi pertinent du vocabulaire lié au sujet. • Respect des règles syntaxiques. • Prononciation intelligible, intonation et débit appropriés à la situation de communication.
4. Dégager le sens d'un message oral simple portant sur un sujet familier.	<ul style="list-style-type: none"> • Interprétation correcte du sens général. • Repérage des idées principales. • Repérage d'éléments d'information. • Compréhension adéquate du vocabulaire lié au sujet.

Mise à niveau pour Français, langue seconde, de la 5^e secondaire
Renforcement en français, langue seconde

Activités d'apprentissage

Discipline :	Français, langue seconde
Pondération :	3-1-3
Nombre d'unités :	2 ½
Nombre d'heures d'enseignement :	60
Codes et titres de cours :	602-008-50 → Mise à niveau pour Français, langue seconde, de la 5 ^e secondaire 602-009-50 → Renforcement en français, langue seconde
Précisions :	<ul style="list-style-type: none">▶ Les collèges utiliseront le code 602-008-50 pour les élèves qui n'ont pas suivi ou réussi <i>Français, langue seconde</i> de la 5^e secondaire.▶ Les collèges utiliseront le code 602-009-50 pour les élèves qui ont réussi <i>Français, langue seconde</i> de la 5^e secondaire et qui ont des lacunes importantes dans la maîtrise de la langue.

Le programme du secondaire peut être consulté sur le site Web du ministère de l'Éducation, du Loisir et du Sport :

http://www.mels.gouv.qc.ca/sections/programmeFormation/secondaire2/index_en.asp?page=langues.

SUGGESTED PATHS IN MATHEMATICS

Teachers who participated in developing the remedial activities in mathematics suggest the following paths.

Last course successfully completed	Suggested paths for remedial activities
Pre-Sec. IV level	Sec. IV CST → Sec. V CST or Sec. IV CST → Sec. IV TS → Sec. V TS
Sec. IV CST	Sec. V CST or Sec. IV TS → Sec. V TS
Sec. IV TS or S	Sec. V TS
Sec. V CST	Sec. IV TS → Sec. V TS
Mathematics 416	Sec. IV CST → Sec. V CST or Sec. IV CST → Sec. IV TS → Sec. V TS
Mathematics 426 or 436	Sec. V TS
Mathematics 514	Sec. IV CST → Sec. IV TS → Sec. V TS

Note: The suggestion to take Sec. IV CST before taking Sec. IV TS is based on the way the remedial activities have been designed.

Abbreviations

CST: Mathematics: Cultural, Social and Technical Option

TS: Mathematics: Technical and Scientific Option

S: Mathematics: Science Option

Remedial Activities for Secondary IV Mathematics: Cultural, Social and Technical Option

Objective

Standard

Statement of the Competency	
Analyze problems by using concepts in algebra, statistics, probability theory and geometry.	
Elements of the Competency	Performance Criteria
1. Describe the properties of a real function represented by its equation or by its graph.	<ul style="list-style-type: none"> • Precise definition of the concept of function • Accurate identification of the characteristics (e.g. domain, x- and y-intercepts) of a polynomial function of degree less than 3, an exponential function or a piecewise function • Appropriate choice and use of representation • Appropriate translation from the graph to the rule of correspondence
2. Solve problems involving linear relationships.	<ul style="list-style-type: none"> • Appropriate modelling of the problem in terms of equations or inequalities • Correct application of the methods for solving a system of linear equations in two variables • Correct application of the method for solving a linear inequality in one variable • Accurate interpretation of results
3. Analyze situations using probabilities.	<ul style="list-style-type: none"> • Correct identification of a random variable • Correct distinction between theoretical, experimental and subjective probabilities • Correct distinction between probability and odds • Exact calculation of the probability of an event • Exact calculation and correct interpretation of the mathematical expectation of a random variable • Appropriate prediction based on the mathematical expectation
4. Analyze statistical data.	<ul style="list-style-type: none"> • Accurate calculation of measures of position • Appropriate interpretation of measures of position and of dispersion • Correct construction of a two-variable distribution table • Appropriate construction of a scatter plot • Qualitative interpretation of the correlation between two variables • Appropriate representation and interpretation of the regression line

Remedial Activities for Secondary IV Mathematics: Cultural, Social and Technical Option

<p>5. Solve problems pertaining to analytic geometry.</p>	<ul style="list-style-type: none"> • Appropriate modelling of the problem • Exact calculation of the distance between two points • Exact calculation of the slope of a straight line • Exact identification of the relative position of two straight lines • Precise determination of straight-line equations using the concepts of parallel and perpendicular lines • Accurate interpretation of results
<p>6. Solve problems by using triangles.</p>	<ul style="list-style-type: none"> • Appropriate modelling of the problem • Appropriate use of the knowledge of similar triangles • Appropriate choice and application of trigonometric ratios or the law of sines • Correct application of Hero's formula • Accurate interpretation of results

Learning Activities

Discipline:	Mathematics
Weighting:	3-2-3
Number of credits:	2 $\frac{2}{3}$
Number of hours of instruction:	75
Code:	201-012-50

The secondary-level program can be consulted on the MELS Web site at:

http://www.mels.gouv.qc.ca/sections/programmeFormation/secondaire2/index_en.asp?page=math.

Remedial Activities for Secondary IV Mathematics: Technical and Scientific Option

Objective

Standard

Statement of the Competency	Performance Criterion (for the competency as a whole)
Analyze problems by using concepts in algebra and geometry.	<ul style="list-style-type: none"> • Use of appropriate terminology
Elements of the Competence	Performance Criteria
1. Manipulate numerical and algebraic expressions.	<ul style="list-style-type: none"> • Appropriate factoring of algebraic expressions (finding the common factor and factoring by grouping, perfect square trinomial, difference of two squares) • Correct application of the properties of exponents and radicals
2. Analyze situations by using real functions.	<ul style="list-style-type: none"> • Appropriate modelling of the situation • Appropriate use of the multiplicative parameters • Correct determination of the properties (domain, range, sign, variation, extrema, x- and y-intercepts) of an exponential, second-degree polynomial or piecewise function • Interpretation and graphical representation of a periodic function and of the inverse of an exponential or second-degree polynomial function • Accurate interpretation of results
3. Solve problems by using equations.	<ul style="list-style-type: none"> • Appropriate modelling of the problem • Correct application of the methods for solving second-degree equations (factoring and zero product rule) • Correct application of the methods for solving exponential equations, with or without logarithms (definition and changing bases) • Correct application of the methods for solving systems of linear equations in two variables • Accurate interpretation of results
4. Solve problems by using analytic geometry.	<ul style="list-style-type: none"> • Appropriate modelling of the problem • Proper use of trigonometric relations in triangles • Correct determination of the relative position of two straight lines, the equation of a line, the distance between two points and the coordinates of a point of division • Accurate interpretation of results

Remedial Activities for Secondary IV Mathematics: Technical and Scientific Option

Learning Activities

Discipline: Mathematics

Weighting: 2-3-3

Number of credits: $2\frac{2}{3}$

Number of hours of instruction: 75

Code: 201-016-50

Note: ► This activity was developed for students who have mastered the content of the Secondary IV Cultural, Social and Technical Option.

The secondary-level program can be consulted on the MELS Web site at:

http://www.mels.gouv.qc.ca/sections/programmeFormation/secondaire2/index_en.asp?page=math.

Remedial Activities for Secondary IV Mathematics: Technical and Scientific Option

Objective

Standard

Statement of the Competency	
Analyze problems by using concepts in algebra, statistics and geometry.	
Elements of the Competency	Performance Criteria
1. Manipulate numerical and algebraic expressions.	<ul style="list-style-type: none"> • Appropriate factoring of algebraic expressions • Correct application of the properties of exponents and radicals
2. Analyze situations by using real functions.	<ul style="list-style-type: none"> • Appropriate modelling of the situation • Correct determination of the properties (e.g. domain, x- and y-intercepts) of an exponential function or a second-degree polynomial, sine or piecewise function • Interpretation and graphical representation of the inverse of an exponential function or a second-degree polynomial function • Appropriate use of the multiplicative parameters • Accurate interpretation of results
3. Solve problems by using equations.	<ul style="list-style-type: none"> • Appropriate modelling of the problem • Correct application of the methods for solving second-degree or exponential equations • Correct application of the methods for solving systems of linear equations in two variables • Accurate interpretation of results
4. Analyze statistical data.	<ul style="list-style-type: none"> • Correct calculation and interpretation of measures of dispersion • Correct construction and interpretation of a data table for one- or two-variable distributions • Correct calculation and interpretation of the coefficient of a linear correlation between two variables • Correct calculation, representation and interpretation of the regression line
5. Solve problems by using analytic geometry.	<ul style="list-style-type: none"> • Appropriate modelling of the problem • Proper use of the main lines and the characteristics of triangles (e.g. altitude, median, midpoint) • Accurate interpretation of results

Remedial Activities for Secondary IV Mathematics: Technical and Scientific Option

Learning Activities

Discipline: Mathematics

Weighting: 2-2-2

Number of credits: 2

Number of hours of instruction: 60

Code: 201-013-50

Note:

- ▶ This activity was developed for students who have mastered the content of the Secondary IV Cultural, Social and Technical Option.
- ▶ **This activity will no longer be offered as of summer 2014, at which time it will be permanently replaced by course 201-016-50 of the same name.**

The secondary-level program can be consulted on the MELS Web site at:

http://www.mels.gouv.qc.ca/sections/programmeFormation/secondaire2/index_en.asp?page=math.

Remedial Activities for Secondary V Mathematics: Cultural, Social and Technical Option

Objective

Standard

Statement of the Competency

Analyze problems by using graphs and concepts in algebra, probability theory and geometry.

Elements of the Competency

Performance Criteria

1. Optimize situations by using linear inequalities.

- Appropriate modelling of the situation
- Accurate solution of a system of linear inequalities in two variables by using a polygon of constraints
- Accurate interpretation of results
- Proper formulation of the changes in the constraints and correct interpretation of the effects of these changes

2. Analyze situations by using conditional probability.

- Accurate distinction between dependence and independence
- Appropriate modelling of a situation
- Appropriate representation of a situation (e.g. tables, tree diagrams, Venn diagrams)
- Precise calculation of the conditional probability related to a situation
- Accurate interpretation of results

3. Solve geometry problems.

- Appropriate modelling of the problem
- Precise calculation of unknown measurements (angle, length, area, volume) by using the properties of similar figures and solids, as well as metric and trigonometric relations
- Accurate interpretation of results

4. Optimize situations by using the concept of a graph.

- Appropriate representation and modelling of a situation by using a graph (directed, coloured, weighted or non-weighted)
- Correct application of graph theory (e.g. Euler path, Hamiltonian path, shortest path)
- Accurate interpretation of results

Learning Activities

Discipline: Mathematics
 Weighting: 2-1-2
 Number of credits: 1 $\frac{2}{3}$
 Number of hours of instruction: 45
 Code: 201-014-50

The secondary-level program can be consulted on the MELS Web site at:

http://www.mels.gouv.qc.ca/sections/programmeFormation/secondaire2/index_en.asp?page=math.

Remedial Activities for Secondary V Mathematics: Technical and Scientific Option

Objective

Standard

Statement of the Competency	
Analyze problems by using concepts in algebra and geometry.	
Elements of the Competency	Performance Criteria
1. Analyze situations by using real functions.	<ul style="list-style-type: none"> • Appropriate modelling of the situation • Correct determination of the properties (e.g. domain, x- and y-intercepts) and the inverse of an exponential or a logarithmic function, or a second-degree polynomial, square-root, sinusoidal, tangent, rational or piecewise function • Appropriate use of the additive and multiplicative parameters • Algebraic manipulation according to the rules (including polynomial division and the composition of functions) • Accurate interpretation of results
2. Solve problems by using equations and inequalities.	<ul style="list-style-type: none"> • Appropriate modelling of the problem • Correct application of the methods for solving equations and inequalities in one variable (second-degree, square root, rational, exponential, logarithmic, trigonometric) • Correct application of the methods for solving systems of equations involving various functional models • Accurate interpretation of results
3. Solve problems involving equivalent figures.	<ul style="list-style-type: none"> • Appropriate modelling of the problem • Appropriate use of the properties of similar figures (length, area, volume) • Accurate interpretation of results
4. Solve problems by using geometric vectors.	<ul style="list-style-type: none"> • Appropriate modelling of the problem • Appropriate use of vectors (addition, multiplication by a scalar, scalar product) • Accurate interpretation of results

Remedial Activities for Secondary V Mathematics: Technical and Scientific Option

5. Solve problems by using circles and trigonometry.
- Appropriate modelling of the problem
 - Appropriate construction of a standard unit circle and location of its significant points
 - Appropriate application of the laws of sines and cosines
 - Appropriate manipulation of trigonometric identities
 - Appropriate use of metric relations in circles (e.g. degree, radian, chord, arc, circular sector and segment, inscribed angle)
 - Accurate interpretation of results

Learning Activities

Discipline: Mathematics
Weighting: 4-2-4
Number of credits: $3\frac{1}{3}$
Number of hours of instruction: 90
Code: 201-015-50
Note: ► This activity was developed for students who have mastered the content of the Secondary IV Technical and Scientific or Science Options.

The secondary-level program can be consulted on the MELS Web site at:

http://www.mels.gouv.qc.ca/sections/programmeFormation/secondaire2/index_en.asp?page=math.

Remedial Activities for Secondary IV Science and Technology

Objective

Standard

Statement of the Competency	
Analyze the behaviour of matter and the transformation of energy by using scientific principles.	
Elements of the Competency	Performance Criteria
1. Explain the properties of matter based on its representations and the periodic table.	<ul style="list-style-type: none"> • Accurate description of the Rutherford-Bohr atomic model • Appropriate use of the Lewis notation • Appropriate comparison of the periodic table (families and periods) and atomic structure
2. Solve problems involving chemical changes.	<ul style="list-style-type: none"> • Appropriate explanation of basic chemical changes (e.g. combustion, neutralization) • Accurate description of the biogeochemical cycles of carbon and nitrogen • Correct application of the law of the conservation of matter to simple chemical changes
3. Determine certain properties of solutions.	<ul style="list-style-type: none"> • Accurate calculation of concentrations (mole/L, %, ppm) • Correct use of the pH scale to determine the acidity or basicity of a solution • Appropriate evaluation of the electrical conductivity of a solution • Appropriate description of the reactions of electrolytic dissociation
4. Apply basic principles of electricity and electromagnetism to simple situations.	<ul style="list-style-type: none"> • Appropriate description of the concept of an electrical charge and of static electricity phenomena • Pertinent use of Ohm's law (series and parallel circuits) • Appropriate use of the relationship between power, energy and time • Appropriate description of magnetic forces (attraction and repulsion) and the magnetic field of a straight live wire
5. Describe the transformation of energy.	<ul style="list-style-type: none"> • Appropriate use of the qualitative aspects of the law of conservation of energy (e.g. mechanical, electrical, thermal)
6. Verify, using the experimental approach, several scientific laws and principles.	<ul style="list-style-type: none"> • Appropriate implementation of an experimental procedure • Accurate interpretation of results • Appropriate communication of results

Remedial Activities for Secondary IV Science and Technology

Learning Activities

Discipline: Science and Technology

Weighting: 2-1-3

Number of credits: 2

Number of hours of instruction: 45

Code: 982-002-50

Note: ► For students who will be following *Remedial Activities for Secondary IV Science and Technology* as well as *Remedial Activities for Secondary IV Environmental Science and Technology*, it is advisable that the two activities be taken concurrently.

The secondary-level program can be consulted on the MELS Web site at:

http://www.mels.gouv.qc.ca/sections/programmeFormation/secondaire2/index_en.asp?page=math.

Remedial Activities for Secondary IV Environmental Science and Technology

Objective

Standard

Statement of the Competency	
Analyze genetic phenomena, the behaviour of matter and the transformation of energy by using scientific principles.	
Elements of the Competency	Performance Criteria
1. Explain the properties of matter based on its representations and the periodic table.	<ul style="list-style-type: none"> • Accurate description of the simplified atomic model (Rutherford-Bohr-Chadwick) • Accurate use of the concept of mole (Avogadro's number) • Correct identification of the periodicity of physical and chemical properties based on the periodic table
2. Solve problems involving chemical changes and nuclear transformations.	<ul style="list-style-type: none"> • Accurate calculation of concentrations (mole/L) • Correct identification of the oxidation reaction • Accurate determination of the molecular formula for salts • Accurate calculation of the quantities of matter involved in a reaction • Proper identification of the nature of a chemical bond (ionic or covalent) • Proper identification of the endothermic or exothermic character of a reaction • Correct description of the biogeochemical phosphorus cycle • Proper description of isotopes and nuclear phenomena (fission, fusion and radioactivity)
3. Solve problems by using the laws of electricity and electromagnetism.	<ul style="list-style-type: none"> • Appropriate use of Kirchhoff's laws (series, parallel or mixed circuits) • Accurate calculation of equivalent resistances • Correct use of Coulomb's law • Appropriate description of the magnetic field of a solenoid

Remedial Activities for Secondary IV Environmental Science and Technology

4. Solve problems involving the transformation of energy.	<ul style="list-style-type: none"> • Accurate definition of the concepts of heat, temperature, mass, weight, force, effective force, work and energy (kinetic, potential and heat) • Appropriate use of the relationship between mass and weight • Appropriate use of the relationship between work, force and travel • Appropriate use of the relationship between work and energy • Appropriate use of the relationship between potential energy, mass, gravitational constant and travel • Appropriate use of the relationship between kinematic energy, mass and velocity • Appropriate use of the relationship between heat energy, specific heat capacity, mass and temperature variation
5. Describe the basic characteristics related to genetics.	<ul style="list-style-type: none"> • Proper definition of the vocabulary associated with genetics (gene, allele, gamete, genotype and phenotype, homozygote and heterozygote, dominance and recessivity) • Accurate description of genetic phenomena (heredity, cross-breeding) • Accurate description of the stages of protein synthesis (transcription, translation)
6. Verify, using the experimental approach, several scientific laws and principles.	<ul style="list-style-type: none"> • Appropriate implementation of an experimental procedure • Accurate interpretation of results • Appropriate communication of results

Learning Activities

Discipline:	Science and Technology
Weighting:	4-1-3
Number of credits:	2 ² / ₃
Number of hours of instruction:	75
Code:	982-003-50
Note:	► For students who will be following <i>Remedial Activities for Secondary IV Science and Technology</i> as well as <i>Remedial Activities for Secondary IV Environmental Science and Technology</i> , it is advisable that the two activities be taken concurrently.

The secondary-level program can be consulted on the MELS Web site at:

http://www.mels.gouv.qc.ca/sections/programmeFormation/secondaire2/index_en.asp?page=math.

Remedial Activities for Secondary V Chemistry

Objective

Standard

Statement of the Competency	
Analyze the behaviour of matter and the transformation of energy using the principles of chemistry.	
Elements of the Competency	Performance Criteria
1. Analyze the behaviour of an ideal gas based on its properties.	<ul style="list-style-type: none"> • Accurate description of the behaviour of gases using the Kinetic theory • Correct application of laws involving pressure, volume, temperature and the number of moles • Correct application of the ideal gas law • Correct application of the law of partial pressures
2. Analyze the energy changes in a chemical reaction.	<ul style="list-style-type: none"> • Correct production of an energy diagram and accurate interpretation of its components • Accurate determination of the molar heat of a reaction (e.g. Hess's law, calorimetry) • Appropriate interpretation of the enthalpy change
3. Explain the reaction rate.	<ul style="list-style-type: none"> • Appropriate explanation of the effect of the following factors on the reaction rate: nature of the reactants, concentration, surface area, temperature and catalyst • Appropriate use of the rate law
4. Solve problems related to the concept of the equilibrium of a reaction.	<ul style="list-style-type: none"> • Correct statement of the algebraic expression of a reaction's equilibrium constant (e.g. water ionization, acidity, alkalinity, solubility-product) • Appropriate prediction of the behaviour of systems in a state of equilibrium that are subjected to variations in concentration, temperature and pressure, using Le Chatelier's principle • Appropriate use of the relationship between the equilibrium constant of a reaction and the concentration of products and reactants • Correct interpretation of the value of the equilibrium constant • Appropriate use of the relationship between the pH and the molar concentration of hydronium and hydroxide ions

Remedial Activities for Secondary V Chemistry

5. Carry out an experiment to verify several laws and principles of chemistry.
- Appropriate implementation of an experimental procedure
 - Appropriate determination of the uncertainty related to measurements
 - Accurate interpretation of results
 - Appropriate communication of results

Learning Activities

Discipline: Chemistry
Weighting: 3-2-3
Number of credits: $2\frac{2}{3}$
Number of hours of instruction: 75
Code: 202-001-50

The secondary-level program can be consulted on the MELS Web site at:

http://www.mels.gouv.qc.ca/sections/programmeFormation/secondaire2/index_en.asp?page=math.

Remedial Activities for Secondary V Physics

Objective

Standard

Statement of the Competency	
Analyze different situations based on the fundamental principles of classical mechanics and geometric optics.	
Elements of the Competency	Performance Criteria
1. Solve problems by using uniform rectilinear motion and uniformly accelerated rectilinear motion.	<ul style="list-style-type: none"> • Appropriate representation of the situation • Correct identification and comparison of the parameters of motion (position, speed, acceleration, time) • Correct use of kinematic graphs and equations • Accurate interpretation of results
2. Solve problems by using the principles of dynamics.	<ul style="list-style-type: none"> • Relevant definition of the concepts of mass and force • Appropriate vectorial representation of the forces acting on a body • Correct determination of the resultant of a set of forces using the graphical method • Appropriate use of Newton's laws and rigorous interpretation of results
3. Solve problems that involve the conservation of mechanical energy.	<ul style="list-style-type: none"> • Appropriate use of Hooke's law • Accurate calculation of the power produced or transmitted during the transformation of mechanical energy • Accurate determination of the different forms of a system's mechanical energy (potential and kinetic) • Appropriate use of the conservation of mechanical energy and rigorous interpretation of results
4. Solve problems by using the fundamental principles of geometric optics.	<ul style="list-style-type: none"> • Appropriate use of the laws of reflection and refraction • Accurate determination of the characteristics of an image (nature, position, size, orientation) formed by a thin lens or a mirror (plane, spherical)
5. Verify, using the experimental approach, several laws or principles of classical mechanics and geometric optics.	<ul style="list-style-type: none"> • Appropriate implementation of the experimental procedure • Appropriate determination of the uncertainty related to measurements • Accurate interpretation of results • Appropriate communication of results

Remedial Activities for Secondary V Physics

Learning Activities

Discipline:	Physics
Weighting:	3-2-3
Number of credits:	2 $\frac{2}{3}$
Number of hours of instruction:	75
Code:	203-001-50

The secondary-level program can be consulted on the MELS Web site at:

http://www.mels.gouv.qc.ca/sections/programmeFormation/secondaire2/index_en.asp?page=math.

Remedial Activities in Music Theory

Objective

Standard

Statement of the Competency	Achievement Context
Integrate the fundamental elements of music theory.	<ul style="list-style-type: none"> • Based on musical texts in the keys of G and F
Elements of the Competency	Performance Criteria
1. Recognize the fundamental elements of music notation.	<ul style="list-style-type: none"> • Exact identification of notes and corresponding rests • Precise identification of simple metres (2/4, 3/4, 4/4) and compound metres (6/8) • Exact identification of accidentals • Correct definition and qualification of simple intervals and their inversions • Correct definition of major and minor scales (of the three types) in keys containing a maximum of three sharps or flats • Correct definition of major and minor triads in all positions • Accurate identification of musical terms indicating tempo and dynamics
2. Apply the fundamental elements of music notation.	<ul style="list-style-type: none"> • Exact notation of symbols for notes and corresponding rests • Correct use of simple and compound time signatures • Correct use of sharps and flats • Exact notation of simple intervals and their inversions • Exact notation of scales and correct differentiation of their respective degrees • Exact notation of major and minor triads (three-note chords) in all positions
Learning Activities	
Discipline:	Music
Weighting:	1-0-1
Number of credits:	$\frac{2}{3}$
Number of hours of instruction:	15
Code:	551-002-50
Note:	<ul style="list-style-type: none"> ▶ These remedial activities are intended for students enrolled in the preuniversity program <i>Music</i> (501.A0) or the <i>Professional Music and Song Techniques</i> (551.A0) program. Thus, they can be taken in conjunction with the first music theory course offered in the program, although they are not considered part of the program.

Remedial Activities in Sight-Singing and Dictation

Objective

Standard

Statement of the Competency

Demonstrate auditory acuity in the vocal performance and transcription of musical texts.

Elements of the Competency

Performance Criteria

1. Sight-read a musical text by naming the notes.

- Solmization in the keys of G and F
- Correct application of the elements of music theory
- Accurate intonation
- Rhythmic precision

2. Transcribe a musical selection upon hearing it.

- Accurate notation of melody and rhythm
- Correct application of the elements of music theory
- Accurate identification and transcription of simple intervals
- Accurate identification and transcription of major and minor triads (three-note chords)

Learning Activities

Discipline: Music
 Weighting: 1-1-2
 Number of credits: 1 ½
 Number of hours of instruction: 30
 Code: 551-003-50
 Note:

► These remedial activities are intended for students enrolled in the preuniversity program *Music* (501.A0) or the *Professional Music and Song Techniques* (551.A0) program. Thus, they can be taken in conjunction with the first sight-singing and dictation course offered in the program, although they are not considered part of the program.

Remedial Activities in Music Theory, Sight-Singing and Dictation

Objective

Standard

Statement of the Competency	Achievement Context
Integrate the fundamental elements of music theory and to demonstrate auditory acuity in the vocal performance and transcription of musical texts.	<ul style="list-style-type: none"> • Based on musical texts in the keys of G and F
Elements of the Competency	Performance Criteria
1. Recognize the fundamental elements of music notation.	<ul style="list-style-type: none"> • Exact identification of notes and corresponding rests • Precise identification of simple metres (2/4, 3/4, 4/4) and compound metres (6/8) • Exact identification of accidentals • Correct definition and qualification of simple intervals and their inversions • Correct definition of major and minor scales (of the three types) in keys containing a maximum of three sharps or flats • Correct definition of major and minor triads in all positions • Accurate identification of musical terms indicating tempo and dynamics
2. Apply the fundamental elements of music notation.	<ul style="list-style-type: none"> • Exact notation of symbols for notes and corresponding rests • Correct use of simple and compound time signatures • Correct use of sharps and flats • Exact notation of simple intervals and their inversions • Exact notation of scales and correct differentiation of their respective degrees • Exact notation of major and minor triads (three-note chords) in all positions
3. Sight-read a musical text by naming the notes.	<ul style="list-style-type: none"> • Solmization in the keys of G and F • Correct application of the elements of music theory • Accurate intonation • Rhythmic precision

Remedial Activities in Music Theory, Sight-Singing and Dictation

4. Transcribe a musical selection upon hearing it.
- Accurate notation of melody and rhythm
 - Correct application of the elements of music theory
 - Accurate identification and transcription of simple intervals
 - Accurate identification and transcription of major and minor triads (three-note chords)

Learning Activities

Discipline:	Music
Weighting:	2-1-3
Number of credits:	2
Number of hours of instruction:	45
Code:	551-004-50
Note:	► The students enrolled in these remedial activities must also be enrolled in <i>Springboard to a DCS</i> .

Remedial Activities for Secondary IV History and Citizenship Education

Objective

Standard

Statement of the Competency

Interpret social phenomena of Québec from the 16th century to the present from a historical perspective.

Elements of the Competency

Performance Criteria

1. Trace the way in which Québec society has evolved over time.

- In terms of the following social phenomena:
- population and settlement
 - economy and development
 - culture and currents of thought
 - official power and countervailing powers
 - Clear differentiation of the main time periods
 - Establishment of relevant links between spatial and temporal dimensions
 - Sound establishment of the facts related to social phenomena
 - Precise identification of the stakeholders: individuals, peoples, social groups and institutions

2. Analyze change and continuity in the history of Québec society.

- In terms of the following social phenomena:
- population and settlement
 - economy and development
 - culture and currents of thought
 - official power and countervailing powers
 - Correct identification of change and continuity by relating facts over the long term
 - Accurate assessment of the role and interests of the stakeholders
 - Correct determination of the causes and context of change
 - Coherent explanation of the consequences of change
 - Coherent establishment of links between past and present

3. Use historical documents to analyze social phenomena.

- Critical analysis of sources
- Correct interpretation of historical documents

Learning Activities

Discipline: History
 Weighting: 2-1-3
 Number of credits: 2
 Number of hours of instruction: 45
 Code: 330-002-50

The secondary-level program can be consulted on the MELS Web site at:
http://www.mels.gouv.qc.ca/sections/programmeFormation/secondaire2/index_en.asp?page=social.

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Québec 