



**Faculty of Education**

**Programs, Courses and Univer**



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This publication provides guidance to prospects, applicants, students, faculty and staff.

**1 .** McGill University reserves the right to mak

## *Publication Information*

Published by

### **Enrolment Services**

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Canada

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### 3.6 A.S. Lamb Learning Centre

The A.S. Lamb Learning Centre, consisting of the computer laboratory and the reading room, is located on the second floor of the Sir Arthur Currie Memorial Gymnasium. The computer lab houses 25 computers connected to the McGill network and is available for courses, workshops, and individual use by students and staff. Laser printing is also available at a cost. Access to the McGill wireless network is available for laptops equipped with a wireless card.

LAN Tech.: Mr. Sanjeev Panigrahy  
Location: McGill Sports Complex, Room 207A  
475 Pine Avenue West  
Website: [www.mcgill.ca/edu-kpe/facilities/asllc](http://www.mcgill.ca/edu-kpe/facilities/asllc)

#### Hours

Monday to Friday 09:00–16:00

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### 3.7 Office of Student Teaching (OST)

The Office of Student Teaching is responsible for the planning and implementation of field experiences and arranging with school boards and schools for the placement of student teachers in the Bachelor of Education and Masters in Education programs. The Office coordinates student teaching among Departments within the Faculty, and develops partnerships with the education community. The Office offers training to colleagues in schools.

#### Office Hours

Monday to Friday 08:30–17:00

Director: Professor Fiona J. Benson  
Office: Education Building, Room 431A  
Telephone: 514-398-7046  
[Fll.ca/edu-rs](http://Fll.ca/edu-rs)

### 3.9.2 The Office of Leadership in Community and International Initiatives

Formerly the Centre for Educational Leadership (CEL), the office of Leadership in Community and International Initiatives (LCII) is a newly created unit in the Faculty of Education. The goals of LCII are:

- to develop, facilitate, enhance, and leverage collaborations, partnerships, and exchanges with various local, national, or international institutions and communities through a central, tightly aligned and well integrated administrative structure;
- to optimize existing and foster new possibilities for collaborations and partnerships including community-based research, professional development / research activities, and seminars and workshops; and
- to bridge theory and practice based on ethical and socially conscious initiatives.

Director: Dr. Lynn Butler-Kisber

Email: [lynn.butlerkisber@mcgill.ca](mailto:lynn.butlerkisber@mcgill.ca)

### 3.9.3 The International Centre for Youth Gambling Problems and High-Risk Behaviors

McGill University's International Centre for Youth Gambling Problems and High-Risk Behaviors has been attempting to identify and understand the underlying determinants and critical factors related to youth gambling problems and their relationship with other adolescent addictive and high-risk behaviours. The ongoing research efforts conducted by Drs. Derevensky and Gupta, along with their graduate students, have been crucial in helping to identify the determinants placing youth at risk for gambling problems, and in the development of empirically based treatment and prevention programs. Of importance has been the Centre's role in impacting public health and social policy in an effort to reduce and minimize the harms associated with excessive, problematic gambling.

Directors: Dr. Jeffrey Derevensky and Dr. Rina Gupta

### 3.9.4 The Research Centre for Physical Activity and Health

The Research Centre for Physical Activity and Health brings together specialists from different areas of research to investigate the implications of physical activity on health and well-being. The Centre's researchers examine physiological, neuromechanical, or behavioural aspects of physical activity and healthy living, in an attempt to bridge the gap between basic sciences (e.g., cellular physiology) and applied sciences (e.g., clinical exercise physiology) through multidisciplinary research.

Director: Dr. Russell Hepple

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## 4 Revisions – Faculty of Education

### Faculty of Education (Undergraduate)

*section 5.5: Administrative Officers*

### Department of Integrated Studies in Education

*section 10.5: Bachelor of Education (B.Ed.) - Secondary English (120 credits)*

*section 10.6: Bachelor of Education (B.Ed.) - Secondary Mathematics (120 credits)*

*section 10.7: Bachelor of Education (B.Ed.) - Secondary Social Sciences - History and Citizenship, Ethics and Religious Culture (120 credits)*

*section 10.8: Bachelor of Education (B.Ed.) - Secondary Social Sciences - History and Citizenship, Geography (120 credits)*

*section 10.9: Bachelor of Education (B.Ed.) - Secondary Science and Technology (120 credits)*

*section 10.19: Concurrent Bachelor of Music (B.Mus.) - Major Music Education and Bachelor of Education (B.Ed.) - Music Elementary and Secondary (137 credits)*

*section 10.20: Bachelor of Education (B.Ed.) - Kindergarten and Elementary Education (120 credits)*

*section 10.22: Bachelor of Education (B.Ed.) - Kindergarten and Elementary Jewish Studies (120 credits)*

*section 10.23: Bachelor of Education (B.Ed.) - Kindergarten and Elementary Pédagogie de l'Immersion Française (120 credits)*

*section 10.24: Bachelor of Education (B.Ed.) - Teaching French as a Second Language - TFSL - Joint Program with the Université de Montréal (120 credits)*

*section 10.25: Bachelor of Education (B.Ed.) - Teaching English as a Second Language - TESL Elementary and Secondary (120 credits)*



- Minor in Kinesiology for Bachelor of Science students

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## 5.4 Location

3700 McTavish Street  
Montreal, Quebec H3A 1Y2  
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Fax: 514-398-4679

Website: [www.mcgill.ca/education](http://www.mcgill.ca/education)

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## 5.5 Administrative Officers

Revision, August 2013. Start of revision.

### Dean (*Interim*)

Dilson Rassier

### Associate Deans

Alain Breuleux; B.Sc., M.Sc., Ph.D.(Montr.) (*Administration and Infrastructure*)

Dilson Rassier; B.P.E., M.Sc.(Brazil), Ph.D.(Calg.) (*Research*)

Elizabeth Wood; B.F.A.(York), B.F.A.(C'dia), Dip.Ed., M.A., Ph.D.(McG.) (*Academic Affairs*)

### Executive Director (Student Affairs)

Kimiz Dalkir; B.Sc., M.B.A.(McG.), Ph.D.(C'dia)

### Deputy Associate Dean, Graduate Studies

Ingrid E. Sladeczek; B.A., M.S., Ph.D.(Ariz.), A.A.(Md.)

### Unit Heads

France Bouthillier; B.Ed.(UQAM), MBSI(Montr.), Ph.D.(Tor.) – **Director** (*School of Information Studies*)

Jeffrey Derevensky; B.A.(C.W. Post), M.A., Ph.D.(McG.) – **Interim Chair** (*Educational and Counselling Psychology*)

Ralf St. Clair; Dipl.(Moray House), M.Sc. (Heriot-Watt), Ph.D. (Br. Col.) – **Chair** (*Integrated Studies in Education*)

René A. Turcotte; H.B.P.H.E.(Laur.), M.Sc., Ph.D.(Alta.) – **Chair** (*Kinesiology and Physical Education*)

### Office of Student Teaching Director

Fiona Benson; B.A.(Ott.), B.Ed., M.Ed., Ph.D.(McG.)



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## 6 Overview of Faculty Programs

The Faculty of Education offers three different kinds of programs.

**Undergraduate Programs:** The Faculty offers programs leading to the Bachelor of Education (B.Ed.) degree for those wishing to become teachers, and a Bachelor of Science (B.Sc.) – Kinesiology degree.

**Programs of Professional Development:** For qualified teachers wishing to enhance their knowledge and skills, the Faculty offers programs of professional development leading to specialized certificates and diplomas. Most courses that are required to complete these programs are offered in the evenings and in the summer.

**Graduate Programs:** The Faculty offers graduate programs for those already holding a university degree who wish to pursue advanced study and research leading to master's and doctoral degrees in various fields of education and psychology, and library and information studies. A new Master of Arts in Teaching and Learning, which leads to teacher certification, is also offered; more information is available at [www.mcgill.ca/dise/progs/matl](http://www.mcgill.ca/dise/progs/matl).

Undergraduate programs of initial teacher education are described in this publication; programs of professional development are described in the most current School of Continuing Studies *Programs, Courses and University Regulations* publication, and graduate programs are described in the most current Graduate and Postdoctoral Studies *Programs, Courses and University Regulations* publication, both available at [www.mcgill.ca/study](http://www.mcgill.ca/study).

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### Undergraduate Education Pr

The program entails a comprehensive understanding of human movement. Kinesiology is a multidisciplinary field viewing human movement from social, historical, psychological, or biological perspectives. The program provides students with a breadth of theoretical knowledge as well as an opportunity to explore related areas in greater depth, including minor programs available elsewhere within the University. An honours program is available for particularly strong students.

### 6.1.1 General Admission Requirements

For information about admission requirements to the B.Ed., B.Sc.(Kinesiology), or Concurrent B.Mus. and B.Ed. programs, refer to the Undergraduate Admissions Guide, found at [www.mcgill.ca/applying](http://www.mcgill.ca/applying). Please note that applicants to the Concurrent B.Mus. and B.Ed. must apply through the Schulich School of Music.

For information about interfaculty transfers or readmission, see *Programs, Courses and University Regulations > University Regulations and Resources > Registration > : Interfaculty Transfer or : Readmission*, as well as information posted on the Student Affairs Office website, [www.mcgill.ca/edu-sao](http://www.mcgill.ca/edu-sao).

Although no additional prerequisite courses are required, the Faculty recommends that applicants to the B.Ed. Secondary Science & Technology, Secondary Mathematics, and B.Ed. Physical & Health Education programs have appropriate background in Science and Mathematics courses, i.e., biology, chemistry, physics, and mathematics. Students having other backgrounds will be considered for admission, but will be required to complete prerequisite courses in mathematics and science that may increase the number of credits required for the degree.

#### 6.1.1.1 Language Requirement for Applicants to B.Ed. TESL Program

The application process for the B.Ed. TESL program involves several steps. Students first apply to the University indicating their program choice. Those whose academic record meets minimum program requirements will be informed by the University that they are being considered for admission to the B.Ed. TESL program. Students being considered will need to pass written and oral English language proficiency tests as a further admission requirement, and will be contacted by email with information about how to make arrangements to take the test.

### 6.1.2 Credit Requirements

The Bachelor of Education (B.Ed.) requires 120 credits and leads to teacher certification. Students who have not completed Quebec CEGEP, French Baccalaureate, International Baccalaureate, or at least one year of university studies prior to commencing the B.Ed. must also complete a minimum of 30 credits of Freshman courses (in addition to the 120-credit program) for a total of 150 credits. The Bachelor of Science (B.Sc.) – Kinesiology is a 90-credit program. Students who have not completed Quebec CEGEP, French Baccalaureate, International Baccalaureate, or at least one year of university studies are normally enrolled in a four-year B.Sc.(Kinesiology) program, which includes a 30-credit Freshman year for a total of 120 credits.

Students entering the five-year B.Ed., or four-year B.Sc.(Kinesiology) degree are in Year 0 and are required to complete the Freshman requirements applicable to their program.

Students who have completed previous university studies may be awarded transfer credits for their coursework. This can only be determined after the formal application and all necessary supporting documents have been received by Enrolment Services. A minimum of 60 credits must be completed while in residence at McGill University in order to be eligible for a degree. Transfer credits for courses taken more than five (5) years before the time of admission are not permitted in subjects where there have been substantial content changes, nor in any pedagogy courses specific to the Quebec K-11 curriculum. Courses more than five (5) years old in other subject areas may be considered on an individual subject basis by the Program Director. For more details, see the *Undergraduate Admissions Guide*, found at [www.mcgill.ca/applying](http://www.mcgill.ca/applying).

### 6.1.3 Quebec Teacher Certification

Teacher Certification in Quebec is the responsibility of the *Ministère de l'Éducation du Loisir et du Sport* (MELS). Students who complete requirements for the Bachelor of Education degree and who meet the MELS requirements (specified below) are recommended by the University for certification.

#### Language Proficiency

Fluency (oral and written) in the language of instruction is a requirement for all those seeking certification.

#### Confidential declaration concerning judicial record

In June 2005, the National Assembly of Quebec adopted an Act amending the Education Act and the Act respective of private education. The amendments concern the verification of judicial antecedents of persons holding or applying for a permit to teach in the youth, adult, and vocational sectors. Anyone seeking teacher certification in the 3lhq5Ee MELS racherl2 201.483 Tm(ln46.322 Tm(e-year3 Tmuired to compecto tmprential declaration concer)Tjntheir progcial r)T

Ministère de l'Éducation du Loisir et du Sport  
600 Fullum, 10e étage  
Montréal, Québec H2K 4L1  
Telephone: 514-873-4630

Please refer to the following website for further information on obtaining a Quebec Teaching Licence: [www.mels.gouv.qc.ca](http://www.mels.gouv.qc.ca).

It is recommended that applicants intending to teach outside of Quebec obtain information beforehand concerning the requirements for certification.

#### **6.1.3.1 International Students**

In addition to the CAQ and Study Permit, international students in Bachelor of Education programs must obtain a Work Permit (Internship) issued by Citizenship and Immigration Canada as a requirement for the mandatory Field Experiences. Consult the International Students website for more information [www.mcgill.ca/internationalstudents/predeparture/documents](http://www.mcgill.ca/internationalstudents/predeparture/documents).

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## **6.2 Programs of Professional Development**

The Faculty of Education offers programs of professional development in several fields. All such programs are 30 credits, unless otherwise indicated, and may be completed through part-time study. They are intended to provide an opportunity for teachers and other educators to enhance their existing knowledge and skills or to develop new ones, and thus are normally available only to those who are already certified as teachers.

Detailed information regarding general rams are 30 credm(arding ge.777(g)Tj1 0 0 1ul1 0 aredmiTj1 ts for certifiare noe 30 croe 3fiisendatory F0 0 1 142.899 676422 T

Information can be obtained by contacting:

First Nations and Inuit Education (FNIE)  
3700 McTavish Street, Room 244  
Montreal, Quebec H3A 1Y2

Telephone: 514-398-4533

Fax: 514-398-2553

Website: [www.mcgill.ca/dise/fnie](http://www.mcgill.ca/dise/fnie)

### Bachelor of Education – Kindergarten and Elementary First Nations and Inuit Studies Option:

Detailed information about this program may be found in [section 10.21: Bachelor of Education \(B.Ed.\) - Kindergarten and Elementary Education - First Nations and Inuit Studies \(120 credits\)](#).

### Detailed information about the following programs may be found in [section 11: Programs for First Nations and Inuit](#):

Bachelor of Education for Certified Teachers Elementary Education

Certificate in Education for First Nations and Inuit

Certificate in First Nations and Inuit Student Personnel Services (This program is offered by the Department of Educational Psychology and Counselling through First Nations and Inuit Education. Restrictions apply to enrolment.)

Certificate in Middle School Education in Aboriginal Communities

Certificate in First Nations and Inuit Educational Leadership

Certificate in Aboriginal Education for Certified Teachers

Certificate in Aboriginal Literacy Education

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## 7 Faculty Regulations for Undergraduate Programs

Please consult *Programs, Courses and University Regulations > University Regulations and Resources > Undergraduate* for regulations and procedures regarding registration, fees, course load, course change (drop/add), withdrawal, verification, examinations, inter-university transfer, and graduation. In addition, the following section provides regulations specific to Faculty of Education students.



**Note:** Each student in the Faculty of Education must be aware of and comply with the Faculty regulations as stated in this publication. While departmental and Faculty advisers and staff are always available to give advice and guidance, the ultimate responsibility for complete and correct course selection and registration, for compliance with, and completion of, program and degree requirements, for the observance of regulations and deadlines, and for academic records, rests with the student. It is the student's responsibility to seek guidance. Misunderstanding will not be accepted as cause for dispensation from any regulation, deadline, program, or degree requirement.

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### 7.1 Advising

Refer to *Programs, Courses and University Regulations > University Regulations and Resources > Undergraduate > Undergraduate Advising*, and the Student Affairs website, [www.mcgill.ca/edu-sao](http://www.mcgill.ca/edu-sao), for further information. Assistance is also available by emailing: [sao.education@mcgill.ca](mailto:sao.education@mcgill.ca).

All **newly admitted** students are required to consult with an academic adviser prior to the start of the Fall term. For a detailed description of advising and registration procedures, students should refer to *Welcome to McGill* at [www.mcgill.ca/newstudents](http://www.mcgill.ca/newstudents). Additional advising material is also available on the Student Affairs website, [www.mcgill.ca/edu-sao/new/advising](http://www.mcgill.ca/edu-sao/new/advising).

Academic advising for all **returning students** takes place in March for the upcoming academic year. Detailed advising and registration information is posted on the Student Affairs website: [www.mcgill.ca/edu-sao/current/advising](http://www.mcgill.ca/edu-sao/current/advising). Students entering their graduating year are encouraged to meet with their adviser during this Advising period.

A list of courses for Freshman (Year 0) students is available as part of the advising material for each program at [www.mcgill.ca/edu-sao/new/advising](http://www.mcgill.ca/edu-sao/new/advising).

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### 7.2 Code of Professional Conduct (Faculty Regulations for Undergraduate Programs)

Faculty of Education programs have a session on content and professional conduct for all students.

Youth Protection), and to meet the expectations of schools, boards, and other host institutions receiving them for field placements. This applies to all aspects of professional conduct, including b

wish to exceed the specified minimum number of credits required for their degree must also seek permission of the Executive Director, Student Affairs. If permission is granted, credits over the limit will be flagged for no credit and the grades will not count in the CGPA.

Permission for exceeding the time and/or credit limits will normally be granted only for valid academic reasons, such as change of program or approved part-time status. If permission is granted, students will receive credit only for required and complementary courses necessary to complete their program requirements.

### **7.6.3 Course Requirements**

All required and complementary courses used to fulfil program requirements must be completed with a grade of C or better. Students who fail to obtain a satisfactory grade in a required course must either pass the supplemental examination if available, or repeat the course. If the failed course is a complementary course required by the program, a student may choose to replace it with another complementary course. If a student repeats a required course in which a D was received, credit will only be given once. A failure (F, J, KF, WF) in any level of Field Experience places a student in Unsatisfactory Standing, requiring withdrawal from the program. Further details on requirements for Field Experience are listed in [section 8: Student Teaching/Field Experience](#).

#### **Courses**

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## 7.7 Registration

All students register by Minerva, McGill's web-based registration system. For detailed information about registration, refer to *Progr*

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## **7.10 Incomplete Grades**

An instructor who believes that there is justification for a student to delay submitting term work may extend the deadline until after the end of the course. In this case, the instructor will submit a grade of "K" (Incomplete), indicating the date by which the work is to be completed. The maximum extensions for the submission of grades to the Student Af



**Interim Standing decisions are mentioned below only if the rules for them differ from those for regular Standing decisions.** Students who do not receive a Pass grade for a Fall term EDFE (Field Experience course) are placed in Unsatisfactory Standing. Permission may be granted to allow them to continue taking courses during the Winter term only.

### 7.12.1 Satisfactory/Interim Satisfactory Standing

Students in Interim Satisfactory or Satisfactory Standing:

- may continue in their program;
- have a CGPA of 2.00 or greater.

### 7.12.2 Probationary/Interim Probationary Standing

#### 7.12.2.1 Interim Probationary Standing at the end of the Fall term

Students in Interim Probationary Standing at the end of the Fall term:

- may continue in their program;
- should evaluate their course load and reduce it;
- should consult with their program adviser before the withdrawal deadlines;
- are permitted to proceed with the next scheduled Field Experience course, i.e., Winter or Spring, for First- or Second-Year Field Experiences only.

#### 7.12.2.2 Probationary Standing at the end of the Winter term

Students in Probationary Standing at the end of the Winter term:

- may continue in their program;
- must carry a reduced load (maximum of 12 credits per term);
- are not permitted to take student teaching/Field Experience courses of any level during the next academic year;
- must raise their TGPA and CGPA to return to Satisfactory;
- should see their departmental adviser to discuss their course selection.

#### 7.12.2.3 Students will be placed in Probationary Standing

- if their CGPA falls between 1.50 and 1.99, and if they were previously in Satisfactory Standing;
- if they receive a grade of D for a Field Experience course of any level and were previously in Satisfactory Standing;
- if their CGPA falls between 1.50 and 1.99 and their TGPA in Fall or Winter is 2.50 or higher, and if they were previously in Probationary or Interim Unsatisfactory Standing;
- if their CGPA is between 1.50 and 1.99 and their TGPA is 2.50 or higher, they were previously in Unsatisfactory Readmitted Standing, and have satisfied the relevant conditions specified in their letter of readmission.

### 7.12.3 Unsatisfactory/Interim Unsatisfactory Standing

#### 7.12.3.1 Interim Unsatisfactory standing at the end of the Fall term

Students in Interim Unsatisfactory standing at the end of the Fall term:

- may continue in their program;
- should evaluate their course load and reduce it as appropriate;
- should consult a departmental adviser, before the withdrawal deadlines, about their course selection for the Winter term;
- will not be permitted to proceed with the next normally scheduled Field Experience.

#### 7.12.3.2 Unsatisfactory Standing at the end of the Winter term

Students in Unsatisfactory Standing at the end of the Winter term:

- have failed to meet the minimum standards set by the Faculty;
- may not continue in their program.

### **7.12.3.3 Readmitted Unsatisfactory Standing**

Students who were previously in Unsatisfactory Standing and who were readmitted to the Faculty by the Executive Director, Student Af



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## 8.2 Registration

### 8.2.1 Newly Admitted Students

Newly admitted students:

- in B.Ed. K/Elementary, B.Ed. TESL, B.Ed. Secondary programs must be registered for Field Experience 1 by the end of August (see [www.mcgill.ca/importantdates](http://www.mcgill.ca/importantdates) for deadline);
- in B.Ed. Secondary Science and Math programs should consult an adviser during the August advising sessions prior to registering for Field Experience courses; Field Experience 1 is offered in the Summer term for these B.Ed Secondary subjects only;
- in B.Ed. Music, and B.Ed. Physical and Health Education programs must register in February for Field Experience 1 (Summer term);
- who are registered for a Field Experience will receive instructions for accessing the online Student Teaching Placement Form at their official @mail.mcgill.ca email address. Forms must be submitted by the date indicated in the email.

### 8.2.2 Returning Students

Returning students:

- must register for Field Experience 3 on Minerva by mid-April of the preceding academic year (see [www.mcgill.ca/importantdates](http://www.mcgill.ca/importantdates) for deadline). Field Experience 3 begins in late August before the start of lectures. (See Minerva or OST website for details.)
- must register for Field Experience 4 on Minerva by the beginning of October (see [www.mcgill.ca/importantdates](http://www.mcgill.ca/importantdates) for deadline);
- who are registered for a Field Experience will receive instructions for accessing the online Student Teaching Placement Form at their official @mail.mcgill.ca email address. Forms must be submitted by the date indicated in the email;
- must be in Satisfactory Standing and have satisfied all prerequisite and corequisite course requirements (refer to [www.mcgill.ca/edu-sao/current](http://www.mcgill.ca/edu-sao/current)). B.Ed. Secondary program students must have successfully completed 24 credits in their official subject area prior to Field Experience 3. All B.Ed. students must successfully pass the English Exam for Teacher Certification (EETC; EDEC 215) prior to Field Experience 3. Minerva does not necessarily prevent students from registering for courses that they should not take. It is the student's responsibility to be aware of prerequisites, corequisites, restrictions, and Faculty regulations that apply to the courses in which they register. Students should consult an academic adviser for assistance. Students missing anyTf1 0 0 1 67.52 625.318 Tm(•)Tj4

Student teachers are permitted to be absent for religious holy days, as outlined in McGill's Policy for the Accommodation of Religious Holy Days; see [www.mcgill.ca/importantdates/holy-days-0](http://www.mcgill.ca/importantdates/holy-days-0). Students must notify the OST, cooperating teacher, and field supervisor before the Field Experience begins if possible, or at least two weeks before the planned absence. The missed days must be made up, usually at the end of the Field Experience.

Absences related to McGill Intercollegiate Sport events are evaluated by the Director of the OST on a case-by-case basis. Student teachers must submit a signed copy of the *Intercollegiate Sport Event Accommodation form* to the OST at least two weeks in advance of each conflict.

Absences for any other reason, including but not limited to: marriage, family parties, vacation, university extracurricular activities, employment, or conflicting courses, are not permitted during Field Experience under any circumstances. Students should consult an academic adviser if they need to rearrange their course schedule.

### 8.3.3 Judicial Record Verification

See *section 7: Faculty Regulations for Undergraduate Programs > section 7.5: Judicial Record Verification for Students in the Bachelor of Education Programs* for information on the requirement to obtain this security clearance. Additional information can be found on the OST website.

### 8.3.4 Work Permit for International Students

International students (students who are not Permanent Residents or citizens of Canada) must apply for an internship/co-op work permit issued by Citizenship and Immigration Canada as a requirement for their mandatory Field Experiences. This is not the same as an off-campus work permit. The internship/co-op work permit is free of charge, but takes time to obtain and may require a medical exam. Detailed instructions are available on the OST website. For assistance with the application students should contact International Student Services, [www.mcgill.ca/internationalstudents](http://www.mcgill.ca/internationalstudents). Students must submit a copy of their valid permit to the OST before the Field Experience starts.

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## 8.4 Grading and Credit

Field Experiences are graded "Pass/Fail." Students must submit all completed evaluation forms to the OST immediately following their Field Experience in order to receive a grade.

Where a student is experiencing serious difficulties in a Field Experience but has demonstrated some potential to successfully reach the required standard, the student may be granted a "D" grade. In this case, the Director of the OST has the authority to grant special permission for a student to repeat a Field Experience during the next term in which the course is offered. This special permission will be granted once only in a student's program. Students receiving a "D" grade are also required to repeat the corequisite seminar or other corequisite course as specified by the Director. The original grade for the corequisite seminar or course will be excluded from the GPA and credits; only the second grade will be retained.

Students must receive a Pass grade in order to proceed in the B.Ed. program. Failure (F, J, KF, WF) in any Field Experience places a student in Unsatisfactory Standing, requiring withdrawal from the Teacher Education Program. Students who fail in a Fall term Field Experience may be allowed to continue taking courses in the program to enable transfer to another faculty. Refer to [www.mcgill.ca/edu-sao/current/academicstanding](http://www.mcgill.ca/edu-sao/current/academicstanding).

A student may appeal a failing grade or termination of a Field Experience by making a formal application to the Executive Director, Student Affairs.

### 8.4.1 Termination of Field Experience

At any time, students may be removed from their Field Experience placement at the request of the host school administrator and cooperating teacher, or at the request of the Director of Student Teaching. Students who are removed from a Field Experience placement will be informed of the reason for the termination and will meet with the Director.

Circumstances that could lead to termination include, but are not limited to:

- Prerequisite courses not successfully completed.
- Exceeding the number of permissible unexcused absences for corequisite courses (consult the syllabus for each course).
- Failure to pass a judicial record check, if required by the school or school board where the student is placed.
- Unprofessional behaviour; behaviour that contravenes the Code of Ethics for Student Teachers.
- Failure to make the improvements outlined on a Notification of Concern by the date indicated.

The final outcome for a Field Experience that is terminated will be decided by the Director of Student Teaching.

Possible outcomes are:

- Reassignment during the same term, subject to availability of placements.
- "W" – Withdrawal (normally without refund).
- "D" – Student will be permitted to register for the Field Experience again during the next regularly scheduled term.
- "F, J, KF, WF" – Failure in any Field Experience places the student in Unsatisfactory Standing, requiring withdrawal from the B.Ed. program. Refer to [www.mcgill.ca/edu-sao/current/academicstanding](http://www.mcgill.ca/edu-sao/current/academicstanding).

If a student chooses to end his or her Field Experience, the Director of Student T

### **8.5.3 Ethics and Law**

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Montreal, Quebec H3A 1Y2

Telephone: 514-398-4242

Fax: 514-398-6968

Website: [www.mcgill.ca/edu-ecp](http://www.mcgill.ca/edu-ecp)

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## 9.2 About the Department of Educational and Counselling Psychology

Educational Psychology encompasses a) the theoretical and applied study of learning, cognition, and instruction in a variety of educational settings across ages and domains; b) instructional technology and computers as cognitive tools in learning; c) cognitive and social processes in learning; d) evaluation and enhancement of learning and teaching; e) methods for fostering inclusive education; f) relationships of phenomena related to teaching, learning, and assessment in human development; and g) the impact of family and community on children's learning and development.

At the undergraduate level, the Department of Educational and Counselling Psychology is responsible for the B.A.; see *Programs, Courses and University Regulations > Faculties & Schools > Faculty of Arts > Undergraduate > Academic Programs > Educational Psychology* for more information and for a variety of undergraduate courses in the areas of learning, cognition and development, inclusive education, gifted education, educational media and computers, and educational measurement and evaluation.

In professional development, the Department offers diploma or certificate programs in Human Relations and Family Life Education, Inclusive Education, and First Nations and Inuit Student Personnel Services. For more information, please consult our website, [www.mcgill.ca/edu-ecp/programs/prodev](http://www.mcgill.ca/edu-ecp/programs/prodev), or contact the Undergraduate Program Coordinator in Educational and Counselling Psychology:

Dean Thomson  
Undergraduate Program Coordinator  
Telephone: 514-398-4248  
Email: [dean.thomson@mcgill.ca](mailto:dean.thomson@mcgill.ca)

At the graduate level, the Department of Educational and Counselling Psychology offers Master's degrees (M.A.) in Counselling Psychology, with major concentrations in Project (Research-based) or Professional/Internship (Practitioner-based) and in Educational Psychology with streams in Health Professions Education, Human Development, Learning Sciences, and School/Applied Child Psychology. Also offered are Master's of Education degrees (M.Ed.) in Educational Psychology with streams in General Educational Psychology, Inclusive Education, and Learning Sciences. Students can also obtain doctoral degrees (Ph.D.) in Counselling Psychology, School/Applied Child Psychology, and Educational Psychology with streams in Human Development or Learning Sciences. The Department also offers a Postdoctoral Degree Graduate Diploma in School/Applied Child Psychology and a Graduate Certificate in Counselling Applied to Teaching. For further information, consult the Graduate and Postdoctoral Studies *Programs, Courses and University Regulations* publication available at [www.mcgill.ca/study](http://www.mcgill.ca/study).

Special services offered by the Department include the School and Counselling Psychology Clinic and the International Centre for Youth Gambling and High-Risk Behaviour.

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## 9.3 Department of Educational and Counselling Psychology Faculty

### Emeritus Professors

Mark W. Aulls; B.S.(Ball St.), M.Ed.(Ind.), Ph.D.(Georgia)  
Janet G. Donald; B.A., M.A.(W. Ont.), Ph.D.(Tor.) (*joint appt. with Teaching and Learning Services*)  
Florent R. Dumont; A.B.(Col.), M.S.(S. Conn. St.), Ed.D.(Mass.)  
Carl H. Frederiksen; B.A.(Harv.), M.A., Ph.D.(Ill.)  
Lynn McAlpine; B.A.(McG.), M.A.(C'dia.), Ph.D.(Tor.)  
Bruce M. Shore; B.Sc., M.A.(McG.), Ph.D.(Calg.)

### Professors

Roger Azevedo; B.A., M.A.(C'dia), Ph.D.(McG.), (*Canada Research Chair, Tier 1*)  
Robert J. Bracewell; B.Sc., M.A.(McM.), Ph.D.(Tor.)  
Jacob A. Burack; B.A.(Col.), M.S., M.Phil., Ph.D.(Yale)  
Jeffrey L. Derevensky; B.A.(C. W. Post), M.A., Ph.D.(McG.)  
Nancy L. Heath; B.A.(McG.), M.Ed.(Ott.), Ph.D.(Tor.) (*James McGill Professor*)  
Susanne P. Lajoie; B.A., M.A.(McG.), Ph.D.(Stan.), (*Canada Research Chair, Tier 1*)  
Alenoush Saroyan; B.A.(Pahlavi), M.Ed.(Loyola-Ill.), Ph.D.(McG.)



**Professors**

Cynthia B. Weston; B.A.(G'town), M.L.S.(SUNY), D.Ed.(Wash.) (*joint appt. with Teaching and Learning Services*)

**Associate Professors**

Alain Breuleux; B.Sc., M.Sc., Ph.D.(Montr.)

Martin Drapeau; B.A.(Montr.), B.A.Ps.(UQTR), M.P.(Laval), Ph.D.(Montr.)

Marilyn Fitzpatrick; B.A.(Tor.), M.Ed., Ph.D.(McG.)

Michael L. Hoover; B.S.(Tulane), M.A., M.Phil., Ph.D.(Col.)

Krista Muis; B.A.(Wat.), M.A.(Vic., BC), Ph.D.(S. Fraser)

Robert Savage; B.A.(Oxf.), M.Sc.(Camb.), M.Sc., Ph.D.(Lond.) (*William Dawson Scholar*)

Steven R. Shaw; B.S., M.Ed., Ed.S., Ph.D.(Flor.)

Ada L. Sinacore; B.A.(Montclair St.), M.A., M.Ed., Ph.D.(Col.)

Ingrid E. Sladeczek; B.A., M.S., Ph.D.(Ariz.), A.A.(Md.)

Lisa Spanierman; B.Sc.(Flor.), M.A., Ed.M.(Col.), Ph.D.(Missouri)

Ronald Stringer; B.Sc., M.A., Ph.D.(Tor.)

Victoria Talwar; M.A.(St. And.), M.A., Ph.D.(Qu.) (*Canada Research Chair, Tier 2*)

**Assistant Professors**

Armando Bertone; B.A., M.A.(C' dia), M.Ps., Ph.D.(Montr.)

Tara Flanagan; B.A.(Winn.), M.A., Ph.D.(McG.)

Nathan Hall; B.A., M.A., Ph.D.(Manit.)

Annett Körner; M.A., Ph.D.(Leipzig)

Jessica Ruglis; B.S.(Albany), M.A.T.(Union Coll.), M.P.H.(Hunter), Ph.D.(CUNY)

Nathan Smith; M.Sc., Ph.D.(VCU)

**Faculty Lecturer**

Jack de Stefano; B.A.(Loyola), M.Ed., Ed.D.(McG.)

**Associate Member**

Reut Gruber; B.A., M.A., Ph.D.(Tel Aviv)

**Associate Professor (Non-Tenure Track)**

Marcia Delcourt; B.S.(Bloomsburg St.), M.A., Ph.D.(Conn.) (*part-time*)

**Adjunct Professors**

Dermot Bowler

Karen Cohen-Gazith

Yves de Roten

Thomas Goetz

Judith Gradinger

Calvin Kalman

Katherine Moxness

Judith Norton

Rhoda Root

Erica Shoshana Ross

Anastassios Stalikas

Jessica Toste

**Adjunct Professors**

Helen-Maria Vasiliadis

Harold Wynne

**Research Associates**

Rina Gupta

Jasvinder Magon

Diana Tabatabai

Laura Winer

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## 10 Department of Integrated Studies in Education

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### 10.1 Location

**Faculty of Education**

3700 McTavish Street, Room 244

Montreal, Quebec H3A 1Y2

Website: [www.mcgill.ca/dise](http://www.mcgill.ca/dise)

***Undergraduate Programs:***

Telephone: 514-398-4527

Fax: 514-398-4529

***Graduate and Certificate Programs:***

Telephone: 514-398-7149

Fax: 514-398-4529

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### 10.2 About the Department of Integrated Studies in Education

The Department of Integrated Studies in Education, created in September 2001, incorporates the programs and staff previously associated with the Departments of Culture and Values in Education, Educational Studies, Second Language Education, and First Nations and Inuit Education.

The Department offers four-year programs for CEGEP graduates and five-year programs for out-of-province students leading to a B.Ed. degree.

For B.Ed. program overviews, see [www.mcgill.ca/dise/progs](http://www.mcgill.ca/dise/progs).

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### 10.3 Department of Integrated Studies in Education Faculty

**Chair**

Ralf St. Clair

**Director of Undergraduate Programs**

Caroline Riches

**Director of B.Ed. Kindergarten and Elementary Program**

Beverly Baker





**Bachelor of Education (Kindergarten and Elementar**

The Freshman year is the time to take introductory-level courses in English, as well as to explore areas that are not normally taken as "teachable" subject areas within B.Ed. programs (e.g., Sociology, Psychology, Political Science, etc.). Students should also investigate the possibility of taking one of the First Y

EDEC 233	(3)	First Nations and Inuit Education
EDEC 248	(3)	Multicultural Education
EDEC 249	(3)	Global Education and Social Justice

### **Philosophy of Education**

3 credits from:

EDEC 260	(3)	Philosophical Foundations
EDEC 261	(3)	Philosophy of Catholic Education

### **Secondary Teaching Methods - English**

6 credits:

EDES 361	(3)	Teaching Secondary English 1
EDES 461	(3)	Teaching Secondary English 2

### **Secondary English Subject Area (54 credits)**

Note: Students selecting 18 credits of English as their second "teachable" subject will take EDES 361 Teaching Secondary English 1 (3 credits) to count as an elective in their program.

#### **Option 1**

54 credits distributed as follows:

#### **Required Course (3 credits)**

EDES 366	(3)	Literature for Young Adults
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#### **Complementary Language/Linguistics courses (6 credits)**

CEAP 250*	(3)	Research Essay & Rhetoric
EDEC 203*	(3)	Communication in Education L2 Learning: Classroom Settings

**Option 2 (54 credits)**

54 credits distributed as follows:

**Required Course (3 credits)**

Literature for Young 3 credim663.062 T6ee for



LING 201	(3)	Introduction to Linguistics
LING 355	(3)	Language Acquisition 1

\* Note: students may select either EDEC 203 or CEAP 250

**Complementary Courses (12 credits)**

12 credits selected from the English Department undergraduate complementary course list (<http://www.mcgill.ca/english/undergrad/2013-14-complementary-courses>). A minimum of 6 credits at the 300 level or higher

**Literature (6 credits)**

**Cultural Studies (3 credits)**

MATH 140	(3)	Calculus 1
MATH 141	(4)	Calculus 2
RELG 204	(3)	Judaism, Christianity and Islam
RELG 207	(3)	The Study of World Religions 1

**Required Courses (54 credits)**

EDEC 201	(1)	First Year Professional Seminar
EDEC 215	(0)	English Exam for Teacher Certification
EDEC 247	(3)	Policy Issues in Quebec Education
EDEC 254	(1)	Second Professional Seminar (Secondary)
EDEC 262	(3)	Media, Technology and Education
EDEC 351	(2)	Third Professional Seminar (Secondary)
EDEC 404	(3)	Fourth Year Professional Seminar (Sec)
EDES 350	(3)	Classroom Practices (Secondary)
EDES 353	(3)	Teaching Secondary Mathematics 1
EDES 453	(3)	Teaching Secondary Mathematics 2
EDFE 200	(2)	First Field Experience (K/Elem & Secondary)
EDFE 254	(3)	Second Field Experience (Secondary)
EDFE 351	(8)	Third Field Experience (Secondary)
EDFE 451	(7)	Fourth Field Experience (Secondary)
EDPE 300	(3)	Educational Psychology
EDPE 304	(3)	Measurement and Evaluation
EDPI 309	(3)	Diverse Learners
EDPI 341	(3)	Instruction in Inclusive Schools

**Complementary Courses (6 credits)**

6 credits selected as described below.

**Multicultural Education**

3 credits from:

EDEC 233	(3)	First Nations and Inuit Education
EDEC 248	(3)	Multicultural Education
EDEC 249	(3)	Global Education and Social Justice

**Philosophy of Education**

3 credits from:

EDEC 260	(3)	Philosophical Foundations
EDEC 261	(3)	Philosophy of Catholic Education

**Secondary Mathematics Subject Area (54 credits)**

Secondary Mathematics students complete 54 credits selected in consultation with the Program Adviser in one of two options.

Option 1

27 credits from the list of "Required Mathematics Courses" and  
27 credits from the list of "Complementary Mathematics Courses"

Or

Option 2:

27 credits from the list of "Required Mathematics Courses" and  
9 credits from the list of "Complementary Mathematics Courses"

And

18 credits of designated courses in another "teachable" subject area (English, Social Sciences, or Science and Technology - see an adviser for courses).

**Required Mathematics Courses (27 credits)**

MATH 222	(3)	Calculus 3
MATH 223	(3)	Linear Algebra
MATH 235	(3)	Algebra 1
MATH 242	(3)	Analysis 1
MATH 315	(3)	Ordinary Differential Equations
MATH 323	(3)	Probability
MATH 324	(3)	Statistics
MATH 338	(3)	History and Philosophy of Mathematics
MATH 348	(3)	Topics in Geometry

**Complementary Mathematics Courses (27 credits)**

27 credits from the list below for Secondary Mathematics Option 1 students or

## **"Teachable" Subject Area**

0-18 credits

18 credits of designated courses for Secondary Mathematics Option 2 students (English, Social Sciences, or Science and Technology - see an adviser for course selection)

## **Electives (6 credits)**

Note: Students who have chosen to do 36 credits in one teachable subject and 18 credits in another will use 3 credits of electives to take the Secondary Teaching Methods course needed for their second teachable subject.

**Revision, June 2013. End of revision.**

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## **10.7 Bachelor of Education (B.Ed.) - Secondary Social Sciences - History and Citizenship, Ethics and Religious Culture (120 credits)**

**Revision, June 2013. Start of revision.**

The Bachelor of Education (B.Ed.) - Secondary Social Sciences - History and Citizenship, Ethics and Religious Culture program requires 120 credits and leads to teacher certification. Students who have not completed Quebec CEGEP, French Baccalaureate, International Baccalaureate, or at least one year of university studies prior to commencing the B.Ed. must also complete a minimum of 30 credits of Freshman courses (in addition to the 120 credits for the program) for a total of 150 credits.

The aim of the B.Ed. Secondary Education Program is to prepare strong beginning teachers for the secondary school level. This integrated program consists of courses in Education (including field experiences) and courses in the subject area of the teaching specialization. Students also take 6 credits of free electives. For all teacher education programs, course sequencing is highly structured. For this reason, the advising information in this eCalendar section must be used in conjunction with the summary companion document (Program Overview) found at <http://www.mcgill.ca/dise/progs/secsocsci>.

The Secondary Social Sciences - History and Citizenship, Ethics and Religious Culture program provides students with the learning opportunities needed to become proficient Social Science teachers with a strong knowledge base in the associated disciplinary areas.

Please note that graduates of teacher education programs are recommended by the University for Quebec certification to the Quebec Ministère de l'Éducation, du Loisir et du Sport (MELS). For more information about teacher certification in Quebec, please refer to the Faculty of Education section under "Overview of Faculty Programs," "Undergraduate Education Programs," and "Quebec Teacher Certification."

### **Freshman Program**

Students normally complete 30 credits in their Freshman (U0) year.

The Freshman year is the time to take introductory-level courses in a teachable subject area, as well as to explore areas that are not normally taken within B.Ed. programs (e.g., Sociology, Psychology, Political Science, etc.). Students should also investigate the possibility of taking one of the First Year Seminar courses offered by the Faculty of Arts or the Faculty of Science.

In addition, in consultation with the Program Adviser

HIST 215	(3)	Modern European History
RELG 204	(3)	Judaism, Christianity and Islam
RELG 207	(3)	The Study of World Religions 1
RELG 252	(3)	Hinduism and Buddhism

**Required Courses (54 credits)**

EDEC 201	(1)	First Year Professional Seminar
EDEC 215	(0)	English Exam for Teacher Certification
EDEC 247	(3)	Policy Issues in Quebec Education
EDEC 254	(1)	Second Professional Seminar (Secondary)
EDEC 262	(3)	Media, Technology and Education
EDEC 351	(2)	Third Professional Seminar (Secondary)
EDEC 404	(3)	Fourth Year Professional Seminar (Sec)
EDER 372	(3)	Ethics and Religious Culture (Secondary)
EDES 334	(3)	Teaching Secondary Social Studies 1
EDES 350	(3)	Classroom Practices (Secondary)
EDFE 200	(2)	First Field Experience (K/Elem & Secondary)
EDFE 254	(3)	Second Field Experience (Secondary)
EDFE 351	(8)	Third Field Experience (Secondary)
EDFE 451	(7)	Fourth Field Experience (Secondary)
EDPE 300	(3)	Educational Psychology
EDPE 304	(3)	Measurement and Evaluation
EDPI 309	(3)	Diverse Learners
EDPI 341	(3)	Instruction in Inclusive Schools

**Complementary Courses (6 credits)**

6 credits selected as described below.

**Multicultural Education**

3 credits from:

EDEC 233	(3)	First Nations and Inuit Education
EDEC 248	(3)	Multicultural Education
EDEC 249	(3)	Global Education and Social Justice

**Philosophy of Education**

3 credits from:

EDEC 260	(3)	Philosophical Foundations
EDEC 261	(3)	Philosophy of Catholic Education

**Secondary Social Sciences - History & Citizenship, Ethics & Religious Culture Subject Area (54 credits)**

Secondary Social Sciences - History and Citizenship, Ethics and Religious Culture students complete 54 credits selected in consultation with the Program Adviser with the following specifications:



POLI 362	(3)	Political Theory and International Relations
POLI 423	(3)	Politics of Ethno-Nationalism
POLI 435	(3)	Identity and Inequality
POLI 442	(3)	International Relations of Ethnic Conflict
POLI 450	(3)	Peacebuilding
POLI 474	(3)	Inequality and Development

#### Ethics and Religious Culture

18 credits as specified below.

6 credits from:

EDER 309*	(3)	The Religious Quest
RELG 204*	(3)	Judaism, Christianity and Islam
RELG 207	(3)	The Study of World Religions 1
RELG 252	(3)	Hinduism and Buddhism

\* Note: Either EDER 309 or RELG 204 may be selected but not both.

6 credits from:

EDER 209	(3)	Search for Authenticity
EDER 395	(3)	Moral Values and Human Action
EDER 461	(3)	Society and Change
EDER 473	(3)	Living with Insight
EDER 494	(3)	Ethics in Practice
PHIL 230	(3)	Introduction to Moral Philosophy 1
PHIL 237	(3)	Contemporary Moral Issues

6 credits from:

CATH 200	(3)	Introduction to Catholicism
EDER 252	(3)	Understanding and Teaching Jewish Life
EDER 319	(3)	Teaching the Holocaust
EDER 394	(3)	Philosophy of God
RELG 270	(3)	Religious Ethics and the Environment

#### Electives (6 credits)

6 credits

**Revision, June 2013. End of revision.**

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### 10.8 Bachelor of Education (B.Ed.) - Secondary Social Sciences - History and Citizenship, Geography (120 credits)

**Revision, June 2013. Start of revision.**

Bachelor of Education (B.Ed.) - Secondary Social Sciences - History and Citizenship, Geography program requires 120 credits and leads to teacher certification. Students who have not completed Quebec CEGEP, French Baccalaureate, International Baccalaureate, or at least one year of university studies prior to

commencing the B.Ed. must also complete a minimum of 30 credits of Freshman courses (in addition to the 120 credits for the program) for a total of 150 credits.

The aim of the B.Ed. Secondary Education Program is to prepare strong beginning teachers for the secondary school level. This integrated program consists of courses in Education (including field e



EDES 334	(3)	Teaching Secondary Social Studies 1
EDES 350	(3)	Classroom Practices (Secondary)
EDFE 200	(2)	First Field Experience (K/Elem & Secondary)
EDFE 254	(3)	Second Field Experience (Secondary)
EDFE 351	(8)	Third Field Experience (Secondary)
EDFE 451	(7)	Fourth Field Experience (Secondary)
EDPE 300	(3)	Educational Psychology
EDPE 304	(3)	Measurement and Evaluation
EDPI 309	(3)	Diverse Learners
EDPI 341	(3)	Instruction in Inclusive Schools

### **Complementary Courses (6 credits)**

6 credits selected as described below:

#### **Multicultural Education**

3 credits from:

EDEC 233	(3)	First Nations and Inuit Education
EDEC 248	(3)	Multicultural Education
EDEC 249	(3)	Global Education and Social Justice

#### **Philosophy of Education**

3 credits from:

EDEC 260	(3)	Philosophical Foundations
EDEC 261	(3)	Philosophy of Catholic Education

### **Secondary Social Sciences - History and Citizenship, Geography Subject Area (54 credits)**

Secondary Social Sciences - History and Citizenship, Geography students complete 54 credits selected in consultation with the Program Adviser with the following specifications:

#### **Required Courses**

History

6 credits selected from: nada to l 067ucation

9 credits of history courses on social history, gender history, identity, culture, religion and values, political life and institutions, conflict, wealth and poverty, science, and health

(Students may consult the course lists for History programs offered by the Faculty of Arts for guidance on course choices.)

6-12 credits selected from the following list (students must select a minimum of 3 credits ECON and a minimum of 3 credits POLI):

ANTH 338	(3)	Native Peoples of North America
CANS 200	(3)	Introduction to the Study of Canada
ECON 199	(3)	FYS: Aspects of Globalization

GEOG 217	(3)	Cities in the Modern World
GEOG 272	(3)	Earth's Changing Surface
GEOG 301	(3)	Geography of Nunavut
GEOG 309	(3)	Geography of Canada
GEOG 311	(3)	Economic Geography
GEOG 331	(3)	Urban Social Geography

Note: In consultation with the Program Adviser, students may choose their Geography courses from those that comprise the B.A. Minor Concentration Geography program.

### Electives (6 credits)

Revision, June 2013. End of revision.

## 10.9 Bachelor of Education (B.Ed.) - Secondary Science and Technology (120 credits)

Revision, June 2013. Start of revision.

The Bachelor of Education (B.Ed.) - Secondary Science and Technology program requires 120 credits and leads to teacher certification. Students who have not completed Quebec CEGEP, French Baccalaureate, International Baccalaureate, or at least one year of university studies prior to commencing the B.Ed. must also complete a minimum of 30 credits of Freshman courses (in addition to the 120 credits for the program) for a total of 150 credits.

The aim of the B.Ed. Secondary Education program is to prepare strong beginning teachers for the secondary school level. This integrated program consists of courses in Education (including field experiences) and courses in the subject area of the teaching specialization. Students also take 6 credits of free electives. For all teacher education programs, course sequencing is highly structured. For this reason, the advising information in this eCalendar section must be used in conjunction with the summary companion document (Program Overview) found at <http://www.mcgill.ca/dise/progs/secscitech>.

The Secondary Science and Technology program provides students with the subject matter expertise in the Living World, Earth and Space, the Material World, and the Technological World needed to teach the secondary science curriculum in Quebec schools.

Please note that graduates of teacher education programs are recommended by the University for Quebec certification to the Quebec Ministère de l'Éducation, du Loisir et du Sport (MELS). For more information about teacher certification in Quebec, please refer to the Faculty of Education section under "Overview of Faculty Programs," "Undergraduate Education Programs," and "Quebec Teacher Certification."

Note: Students entering this program from CEGEP or with Advanced Standing should have completed two biology courses, two chemistry courses, two math courses and two physics courses at the CEGEP level. Students entering from CEGEP without having completed these prerequisites (or their equivalents) will be required to make up any deficiencies in these courses over and above the degree requirements.

### Freshman Program - Basic Sciences

Freshmen in the Science and Technology program must complete the 29 to 30 credits of Basic Science courses listed below in their first year of studies.

Fall term: BIOL 111, CHEM 110, MATH 139 or MATH 140 or MATH 150, PHYS 101 or PHYS 131

Winter term: BIOL 112, CHEM 120, MATH 141 or MATH 151, PHYS 102 or PHYS 142

Students should consult a program adviser for guidance on which Fall and Winter term Math and Physics courses should be taken. Course choices depend on a student's background in science and plans for upper-level Physics courses.

BIOL 111	(3)	Principles: Organismal Biology
BIOL 112	(3)	Cell and Molecular Biology
CHEM 110	(4)	General Chemistry 1
CHEM 120	(4)	General Chemistry 2
MATH 139	(4)	Calculus 1 with Precalculus
MATH 140	(3)	Calculus 1
MATH 141	(4)	Calculus 2
MATH 150	(4)	Calculus A
MATH 151	(4)	Calculus B
		Introductory Ph

PHYS 142 (4) Electromagnetism and Optics

### Freshman Program - Complementary

For Freshman students with Advanced Standing in one or more of the basic sciences, the Faculty also recommends some of the courses listed below. French Second Language (FRSL) courses require a placement test to determine the course level.

CEAP 250	(3)	Research Essay & Rhetoric
EDEM 220	(3)	Contemporary Issues in Education
FRSL 101	(3)	Beginners French 1
FRSL 102	(3)	Beginners French 2
FRSL 207D1	(3)	Elementary French 01
FRSL 207D2	(3)	Elementary French 01
FRSL 211D1	(3)	Oral and Written French 1
FRSL 211D2	(3)	Oral and Written French 1

### Required Courses (54 credits)

EDEC 201	(1)	First Year Professional Seminar
EDEC 215	(0)	English Exam for Teacher Certification
EDEC 247	(3)	Policy Issues in Quebec Education
EDEC 254	(1)	Second Professional Seminar (Secondary)
EDEC 262	(3)	Media, Technology and Education
EDEC 351	(2)	Third Professional Seminar (Secondary)
EDEC 404	(3)	Fourth Year Professional Seminar (Sec)
EDES 335	(3)	Teaching Secondary Science 1
EDES 350	(3)	Classroom Practices (Secondary)
EDES 435	(3)	Teaching Secondary Science 2
EDFE 200	(2)	First Field Experience (K/Elem & Secondary)
EDFE 254	(3)	Second Field Experience (Secondary)
EDFE 351	(8)	Third Field Experience (Secondary)
EDFE 451	(7)	Fourth Field Experience (Secondary)
EDPE 300	(3)	Educational Psychology
EDPE 304	(3)	Measurement and Evaluation
EDPI 309	(3)	Diverse Learners
EDPI 341	(3)	Instruction in Inclusive Schools

### Complementary Courses (6 credits)

6 credits selected as described below:

#### Multicultural Education

3 credits from:

EDEC 233	(3)	First Nations and Inuit Education
EDEC 248	(3)	Multicultural Education
EDEC 249	(3)	Global Education and Social Justice

**Philosophy of Education**

3 credits from:

EDEC 260	(3)	Philosophical Foundations
EDEC 261	(3)	Philosophy of Catholic Education

**Secondary Science and Technology (54 credits)**

54 credits in designated science courses selected to provide subject matter expertise in the four areas of:

the Material World

- Earth and Space

- the Living World

- the Technological World

All students need to plan their course selections with attention to the prerequisites.

**Required Courses (12 credits)**

3 credits of Statistics:

MATH 203	(3)	Principles of Statistics 1
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3 credits of History of Science:

EDTL 520	(3)	Perspectives on Knowledge in Mathematics and Science
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3 credits of the Material World:

CHEM 281	(3)	Inorganic Chemistry 1
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3 credits of the Living World:

BIOL 206	(3)	Methods in Biology of Organisms
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**Core Complementary Courses (9 credits)**

The Living World

3 credits from:

BIOL 200*	(3)	Molecular Biology
BIOL 206	(3)	Methods in Biology of Organisms
LSCI 202*	(3)	Molecular Cell Biology

\* Students select either BIOL 200 or LSCI 202, but not both.

The Material World

2-3 credits from:

CHEM 203	(3)	Survey of Physical Chemistry
CHEM 223	(2)	Introductory Physical Chemistry 1

3-4 credits from:

CHEM 211	(3)	Organic Chemistry 1 Lectures
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Introductory Or

ATOC 214	(3)	Introduction: Physics of the Atmosphere
ATOC 215	(3)	Oceans, Weather and Climate
ATOC 219	(3)	Introduction to Atmospheric Chemistry
ATOC 309	(3)	Weather Radars and Satellites
ATOC 315	(3)	Thermodynamics and Convection
ENVR 202	(3)	The Evolving Earth
EPSC 201	(3)	Understanding Planet Earth
EPSC 203	(3)	Structural Geology
EPSC 210	(3)	Introductory Mineralogy
EPSC 212	(3)	Introductory Petrology
EPSC 220	(3)	Principles of Geochemistry
EPSC 221	(3)	General Geology
EPSC 225	(1)	Properties of Minerals

CHEM 287*	(2)	Introductory Analytical Chemistry
CHEM 297*	(1)	Introductory Analytical Chemistry Laboratory
CHEM 302	(3)	Introductory Organic Chemistry 3
CHEM 319	(3)	Chemistry of Energy, Storage and Utilization
CHEM 381	(3)	Inorganic Chemistry 2
CHEM 392	(3)	Integrated Inorganic/Organic Laboratory
MATH 222	(3)	Calculus 3
PHYS 224	(3)	Physics of Music
PHYS 230	(3)	Dynamics of Simple Systems



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**Concurrent Bachelor of Science (B.Sc.) and Bachelor of Education (B.Ed.) - Major Concentration Biology -**

Select the approved courses according to the instructions abo

**Required Courses**

54 credits

\* Note: The courses marked with an asterisk are counted toward both degrees. They will count as "electives" for the B.Sc. degree, although a grade of "C" or better is required.

The English Language Requirement (EDEC 215) must be taken in the Fall semester following the Freshman year.

EDEC 201	(1)	First Year Professional Seminar
EDEC 215	(0)	English Exam for Teacher Certification
EDEC 247*	(3)	Policy Issues in Quebec Education
EDEC 254	(1)	Second Professional Seminar (Secondary)
EDEC 262*	(3)	Media, Technology and Education
EDEC 351	(2)	Third Professional Seminar (Secondary)
EDEC 404	(3)	Fourth Year Professional Seminar (Sec)
EDES 335	(3)	Teaching Secondary Science 1
EDES 350	(3)	Classroom Practices (Secondary)
EDES 435	(3)	Teaching Secondary Science 2
EDFE 200	(2)	First Field Experience (K/Elem & Secondary)
EDFE 254	(3)	Second Field Experience (Secondary)
EDFE 351	(8)	Third Field Experience (Secondary)
EDFE 451	(7)	Fourth Field Experience (Secondary)
EDPE 300*	(3)	Educational Psychology
EDPE 304	(3)	Measurement and Evaluation
EDPI 309*	(3)	Diverse Learners
EDPI 341	(3)	Instruction in Inclusive Schools

**Complementary Courses**

6 credits selected as follows:

\* Note: The courses marked with an asterisk are counted toward both degrees. They will count as "electives" for the B.Sc. degree, although a grade of "C" or better is required.

3 credits, one of the three following courses:

EDEC 233*	(3)	First Nations and Inuit Education
EDEC 248*	(3)	Multicultural Education
EDEC 249*	(3)	Global Education and Social Justice

3 credits, one of the two following courses:

EDEC 260*	(3)	Philosophical Foundations
EDEC 261*	(3)	Philosophy of Catholic Education

**Major Concentration Biology - Cell/Molecular (36 credits)**

The Major Concentration Biology - Cell/Molecular is a planned sequence of courses designed to permit a degree of specialization in cell/molecular biology.

Advising Note: Freshman students should be aware that PHYS 101 and/or PHYS 102 are required for some of the courses in the major and minor concentrations in Biology.

### Required Courses

25 credits selected as follows:

BIOL 200	(3)	Molecular Biology
BIOL 201	(3)	Cell Biology and Metabolism
BIOL 202	(3)	Basic Genetics
BIOL 205	(3)	Biology of Organisms
BIOL 215	(3)	Introduction to Ecology and Evolution
BIOL 300	(3)	Molecular Biology of the Gene
BIOL 301	(4)	Cell and Molecular Laboratory
BIOL 303	(3)	Developmental Biology

### Complementary Courses

At least 11 credits selected from:

BIOL 306	(3)	Neural Basis of Behaviour
BIOL 313	(3)	Eukaryotic Cell Biology
BIOL 314	(3)	Molecular Biology of Oncogenes
BIOL 370	(3)	Human Genetics Applied
BIOL 373	(3)	Biometry
BIOL 413	(1)	Directed Reading
BIOL 568	(3)	Topics on the Human Genome
BIOL 575	(3)	Human Biochemical Genetics

or other appropriate course at the 300 level or higher with the permission of an adviser.

### Minor Chemistry (18 credits)

#### Required Courses

18 credits selected as follows:

\* Note: denotes courses with CEGEP equivalents.

Substitutions for these by more advanced courses may be made at the discretion of the Adviser.

CHEM 203	(3)	Survey of Physical Chemistry
CHEM 212*	(4)	Introductory Organic Chemistry 1
CHEM 222*	(4)	Introductory Organic Chemistry 2
CHEM 253	(1)	Introductory Physical Chemistry 1 Laboratory
CHEM 281	(3)	Inorganic Chemistry 1
CHEM 287	(2)	Introductory Analytical Chemistry
CHEM 297	(1)	Introductory Analytical Chemistry Laboratory

#### Additional Science Courses

15 credits selected as follows:

12 credits:

BIOL 210	(3)	Perspectives of Science
CHEM 381	(3)	Inorganic Chemistry 2

MATH 203 (3) Principles of Statistics 1

MATH 222 (3) Calculus 3

plus 3 credits, one of:

CHEM 180 (3) World of Chemistry: Environment

World of Chemistry: F

Option 1) 2 courses from MATH and 4 courses from BIOL, CHEM or PHYS;

or

Option 2) 3 courses from MATH and 3 courses from BIOL, CHEM or PHYS.

### Science Complementary

The seventh course is chosen from the list of Approved Freshman Science Courses.

Notes:

1. Students who have not studied all of Biology, Chemistry, and Physics at the grade 12 level or equivalent are strongly advised to include at least one course in the missing discipline in their Freshman Program.
2. Many students will complete more than seven courses from the Approved Freshman Science Courses list, particularly those who wish to leave several options open for their choice of major.
3. Students entering the Freshman Program must be aware of the department specific requirements when selecting their courses. Detailed advising information is available at [http://www.mcgill.ca/science/sousa/new\\_students/u0/bsc\\_freshman/specific/](http://www.mcgill.ca/science/sousa/new_students/u0/bsc_freshman/specific/).
4. The maximum number of courses per term, required, complementary, and elective, is five.

### List of Approved Freshman Science Courses

Select the approved courses according to the instructions above.

Note:

\* CHEM 115 (not open to students who are taking or have taken CHEM 110 or CHEM 120)

\* CHEM 120 (not open to students who have taken CHEM 115)

BIOL 111	(3)	Principles: Organismal Biology
BIOL 112	(3)	Cell and Molecular Biology
CHEM 110	(4)	General Chemistry 1
CHEM 115*	(4)	Accelerated General Chemistry: Giants in Science
CHEM 120*	(4)	General Chemistry 2
COMP 202	(3)	Foundations of Programming
ESYS 104	(3)	The Earth System
MATH 133	(3)	Linear Algebra and Geometry
PSYC 100	(3)	Introduction to Psychology

First calculus course, one of:

MATH 139	(4)	Calculus 1 with Precalculus
MATH 140	(3)	Calculus 1
MATH 150	(4)	Calculus A

Second calculus course, one of:

MATH 141	(4)	Calculus 2
MATH 151	(4)	Calculus B

First physics course, one of:

Introductory Physics - Mech2st calculus course, ontry: Giants in ScienceH 147.52 07631A.864 1mfimTm(op2 TTm(TH

PHYS 102	(4)	Introductory Physics - Electromagnetism
PHYS 142	(4)	Electromagnetism and Optics

### Electives

Students wishing to take elective courses may choose them from introductory courses offered by departments in the Faculties of Science or of Arts. A list of recommended courses is found at [http://www.mcgill.ca/science/sousa/new\\_students/u0/bsc\\_freshman/approved/](http://www.mcgill.ca/science/sousa/new_students/u0/bsc_freshman/approved/). Certain courses offered by other faculties may also be taken, but some restrictions apply.

Consult the SOUSA website at [http://www.mcgill.ca/science/sousa/continuing\\_students/bsc/outside/](http://www.mcgill.ca/science/sousa/continuing_students/bsc/outside/) for more information about taking courses from other faculties.

### Education Component (60 credits)

60 credits of Education Component, consisting of:

54 credits of required courses

6 credits of complementary courses

### Required Courses

54 credits

\* Note: The courses marked with an asterisk are counted toward both degrees. They will count as "electives" for the B.Sc. degree, although a grade of "C" or better is required.

The English Language Requirement (EDEC 215) must be taken in the Fall semester following the Freshman year.

EDEC 201	(1)	First Year Professional Seminar
EDEC 215	(0)	English Exam for Teacher Certification
EDEC 247*	(3)	Policy Issues in Quebec Education
EDEC 254	(1)	Second Professional Seminar (Secondary)
EDEC 262*	(3)	Media, Technology and Education
EDEC 351	(2)	Third Professional Seminar (Secondary)
EDEC 404	(3)	Fourth Year Professional Seminar (Sec)
EDES 335	(3)	Teaching Secondary Science 1
EDES 350	(3)	Classroom Practices (Secondary)
EDES 435	(3)	Teaching Secondary Science 2

First Field Experience (K/Elem & Secondary)Seco3FE23 Tm(EDES 350)Tj1 0 0 0 .80.949 400.563 Tm(First Field Ex(

EDEC 248*	(3)	Multicultural Education
EDEC 249*	(3)	Global Education and Social Justice

3 credits, one of the two following courses:

EDEC 260*	(3)	Philosophical Foundations
EDEC 261*	(3)	Philosophy of Catholic Education

### **Major Concentration Biology - Cell/Molecular (36 credits)**

The Major Concentration Biology - Cell/Molecular is a planned sequence of courses designed to permit a degree of specialization in cell/molecular biology.

Advising Note: Freshman students should be aware that PHYS 101 and/or PHYS 102 are required for some of the courses in the major and minor concentrations in Biology.

### **Required Courses\***

29 credits selected as follows:

\* Students who have already taken CHEM 212 or its equivalent will choose another appropriate complementary course, to be approved by the Adviser. Regardless of the substitution, students must take at least 36 credits in this program.

BIOL 200	(3)	Molecular Biology
BIOL 201	(3)	Cell Biology and Metabolism
BIOL 202	(3)	Basic Genetics
BIOL 205	(3)	Biology of Organisms
BIOL 215	(3)	Introduction to Ecology and Evolution
BIOL 300	(3)	Molecular Biology of the Gene
BIOL 301	(4)	Cell and Molecular Laboratory
BIOL 303	(3)	Developmental Biology
CHEM 212*	(4)	Introductory Organic Chemistry 1

### **Complementary Courses**

At least 7 credits selected from:

BIOL 306	(3)	Neural Basis of Behaviour
BIOL 313	(3)	Eukaryotic Cell Biology
BIOL 314	(3)	Molecular Biology of Oncogenes
BIOL 370	(3)	Human Genetics Applied
BIOL 373	(3)	Biometry
BIOL 413	(1)	Directed Reading
BIOL 568	(3)	Topics on the Human Genome
BIOL 575	(3)	Human Biochemical Genetics

or other appropriate course at the 300 level or higher with the permission of an adviser.

### **Minor Physics (18 credits)**

#### **Required Course**

3 credits

PHYS 257	(3)	Experimental Methods 1
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**Complementary Courses**

15 credits to be selected as follows:

One of:

PHYS 230	(3)	Dynamics of Simple Systems
PHYS 251	(3)	Honours Classical Mechanics 1

One of:

PHYS 232	(3)	Heat and Waves
PHYS 253	(3)	Thermal Physics

One of:

PHYS 241	(3)	Signal Processing
PHYS 258	(3)	Experimental Methods 2

One of:

PHYS 214	(3)	Introductory Astrophysics
PHYS 224	(3)	Physics of Music
PHYS 260	(3)	Modern Physics and Relativity
PHYS 271	(3)	Introduction to Quantum Physics

One of:

PHYS 340	(3)	Majors Electricity and Magnetism
PHYS 350	(3)	Honours Electricity and Magnetism

**Additional Science Courses (15 credits)**

BIOL 210	(3)	Perspectives of Science
MATH 203	(3)	Principles of Statistics 1
MATH 222	(3)	Calculus 3
MATH 223	(3)	Linear Algebra
MATH 314	(3)	Advanced Calculus

**Electives (6 credits)**

6 credits, of which at least 3 credits must be Science Electives.

The electives must be chosen in such a way that the credit counts needed for graduation are satisfied.

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**10.12 Concurrent Bachelor of Science (B.Sc.) and Bachelor of Education (B.Ed.) - Major Concentration Biology - Organismal with Minor Chemistry for Teachers (135 credits)**

Note: New students are no longer being admitted to this program.

The Concurrent Bachelor of Science (B.Sc.) and Bachelor of Education (B.Ed.) - Major Concentration Biology - Organismal with Minor Chemistry for Teachers is jointly offered by the Faculty of Science and the Faculty of Education. Separately, the Bachelor of Science degree requires 90 credits (or 120 credits for students who have not completed the basic sciences) and the Bachelor of Education degree requires 120 credits. In the concurrent program, the requirements for the two degrees are combined in such a way that students complete 135 (or 165 credits) to fulfil all the requirements for graduation for both the B.Sc. and the B.Ed.

Graduates of the B.Ed. degree are recommended by the University to the Quebec Ministère de l'É

BIOL 111	(3)	Principles: Organismal Biology
BIOL 112	(3)	Cell and Molecular Biology
CHEM 110	(4)	General Chemistry 1
CHEM 115*	(4)	Accelerated General Chemistry: Giants in Science
CHEM 120*	(4)	General Chemistry 2
COMP 202	(3)	Foundations of Programming
ESYS 104	(3)	The Earth System
MATH 133	(3)	Linear Algebra and Geometry
PSYC 100	(3)	Introduction to Psychology

First calculus course, one of:

MATH 139	(4)	Calculus 1 with Precalculus
MATH 140	(3)	Calculus 1
MATH 150	(4)	Calculus A

Second calculus course, one of:

MATH 141	(4)	Calculus 2
MATH 151	(4)	Calculus B

First physics course, one of:

PHYS 101	(4)	Introductory Physics - Mechanics
PHYS 131	(4)	Mechanics and Waves

Second physics course, one of:

PHYS 102	(4)	Introductory Physics - Electromagnetism
PHYS 142	(4)	Electromagnetism and Optics

### Electives

Students wishing to take elective courses may choose them from introductory courses offered by departments in the Faculties of Science or of Arts. A list of recommended courses is found at [http://www.mcgill.ca/science/sousa/new\\_students/u0/bsc\\_freshman/approved/](http://www.mcgill.ca/science/sousa/new_students/u0/bsc_freshman/approved/). Certain courses offered by other faculties may also be taken, but some restrictions apply.

Consult the SOUSA website at [http://www.mcgill.ca/science/sousa/continuing\\_students/bsc/outside/](http://www.mcgill.ca/science/sousa/continuing_students/bsc/outside/) for more information about taking courses from other faculties.

### Education Component (60 credits)

60 credits of Education Component consisting of:

54 credits of required courses

6 credits of complementary courses

### Required Courses

54 credits

\* Note: The courses marked with an asterisk are counted toward both degrees. They will count as "electives" for the B.Sc. degree, although a grade of "C" or better is required.

The English Language Requirement (EDEC 215) must be taken in the Fall semester following the Freshman year.

EDEC 201	(1)	First Year Professional Seminar
EDEC 215	(0)	English Exam for Teacher Certification
EDEC 247*	(3)	Policy Issues in Quebec Education
EDEC 254	(1)	Second Professional Seminar (Secondary)
EDEC 262*	(3)	Media, Technology and Education
EDEC 351	(2)	Third Professional Seminar (Secondary)
EDEC 404	(3)	Fourth Year Professional Seminar (Sec)
EDES 335	(3)	Teaching Secondary Science 1
EDES 350	(3)	Classroom Practices (Secondary)
EDES 435	(3)	Teaching Secondary Science 2
EDFE 200	(2)	First Field Experience (K/Elem & Secondary)
EDFE 254	(3)	Second Field Experience (Secondary)
EDFE 351	(8)	Third Field Experience (Secondary)
EDFE 451	(7)	Fourth Field Experience (Secondary)
EDPE 300*	(3)	Educational Psychology
EDPE 304	(3)	Measurement and Evaluation
EDPI 309*	(3)	Diverse Learners
EDPI 341	(3)	Instruction in Inclusive Schools

### Complementary Courses

6 credits selected as follows:

\* Note: The courses marked with an asterisk are counted toward both degrees. They will count as "electives" for the B.Sc. degree, although a grade of "C" or better is required.

3 credits, one of the three following courses:

EDEC 233*	(3)	First Nations and Inuit Education
EDEC 248*	(3)	Multicultural Education
EDEC 249*	(3)	Global Education and Social Justice

3 credits, one of the two following courses:

EDEC 260*	(3)	Philosophical Foundations
EDEC 261*	(3)	Philosophy of Catholic Education

### Major Concentration Biology - Organismal (36 credits)

The Major Concentration Biology - Organismal is a planned sequence of courses designed to permit a degree of specialization in organismal biology.

Advising Note: Freshman students should be aware that PHYS 101 and/or PHYS 102 are required for some of the courses in the major and minor concentrations

BIOL 202	(3)	Basic Genetics
BIOL 205	(3)	Biology of Organisms
BIOL 206	(3)	Methods in Biology of Organisms
BIOL 215	(3)	Introduction to Ecology and Evolution
BIOL 304	(3)	Evolution
BIOL 308	(3)	Ecological Dynamics

**Complementary Courses**

12 credits selected from:

BIOL 303	(3)	Developmental Biology
BIOL 305	(3)	Animal Diversity
BIOL 306	(3)	Neural Basis of Behaviour
BIOL 307	(3)	Behavioural Ecology
BIOL 310	(3)	Biodiversity and Ecosystems
BIOL 331	(3)	Ecology/Behaviour Field Course
BIOL 342	(3)	Marine Biology
BIOL 350	(3)	Insect Biology and Control
BIOL 373	(3)	Biometry
BIOL 427	(3)	Herpetology
BIOL 435	(3)	Natural Selection
BIOL 441	(3)	Biological Oceanography
BIOL 465	(3)	Conservation Biology

or other appropriate course at the 300 level or higher with the permission of an adviser.

**Minor Chemistry (18 credits)****Required Courses**

18 credits selected as follows:

\* Note: denotes courses with CEGEP equivalents.

Substitutions for these by more advanced courses may be made at the discretion of the Adviser.

CHEM 203	(3)	Survey of Physical Chemistry
CHEM 212*	(4)	Introductory Organic Chemistry 1
CHEM 222*	(4)	Introductory Organic Chemistry 2
CHEM 253	(1)	Introductory Physical Chemistry 1 Laboratory
CHEM 281	(3)	Inorganic Chemistry 1
CHEM 287	(2)	Introductory Analytical Chemistry
CHEM 297	(1)	Introductory Analytical Chemistry Laboratory

**Additional Science Courses (15 credits)**

15 credits selected as follows:

12 credits:

BIOL 210	(3)	Perspectives of Science
CHEM 381	(3)	Inorganic Chemistry 2

MATH 203	(3)	Principles of Statistics 1
MATH 222	(3)	Calculus 3

plus 3 credits, one of:

CHEM 180	(3)	World of Chemistry: Environment
CHEM 181	(3)	World of Chemistry: Food
CHEM 182	(3)	World of Chemistry: Technology
CHEM 183	(3)	World of Chemistry: Drugs

**Electives (6 credits)**

6 credits, of which at least 3 credits must be Science Electives.

Option 1) 2 courses from MATH and 4 courses from BIOL, CHEM or PHYS;

or

Option 2) 3 courses from MATH and 3 courses from BIOL, CHEM or PHYS.

### Science Complementary

The seventh course is chosen from the list of Approved Freshman Science Courses.

Notes:

1. Students who have not studied all of Biology, Chemistry, and Physics at the grade 12 level or equivalent are strongly advised to include at least one course in the missing discipline in their Freshman Program.
2. Many students will complete more than seven courses from the Approved Freshman Science Courses list, particularly those who wish to leave several options open for their choice of major.
3. Students entering the Freshman Program must be aware of the department specific requirements when selecting their courses. Detailed advising information is available at [http://www.mcgill.ca/science/sousa/new\\_students/u0/bsc\\_freshman/specific/](http://www.mcgill.ca/science/sousa/new_students/u0/bsc_freshman/specific/).
4. The maximum number of courses per term, required, complementary, and elective, is five.

### List of Approved Freshman Science Courses

Select the approved courses according to the instructions above.

Note:

\* CHEM 115 (not open to students who are taking or have taken CHEM 110 or CHEM 120)

\* CHEM 120 (not open to students who have taken CHEM 115)

BIOL 111	(3)	Principles: Organismal Biology
BIOL 112	(3)	Cell and Molecular Biology
CHEM 110	(4)	General Chemistry 1
CHEM 115*	(4)	Accelerated General Chemistry: Giants in Science
CHEM 120*	(4)	General Chemistry 2
COMP 202	(3)	Foundations of Programming
ESYS 104	(3)	The Earth System
MATH 133	(3)	Linear Algebra and Geometry
PSYC 100	(3)	Introduction to Psychology

First calculus course, one of:

MATH 139	(4)	Calculus 1 with Precalculus
MATH 140	(3)	Calculus 1
MATH 150	(4)	Calculus A

Second calculus course, one of:

MATH 141	(4)	Calculus 2
MATH 151	(4)	Calculus B

First physics course, one of:

PHYS 101	(4)	Introductory Physics - Mechanics
PHYS 131	(4)	Mechanics and Waves

Second physics course, one of:

PHYS 102	(4)	Introductory Physics - Electromagnetism
PHYS 142	(4)	Electromagnetism and Optics

### Electives

Students wishing to take elective courses may choose them from introductory courses offered by departments in the Faculties of Science or of Arts. A list of recommended courses is found at [http://www.mcgill.ca/science/sousa/new\\_students/u0/bsc\\_freshman/approved/](http://www.mcgill.ca/science/sousa/new_students/u0/bsc_freshman/approved/). Certain courses offered by other faculties may also be taken, but some restrictions apply.

Consult the SOUSA website at [http://www.mcgill.ca/science/sousa/continuing\\_students/bsc/outside/](http://www.mcgill.ca/science/sousa/continuing_students/bsc/outside/) for more information about taking courses from other faculties.

### Education Component (60 credits)

60 credits of Education Component, consisting of:

54 credits of required courses

6 credits of complementary courses

### Required Courses

54 credits

\* Note: The courses marked with an asterisk are counted toward both degrees. They will count as "electives" for the B.Sc. degree, although a grade of "C" or better is required.

The English Language Requirement (EDEC 215) must be taken in the Fall semester following the Freshman Year.

EDEC 201	(1)	First Year Professional Seminar
EDEC 215	(0)	English Exam for Teacher Certification
EDEC 247*	(3)	Policy Issues in Quebec Education
EDEC 254	(1)	Second Professional Seminar (Secondary)
EDEC 262*	(3)	Media, Technology and Education
EDEC 351	(2)	Third Professional Seminar (Secondary)
EDEC 404	(3)	Fourth Year Professional Seminar (Sec)
EDES 335	(3)	Teaching Secondary Science 1
EDES 350	(3)	Classroom Practices (Secondary)
EDES 435	(3)	Teaching Secondary Science 2
EDFE 200	(2)	First Field Experience (K/Elem & Secondary)
EDFE 254	(3)	Second Field Experience (Secondary)
EDFE 351	(8)	Third Field Experience (Secondary)
EDFE 451	(7)	Fourth Field Experience (Secondary)
EDPE 300*	(3)	Educational Psychology
EDPE 304	(3)	Measurement and Evaluation
EDPI 309*	(3)	Diverse Learners
EDPI 341	(3)	Instruction in Inclusive Schools

### Complementary Courses

6 credits selected as follows:

\* Note: The courses marked with an asterisk are counted toward both degrees. They will count as "electives" for the B.Sc. degree, although a grade of "C" or better is required.

3 credits, one of the three follo



EDEC 248*	(3)	Multicultural Education
EDEC 249*	(3)	Global Education and Social Justice

3 credits, one of the two following courses:

EDEC 260*	(3)	Philosophical Foundations
EDEC 261*	(3)	Philosophy of Catholic Education

### Major Concentration Biology - Organismal (37 credits)

The Major Concentration Biology - Organismal is a planned sequence of courses designed to permit a degree of specialization in organismal biology.

Advising Note: Freshman students should be aware that PHYS 101 and/or PHYS 102 are required for some of the courses in the major and minor concentrations in Biology.

### Required Courses\*

28 credits selected as follows:

\* Students who have already taken CHEM 212 or its equivalent will choose another appropriate complementary course, to be approved by the Adviser. Regardless of the substitution, students must take at least 36 credits in this program.

BIOL 200	(3)	Molecular Biology
BIOL 201	(3)	Cell Biology and Metabolism
BIOL 202	(3)	Basic Genetics
BIOL 205	(3)	Biology of Organisms
BIOL 206	(3)	Methods in Biology of Organisms
BIOL 215	(3)	Introduction to Ecology and Evolution
BIOL 304	(3)	Evolution
BIOL 308	(3)	Ecological Dynamics
CHEM 212*	(4)	Introductory Organic Chemistry 1

### Complementary Courses

9 credits selected from:

BIOL 303	(3)	Developmental Biology
BIOL 305	(3)	Animal Diversity
BIOL 306	(3)	Neural Basis of Behaviour
BIOL 307	(3)	Behavioural Ecology
BIOL 310	(3)	Biodiversity and Ecosystems
BIOL 331	(3)	Ecology/Behaviour Field Course
BIOL 342	(3)	Marine Biology
BIOL 350	(3)	Insect Biology and Control
BIOL 352	(3)	Vertebrate Evolution
BIOL 373	(3)	Biometry
BIOL 427	(3)	Herpetology
BIOL 435	(3)	Natural Selection
BIOL 441	(3)	Biological Oceanography
BIOL 465	(3)	Conservation Biology

or other appropriate course at the 300 level or higher with the permission of an adviser.

5 credits, of which at least 2 credits must be Science Electives.

The electives must be chosen in such a way that the credit counts needed for graduation are satisfied.

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## 10.14 Concurrent Bachelor of Science (B.Sc.) and Bachelor of Education (B.Ed.) - Major Concentration Chemistry with Minor Biology for Teachers (135 credits)

Note: New students are no longer being admitted to this program.

The Concurrent Bachelor of Science (B.Sc.) and Bachelor of Education (B.Ed.) - Major Concentration Chemistry with Minor Biology for Teachers is jointly offered by the Faculty of Science and the Faculty of Education. Separately, the Bachelor of Science degree requires 90 credits (or 120 credits for students who have not completed the basic sciences) and the Bachelor of Education degree requires 120 credits. In the concurrent program, the requirements for the two degrees are combined in such a way that students complete 135 (or 165 credits) to fulfil all the requirements for graduation for both the B.Sc. and the B.Ed.

Graduates of the B.Ed. degree are recommended by the University to the Quebec Ministère de l'Éducation, du Loisir et du Sport (MELS) for Quebec Teacher Certification. For more information about teacher certification in Quebec, please refer to the Faculty of Education section under "Overview of Faculty Programs", "Undergraduate Education Programs", and "Quebec Teacher Certification".

The Major Concentration Chemistry with Minor Biology is one of the nine variations of the program and allows students to focus their Science degree in Chemistry with a subspecialization in Biology.

To fulfil the requirements for graduation for the Concurrent Bachelor of Science and Bachelor of Education, the 135 credits (or 165 credits for students admitted without basic sciences) include the following:

(30 credits of Science Freshman Program (for students admitted without basic sciences))

60 credits of Education Component

69 credits of Science Component consisting of:

- 36 credits of the Major Concentration Chemistry

- 24 credits of the Minor Biology

- 9 credits of Additional Science Courses

6 credits of Electives, of which at least 3 credits must be Science Electives, depending on how many credits count toward both the B.Sc. and the B.Ed. degrees.

For details on the counting of credits toward both degrees (double-counting) visit the program website <http://www.mcgill.ca/scienceforteachers/>.

### B.Sc. Freshman Program

Students who enter Science in U0 will normally be registered in the Science Freshman Program until they complete their first year. They must consult an adviser in the Science Office for Undergraduate Student Advising (SOUSA) to obtain advice and approval of their course selection. Full details are available on the SOUSA website at <http://www.mcgill.ca/science/sousa>. Academic advising is also available by email. The address is [newstudentadvising.science@mcgill.ca](mailto:newstudentadvising.science@mcgill.ca).

Students normally complete 30 credits which must include at least seven courses from the list of Approved Freshman Science Courses, selected as follows:

### General Math and Science Breadth

Six of the Freshman courses must satisfy one of the following:

Option 1) 2 courses from MATH and 4 courses from BIOL, CHEM or PHYS;

or

Option 2) 3 courses from MATH and 3 courses from BIOL, CHEM or PHYS.

### Science Complementary

The seventh course is chosen from the list of Approved Freshman Science Courses.

Notes:

1. Students who have not studied all of Biology, Chemistry, and Physics at the grade 12 level or equivalent are strongly advised to include at least one course in the missing discipl3 Tmi(SOUSAl3 Te 169.589 Tm(Science CoTm7/31sSOUSA4 67.52 11.h an53w CoTm7/31sSOUSA4 67iTe 11 0 0 1 e5 67.52 116.243 T1 90y

4. The maximum number of courses per term, required, complementary, and elective, is five.

### List of Approved Freshman Science Courses

Select the approved courses according to the instructions above.

Note:

\* CHEM 115 (not open to students who are taking or have taken CHEM 110 or CHEM 120)

\* CHEM 120 (not open to students who have taken CHEM 115)

BIOL 111	(3)	Principles: Organismal Biology
BIOL 112	(3)	Cell and Molecular Biology
CHEM 110	(4)	General Chemistry 1
CHEM 115*	(4)	Accelerated General Chemistry: Giants in Science
CHEM 120*	(4)	General Chemistry 2
COMP 202	(3)	Foundations of Programming
ESYS 104	(3)	The Earth System
MATH 133	(3)	Linear Algebra and Geometry
PSYC 100	(3)	Introduction to Psychology

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54 credits of required courses

6 credits of complementary courses

### Required Courses

54 credits

\* Note: The courses marked with an asterisk are counted toward both degrees. They will count as "electives" for the B.Sc. degree, although a grade of "C" or better is required.

The English Language Requirement (EDEC 215) must be taken in the Fall semester following the Freshman year.

EDEC 201	(1)	First Year Professional Seminar
EDEC 215	(0)	English Exam for Teacher Certification
EDEC 247*	(3)	Policy Issues in Quebec Education
EDEC 254	(1)	Second Professional Seminar (Secondary)
EDEC 262*	(3)	Media, Technology and Education
EDEC 351	(2)	Third Professional Seminar (Secondary)
EDEC 404	(3)	Fourth Year Professional Seminar (Sec)
EDES 335	(3)	Teaching Secondary Science 1
EDES 350	(3)	Classroom Practices (Secondary)
EDES 435	(3)	Teaching Secondary Science 2
EDFE 200	(2)	First Field Experience (K/Elem & Secondary)
EDFE 254	(3)	Second Field Experience (Secondary)
EDFE 351	(8)	Third Field Experience (Secondary)
EDFE 451	(7)	Fourth Field Experience (Secondary)
EDPE 300*	(3)	Educational Psychology
EDPE 304	(3)	Measurement and Evaluation
EDPI 309*	(3)	Diverse Learners
EDPI 341	(3)	Instruction in Inclusive Schools

### Complementary Courses

6 credits selected as follows:

\* Note: The courses marked with an asterisk are counted toward both degrees. They will count as "electives" for the B.Sc. degree, although a grade of "C" or better is required.

3 credits, one of the three following courses:

EDEC 233*	(3)	First Nations and Inuit Education
EDEC 248*	(3)	Multicultural Education
EDEC 249*	(3)	Global Education and Social Justice

3 credits, one of the two following courses:

EDEC 260*	(3)	Philosophical Foundations
EDEC 261*	(3)	Philosophy of Catholic Education

### Major Concentration Chemistry (36 credits)

The Major Concentration Chemistry is not certified by the Ordre des Chimistes du Québec. Students interested in pursuing a career in Chemistry in Quebec are advised to take an appropriate B.Sc. program in Chemistry.



MATH 222

(3)

Calculus 3

**Electives (6 credits)**

6 credits, of which at least 3 credits must be Science Electives.

The electives must be chosen in such a way that the credit counts needed for graduation are satisfied.

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**10.15 Concurrent Bachelor of Science (B.Sc.) and Bachelor of Education (B.Ed.) - Major Concentration Chemistry with Minor Physics for Teachers (135 credits)**

Note: New students are no longer being admitted to this program.

The Concurrent Bachelor of Science (B.Sc.) and Bachelor of Education (B.Ed.) - Major Concentration Chemistry with Minor Physics for Teachers is jointly offered by the Faculty of Science and the Faculty of Education. Separately, the Bachelor of Science degree requires 90 credits (or 120 credits for students who have not completed the basic sciences) and the Bachelor of Education degree requires 120 credits. In the concurrent program, the requirements for the two degrees are combined in such a way that students complete 135 (or 165 credits) to f19.059 5546.381 Tm9allnts for the

2. Many students will complete more than seven courses from the Approved Freshman Science Courses list, particularly those who wish to leave several options open for their choice of major.
3. Students entering the Freshman Program must be aware of the department specific requirements when selecting their courses. Detailed advising information is available at [http://www.mcgill.ca/science/sousa/new\\_students/u0/bsc\\_freshman/specific/](http://www.mcgill.ca/science/sousa/new_students/u0/bsc_freshman/specific/).
4. The maximum number of courses per term, required, complementary, and elective, is five.

### List of Approved Freshman Science Courses

Select the approved courses according to the instructions above.

Note:

\* CHEM 115 (not open to students who are taking or have taken CHEM 110 or CHEM 120)

\* CHEM 120 (not open to students who have taken CHEM 115)

BIOL 111	(3)	Principles: Organismal Biology
BIOL 112	(3)	Cell and Molecular Biology
CHEM 110	(4)	General Chemistry 1
CHEM 115*	(4)	Accelerated General Chemistry: Giants in Science
CHEM 120*	(4)	General Chemistry 2
COMP 202	(3)	Foundations of Programming
ESYS 104	(3)	The Earth System
MATH 133	(3)	Linear Algebra and Geometry
PSYC 100	(3)	Introduction to Psychology

First calculus course, one of:

MATH 139	(4)	Calculus 1 with Precalculus
MATH 140	(3)	Calculus 1
MATH 150	(4)	Calculus A

Second calculus course, one of:

MATH 141	(4)	Calculus 2
MATH 151	(4)	Calculus B

First physics course, one of:

PHYS 101	(4)	Introductory Physics - Mechanics
PHYS 131	(4)	Mechanics and Waves

Second physics course, one of:

PHYS 102	(4)	Introductory Physics - Electromagnetism
PHYS 142	(4)	Electromagnetism and Optics

### Electives

Students wishing to take elective courses may choose them from introductory courses offered by departments in the Faculties of Science or of Arts. A list of recommended courses is found at [http://www.mcgill.ca/science/sousa/new\\_students/u0/bsc\\_freshman/approved/](http://www.mcgill.ca/science/sousa/new_students/u0/bsc_freshman/approved/). Certain courses offered by other faculties may also be taken, but some restrictions apply.

Consult the SOUSA website at [http://www.mcgill.ca/science/sousa/continuing\\_students/bsc/outside/](http://www.mcgill.ca/science/sousa/continuing_students/bsc/outside/) for more information about taking courses from other faculties.



**Education Component (60 credits)**

60 credits of Education Component, consisting of:

54 credits of required courses

6 credits of complementary courses

**Required Courses**

54 credits

\* Note: The courses marked with an asterisk are counted toward both degrees. They will count as "electives" for the B.Sc. degree, although a grade of "C" or better is required.

The English Language Requirement (EDEC 215) must be taken in the Fall semester following the Freshman year.

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**Major Concentration Chemistry (36 credits)**

The Major Concentration Chemistry is not certified by the Ordre des Chimistes du Québec. Students interested in pursuing a career in Chemistry in Quebec are advised to take an appropriate B.Sc. program in Chemistry.

The Major concentration is a planned sequence of courses designed to permit a degree of specialization in this discipline.

**Required Courses\***

18 credits selected as follows:

\* Note: Required courses taken at CEGEP or elsewhere that are not credited toward the Concurrent B.Sc. and B.Ed. must be replaced by courses from the Complementary Course List equal to or exceeding their credit value. Regardless of the substitution, students must take at least 36 credits in this program.

CHEM 203	(3)	Survey of Physical Chemistry
CHEM 212	(4)	Introductory Organic Chemistry 1
CHEM 222	(4)	Introductory Organic Chemistry 2
CHEM 253	(1)	Introductory Physical Chemistry 1 Laboratory
CHEM 281	(3)	Inorganic Chemistry 1
CHEM 287	(2)	Introductory Analytical Chemistry
CHEM 297	(1)	Introductory Analytical Chemistry Laboratory

**Complementary Courses**

18 credits selected from:

CHEM 219	(3)	Introduction to Atmospheric Chemistry
CHEM 263	(1)	Introductory Physical Chemistry 2 Laboratory
CHEM 302	(3)	Introductory Organic Chemistry 3
CHEM 334	(3)	Advanced Materials
CHEM 367	(3)	Instrumental Analysis 1
CHEM 381	(3)	Inorganic Chemistry 2
CHEM 382	(3)	Organic Chemistry: Natural Products
CHEM 531	(3)	Chemistry of Inorganic Materials
CHEM 571	(3)	Polymer Synthesis
CHEM 582	(3)	Supramolecular Chemistry
CHEM 591	(3)	Bioinorganic Chemistry

**Minor Physics (18 credits)****Required Course**

3 credits

PHYS 257	(3)	Experimental Methods 1
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**Complementary Courses**

15 credits to be selected as follows:

One of:

PHYS 230	(3)	Dynamics of Simple Systems
PHYS 251	(3)	Honours Classical Mechanics 1

One of:

PHYS 232	(3)	Heat and Waves
PHYS 253	(3)	Thermal Physics

One of:

PHYS 241	(3)	Signal Processing
PHYS 258	(3)	Experimental Methods 2

One of:

PHYS 214	(3)	Introductory Astrophysics
PHYS 260	(3)	Modern Physics and Relativity
PHYS 271	(3)	Introduction to Quantum Physics

One of:

PHYS 340	(3)	Majors Electricity and Magnetism
PHYS 350	(3)	Honours Electricity and Magnetism

**Additional Science Courses (15 credits)**

BIOL 210	(3)	Perspectives of Science
MATH 203	(3)	Principles of Statistics 1
MATH 222	(3)	Calculus 3
MATH 223	(3)	Linear Algebra
MATH 314	(3)	Advanced Calculus

**Electives (6 credits)**

6 credits, of which at least 3 credits must be Science Electives.

The electives must be chosen in such a way that the credit counts needed for graduation are satisfied.

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**Concurrent Bachelor of Science (B.Sc.) and Bachelor of Education (B.Ed.) - Major Concentration Ph**



MATH 133	(3)	Linear Algebra and Geometry
PSYC 100	(3)	Introduction to Psychology

EDEC 404	(3)	Fourth Year Professional Seminar (Sec)
EDES 335	(3)	Teaching Secondary Science 1
EDES 350	(3)	Classroom Practices (Secondary)
EDES 435	(3)	Teaching Secondary Science 2
EDFE 200	(2)	First Field Experience (K/Elem & Secondary)
EDFE 254	(3)	Second Field Experience (Secondary)
EDFE 351	(8)	Third Field Experience (Secondary)
EDFE 451	(7)	Fourth Field Experience (Secondary)
EDPE 300*	(3)	Educational Psychology
EDPE 304	(3)	Measurement and Evaluation
EDPI 309*	(3)	Diverse Learners
EDPI 341	(3)	Instruction in Inclusive Schools

### Complementary Courses

6 credits selected as follows:

\* Note: The courses marked with an asterisk are counted toward both degrees. They will count as "electives" for the B.Sc. degree, although a grade of "C" or better is required.

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PHYS 446 (3) Majors Quantum Physics

**Complementary Courses**

6 credits selected from:

PHYS 214	(3)	Introductory Astrophysics
PHYS 224	(3)	Physics of Music
PHYS 241	(3)	Signal Processing
PHYS 258	(3)	Experimental Methods 2
PHYS 334	(3)	Advanced Materials
PHYS 534	(3)	Nanoscience and Nanotechnology

or any 300- or 400-level course approved by an adviser.

**Minor Biology (24 credits)**

## 10.17 Concurrent Bachelor of Science (B.Sc.) and Bachelor of Education (B.Ed.) - Major Concentration Physics with Minor Chemistry for Teachers (135 credits)

Note: New students are no longer being admitted to this program.

The Concurrent Bachelor of Science (B.Sc.) and Bachelor of Education (B.Ed.) - Major Concentration Physics with Minor Chemistry for Teachers is jointly offered by the Faculty of Science and the Faculty of Education. Separately, the Bachelor of Science degree requires 90 credits (or 120 credits for students who have not completed the basic sciences) and the Bachelor of Education degree requires 120 credits. In the concurrent program, the requirements for the two degrees are combined in such a way that students complete 135 (or 165 credits) to fulfil all the requirements for graduation for both the B.Sc. and the B.Ed.

Graduates of the B.Ed. degree are recommended by the University to the Quebec Ministère de l'Éducation, du Loisir et du Sport (MELS) for Quebec Teacher Certification. For more information about teacher certification in Quebec, please refer to the Faculty of Education section under "Overview of Faculty Programs", "Undergraduate Education Programs", and "Quebec Teacher Certification".

The Major Concentration Physics with Minor Chemistry is one of the nine variations of the program and allows students to focus their Science degree in Physics with a subspecialization in Chemistry.

To fulfil the requirements for graduation for the Concurrent Bachelor of Science and Bachelor of Education, the 135 credits (or 165 credits for students admitted without basic sciences) include the following:

(30 credits of Science Freshman Program (for students admitted without basic sciences))

60 credits of Education Component

69 credits of Science Component consisting of:

- 36 credits of the Major Concentration Physics

- 18 credits of the Minor Chemistry

- 15 credits of Additional Science Courses

6 credits of Electives, of which at least 3 credits must be Science Electives, depending on how many credits count toward both the B.Sc. and the B.Ed. degrees.

For details on the counting of credits toward both degrees (double-counting) visit the program website <http://www.mcgill.ca/scienceforteachers/>.

### B.Sc. Freshman Program

Students who enter Science in U0 will normally be registered in the Science Freshman Program until they complete their first year. They must consult an adviser in the Science Office for Undergraduate Student Advising (SOUSA) to obtain advice and approval of their course selection. Full details are available on the SOUSA website at <http://www.mcgill.ca/science/sousa>. Academic advising is also available by email. The address is [newstudentadvising.science@mcgill.ca](mailto:newstudentadvising.science@mcgill.ca).

Students normally complete 30 credits which must include at least seven courses from the list of Approved Freshman Science courses, selected as follows:

### General Math and Science Breadth

Six of the Freshman courses must satisfy one of the following:

Option 1) 2 courses from MATH and 4 courses from BIOL, CHEM or PHYS;

or

Option 2) 3 courses from MATH and 3 courses from BIOL, CHEM or PHYS.

### Science Complementary

The seventh course is chosen from the list of Approved Freshman Science Courses.

Notes:

1. Students who have not studied all of Biology, Chemistry, and Physics at the grade 12 level or equivalent are strongly advised to include at least one course in the missing discipline in their Freshman Program.
2. Many students will complete more than seven courses from the Approved Freshman Science Courses list, particularly those who wish to leave several options open for their choice of major.
3. Students entering the Freshman Program must be aware of the department specific requirements when selecting their courses. Detailed advising information is available at [http://www.mcgill.ca/science/sousa/new\\_students/u0/bsc\\_freshman/specific/](http://www.mcgill.ca/science/sousa/new_students/u0/bsc_freshman/specific/).
4. The maximum number of courses per term, required, complementary, and elective, is five.

### List of Approved Freshman Science Courses



Select the approved courses according to the instructions above.

Note:

\* CHEM 115 (not open to students who are taking or have taken CHEM 110 or CHEM 120)

\* CHEM 120 (not open to students who have taken CHEM 115)

BIOL 111	(3)	Principles: Organismal Biology
BIOL 112	(3)	Cell and Molecular Biology
CHEM 110	(4)	General Chemistry 1
CHEM 115*	(4)	Accelerated General Chemistry: Giants in Science
CHEM 120*	(4)	General Chemistry 2
COMP 202	(3)	Foundations of Programming
ESYS 104	(3)	The Earth System
MATH 133	(3)	Linear Algebra and Geometry
PSYC 100	(3)	Introduction to Psychology

First calculus course, one of:

MATH 139	(4)	Calculus 1 with Precalculus
MATH 140	(3)	Calculus 1
c6h1(MA)Tj1ce4)	(4)	Calculus A

## Required Courses

54 credits

\* Note: The courses marked with an asterisk are counted toward both degrees. They will count as "electives" for the B.Sc. degree, although a grade of "C" or better is required.

The English Language Requirement (EDEC 215) must be taken in the Fall semester following the Freshman year.

EDEC 201	(1)	First Year Professional Seminar
EDEC 215	(0)	English Exam for Teacher Certification
EDEC 247*	(3)	Policy Issues in Quebec Education
EDEC 254	(1)	Second Professional Seminar (Secondary)
EDEC 262*	(3)	Media, Technology and Education
EDEC 351	(2)	Third Professional Seminar (Secondary)
EDEC 404	(3)	Fourth Year Professional Seminar (Sec)
EDES 335	(3)	Teaching Secondary Science 1
EDES 350	(3)	Classroom Practices (Secondary)
EDES 435	(3)	Teaching Secondary Science 2
EDFE 200	(2)	First Field Experience (K/Elem & Secondary) Second Field Experience (Secondary)

\* Note: Required courses taken at CEGEP or elsewhere that are not credited toward the Concurrent B.Sc. and B.Ed. must be replaced by courses from the Complementary Course List equal to or exceeding their credit value. Regardless of the substitution, students must take at least 36 credits in this program.

- MATH 222 (3) Calculus 3
- MATH 223 (3) Linear Algebra
- MATH 314 (3) Advanced Calculus
- MATH 315 (3) Ordinary Differential Equations

PHYS 237 of(3iIs4h8.56 Tm(3)here thatohat andDyna(3iIs4h52.745 Systems thaW7 of(3iIs4h59.743m(where thaafTj1 0 0 1 263177m(where thadvTj1 0 0 1 67106m

PHYS 584 (3)

MATH 203 (3) Principles of Statistics 1

plus 3 credits, one of:

CHEM 180 (3) World of Chemistry: Environment

CHEM 181 (3) World of Chemistry: Food

CHEM 182 (3) World of Chemistry: Technology

CHEM 183 (3) World of Chemistry: Drugs

plus 3 credits, one additional Physics (PHYS) course approved by the Physics Department.

### **Electives (6 credits)**

6 credits, of which at least 3 credits must be Science Electives.

The electives must be chosen in such a way that the credit counts needed for graduation are satisfied.

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## **10.18 Concurrent Bachelor of Science (B.Sc.) and Bachelor of Education (B.Ed.) - Major Mathematics for Teachers (135 credits)**

Note: New students are no longer being admitted to this program.

The Concurrent Bachelor of Science (B.Sc.) and Bachelor of Education (B.Ed.) - Major Mathematics for Teachers is jointly offered by the Faculty of Science and the Faculty of Education. Separately, the Bachelor of Science degree requires 90 credits (or 120 credits for students who have not completed the basic sciences) and the Bachelor of Education degree requires 120 credits. In the concurrent program, the requirements for the two degrees are combined in such a way that students complete 135 (or 165 credits) to fulfil all the requirements for graduation for both the B.Sc. and the B.Ed.

Graduates of the B.Ed. degree are recommended by the University to the Quebec Ministère de l'Éducation, du Loisir et du Sport (MELS) for Quebec Teacher Certification. For more information about teacher certification in Quebec, please refer to the Faculty of Education section under "Overview of Faculty Programs", "Undergraduate Education Programs", and "Quebec Teacher Certification".

The Major Mathematics is one of the nine variations of the program and allows students to focus their Science degree in Mathematics.

To fulfil the requirements for graduation for the Concurrent Bachelor of Science and Bachelor of Education, the 135 credits (or 165 credits for students admitted without basic sciences) include the following:

(30 credits of Science Freshman Program (for students admitted without basic sciences))

60 credits of Education Component

54 credits of Science Component consisting of:

- 54 credits of the Major Mathematics

21 credits of Electives, of which at least 18 credits must be Science Electives, depending on how many credits count toward both the B.Sc. and the B.Ed. degrees.

For details on the counting of credits toward both degrees (double-counting) visit the program website <http://www.mcgill.ca/scienceforteachers/>.

### **B.Sc. Freshman Program**

Students who enter Science in U0 will normally be registered in the Science Freshman Program until they complete their first year. They must consult an adviser in the Science Office for Undergraduate Student Advising (SOUSA) to obtain advice and approval of their course selection. Full details are available on the SOUSA website at <http://www.mcgill.ca/science/sousa>. Academic advising is also available by email. The address is [newstudentadvising.science@mcgill.ca](mailto:newstudentadvising.science@mcgill.ca).

## Science Complementary

The seventh course is chosen from the list of Approved Freshman Science Courses.

Notes:

1. Students who have not studied all of Biology, Chemistry, and Physics at the grade 12 level or equivalent are strongly advised to include at least one course in the missing discipline in their Freshman Program.
2. Many students will complete more than seven courses from the Approved Freshman Science Courses list, particularly those who wish to leave several options open for their choice of major.
3. Students entering the Freshman Program must be aware of the department specific requirements when selecting their courses. Detailed advising information is available at [http://www.mcgill.ca/science/sousa/new\\_students/u0/bsc\\_freshman/specific/](http://www.mcgill.ca/science/sousa/new_students/u0/bsc_freshman/specific/).
4. The maximum number of courses per term, required, complementary, and electi

**Electives**

Students wishing to take elective courses may choose them from introductory courses offered by departments in the Faculties of Science or of Arts. A list of recommended courses is found at [http://www.mcgill.ca/science/sousa/new\\_students/u0/bsc\\_freshman/approved/](http://www.mcgill.ca/science/sousa/new_students/u0/bsc_freshman/approved/). Certain courses offered by other faculties may also be taken, but some restrictions apply.

Consult the SOUSA website at [http://www.mcgill.ca/science/sousa/continuing\\_students/bsc/outside/](http://www.mcgill.ca/science/sousa/continuing_students/bsc/outside/) for more information about taking courses from other faculties.

**Education Component (60 credits)**

60 credits of Education Component, consisting of:

3 credits, one of the two following courses:

EDEC 260*	(3)	Philosophical Foundations
EDEC 261*	(3)	Philosophy of Catholic Education

### Major Mathematics (54 credits)

#### Program Prerequisites

Students entering the Major program are normally expected to have completed the courses below or their equivalents. Otherwise they will be required to make up any deficiencies in these courses over and above the 54 credits for the program.

MATH 133	(3)	Linear Algebra and Geometry
MATH 140	(3)	Calculus 1
MATH 141	(4)	Calculus 2

#### Required Courses

27 credits

Where appropriate, Honours courses may be substituted for equivalent Major courses.

\* Students select either MATH 249 or MATH 316 but not both.

MATH 222	(3)	Calculus 3
MATH 235	(3)	Algebra 1
MATH 236	(3)	Algebra 2
MATH 242	(3)	Analysis 1
MATH 243	(3)	Analysis 2
MATH 249*	(3)	Honours Complex Variables
MATH 314	(3)	Advanced Calculus
MATH 315	(3)	Ordinary Differential Equations
MATH 316*	(3)	Complex Variables
MATH 323	(3)	Probability

#### Complementary Courses

27 credits selected with the following specifications:

12 credits specifically required of students in the Concurrent B.Sc. and B.Ed. Major Mathematics:

COMP 202	(3)	Foundations of Programming
MATH 324	(3)	Statistics
MATH 338	(3)	History and Philosophy of Mathematics
MATH 348	(3)	Topics in Geometry

at least 3 credits from:

MATH 317	(3)	Numerical Analysis
MATH 335	(3)	Computational Algebra
MATH 340	(3)	Discrete Structures 2

12 credits from:

It is highly recommended that students include MATH 318 and MATH 346 in their complementary courses.

MATH 204	(3)	Principles of Statistics 2
MATH 318	(3)	Mathematical Logic
MATH 319	(3)	Introduction to Partial Differential Equations
MATH 320	(3)	Differential Geometry
MATH 326	(3)	Nonlinear Dynamics and Chaos
MATH 327	(3)	Matrix Numerical Analysis
MATH 329	(3)	Theory of Interest
MATH 346	(3)	Number Theory
MATH 352	(1)	Problem Seminar
MATH 407	(3)	Dynamic Programming
MATH 410	(3)	Majors Project
MATH 417	(3)	Mathematical Programming
MATH 423	(3)	Regression and Analysis of Variance
MATH 430	(3)	Mathematical Finance
MATH 447	(3)	Introduction to Stochastic Processes
MATH 523	(4)	Generalized Linear Models
MATH 525	(4)	Sampling Theory and Applications

In consultation with an adviser, 3 of the 12 credits may be selected from other MATH courses or related disciplines.

### **Electives (21 credits)**

21 credits of electives, of which at least 18 credits must be Science Electives chosen in consultation with the Science Adviser.

The electives must be chosen in such a way that the credit counts needed for graduation are satisfied.

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## **10.19 Concurrent Bachelor of Music (B.Mus.) - Major Music Education and Bachelor of Education (B.Ed.) - Music Elementary and Secondary (137 credits)**

The Bachelor of Music (B.Mus.) - Major Music Education, when offered concurrently with the The Bachelor of Education - Major Music Elementary and Secondary, provides students with the opportunity to obtain a Bachelor of Music degree and a Bachelor of Education degree after the completion of 137 credits, normally five years (170 credits or six years for out-of-province students\*). The Concurrent program combines academic studies in music, professional studies, and field experience. The two degrees are awarded during the same convocation period.

\* Out-of-province students or those who have not completed Quebec CEGEP, French Baccalaureate, International Baccalaureate, or at least one year of university studies prior to commencing the Concurrent program.

To be admitted to the Concurrent program, students must satisfy the regular admission requirements of the Schulich School of Music and Faculty of Education. Normally, students will be admitted to both components of the Concurrent program simultaneously. Applicants who already hold a Bachelor of Music degree should apply to the Faculty of Education. Students who have completed 30 or more credits in a Bachelor of Music program, exclusive of the Freshman Year for out-of-province students, should apply for admission to the Concurrent program.

All applications for the Concurrent program are to be made to the Admissions Office of the Schulich School of Music.

The B.Mus. Major Music Education program in the Schulich School of Music focuses on the development of the prospective music educator as a musician. This is achieved not only through core music history, theory, musicianship, and performance courses but also through different instrumental, vocal, and conducting techniques courses. Laboratory experiences provide an opportunity to develop facility with basic music rehearsing/teaching techniques, with



program and MUIN 283 "BMus Concentration Final Examination" or equivalent. They would be required to complete 61 music credits, 6 elective credits, and 55 education credits from the program given below.

The components of the 137-credit Concurrent Bachelor of Music - Major Music Education and Bachelor of Education - Music Elementary and Secondary are as follows:

55 professional Education credits

70 Music academic credits

9 music elective credits

3 non-music elective credits

### Program Prerequisites - Freshman Program

33 credits

### Prerequisite Courses

33 credits distributed as follows:

4 credits (2 credits per term) Basic Ensemble Training

6 credits of Non-Music Electives

and 23 credits in the following course list:

Students who can demonstrate through auditions and placement tests that they have mastered the material in any of the courses below will be exempt from them and may proceed to more advanced courses. First-year students enrolled in the Bachelor of Music program who have completed the Quebec Diploma of Collegial Studies (Diplôme d'études collégiales) in a Music concentration or equivalent, or students transferring from other universities or colleges, who have successfully completed a course in the history of Western music, will be exempted from the first-year Western Musical Traditions requirement (MUHL 186).

MUHL 186	(3)	Western Musical Traditions
MUIN 180	(3)	BMus Practical Lessons 1
MUIN 181	(3)	BMus Practical Lessons 2
MUPD 135	(1)	Music as a Profession 1
MUPD 136	(1)	Music as a Profession 2
MUSP 140	(2)	Musicianship Training 1
MUSP 141	(2)	Musicianship Training 2
MUSP 170	(1)	Musicianship (Keyboard) 1
MUSP 171	(1)	Musicianship (Keyboard) 2
MUTH 150	(3)	Theory and Analysis 1
MUTH 151	(3)	Theory and Analysis 2

### Required Music Components (49 credits)

49 credits of required Music courses distributed as follows:

25 credits of Music Education

11 credits of Theory

4 credits of Musicianship

3 credits of Music History

6 credits of Performance

### Music Education

25 credits:

MUCT 235	(3)	Vocal Techniques
MUGT 215	(1)	Basic Conducting Techniques
MUGT 354	(3)	Music for Children
MUGT 358	(3)	General Music for Adults and Teenagers

MUGT 401	(3)	Issues in Music Education
MUIT 202	(3)	Woodwind Techniques
MUIT 203	(3)	Brass Techniques
MUIT 204	(3)	Percussion Techniques
MUIT 356	(3)	Jazz Instruction: Philosophy and Techniques

**Theory**

11 credits:

MUTH 250	(3)	Theory and Analysis 3
MUTH 251	(3)	Theory and Analysis 4
MUTH 350	(3)	Theory and Analysis 5
MUTH 461	(2)	Choral and Keyboard Arranging

**Musicianship**

4 credits:

MUSP 240	(2)	Musicianship Training 3
MUSP 241	(2)	Musicianship Training 4

**Music History**

3 credits:

MUHL 286	(3)	Critical Thinking About Music
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**Performance**

6 credits:

MUIN 280	(3)	BMus Practical Lessons 3
MUIN 281	(3)	BMus Practical Lessons 4
MUIN 283	(0)	BMus Concentration Final Examination

**Complementary Music Components (21 credits)**

21 credits of complementary Music courses distributed as follows:

9 credits of Music Education

2 credits of Musicianship

6 credits of Music History

4 credits of Performance

**Music Education**

3 credits, one of:

MUIT 201	(3)	String Techniques
MUIT 250	(3)	Guitar Techniques

3 credits, one of:

MUCT 315	(3)	Choral Conducting 1
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MUIT 315 (3) Instrumental Conducting

3 credits, select EDEA 362 or any course with a prefix of MUIT or MUGT.

EDEA 362 (3) Movement, Music and Communication

### Musicianship

2 credits from:

MUSP 324 (2) Musicianship for Strings  
MUSP 330 (2) Musicianship for Woodwinds  
MUSP 335 (2) Musicianship for Brass  
MUSP 346 (2) Post-Tonal Musicianship  
MUSP 350 (2) Musicianship for Pianists  
MUSP 353 (2) Musicianship for Voice  
MUSP 354 (2) Introduction to Improvisation and Ornamentation  
MUSP 355 (2) Musicianship for Percussion  
MUSP 381 (2) Singing Renaissance Notation

### Music History

6 credits of courses with a MUHL or a MUPP prefix

### Performance

4 credits from:

MUEN 563 (2) Jazz Vocal Workshop  
MUEN 572 (2) Cappella Antica  
MUEN 573 (2) Baroque Orchestra  
MUEN 587 (2) Cappella McGill  
MUEN 590 (2) McGill Winds  
MUEN 592 (2) Chamber Jazz Ensemble  
MUEN 593 (2) Choral Ensembles  
MUEN 594 (2) Contemporary Music Ensemble  
MUEN 597 (2) Orchestral Ensembles

### Electives (12 credits)

9 credits of free electives

3 credits of non-music electives

### Required Education Courses (45 credits)

EDEA 206 (1) 1st Year Professional Seminar  
EDEA 407 (3) Final Year Professional Seminar Music  
EDEA 442 (3) Methods in Music Education 1  
EDEA 472 (3) Methods in Music Education 2

EDEC 215(3)m1 270.56399m(t)559 3.256399m(t)559 256399m(t)559 270.56399m(t)559 270.56399m(t)559 BT/108.1 Tf1 0 0556392.949165.683 T993)



Montreal, QC H3A 1E3  
Telephone: 514-398-4546

Those who have completed a Bachelor of Music degree may apply for Advanced Standing in the Bachelor of Education in Music program in the Faculty of Education. Application to the Bachelor of Education in Music may be made online at [www.mcgill.ca/applying](http://www.mcgill.ca/applying). Information is available on that site or may be obtained from:

MATH 111	(3)	Mathematics for Education Students
RELG 207	(3)	The Study of World Religions 1

### Required Courses (78 credits)

EDEC 201	(1)	First Year Professional Seminar
EDEC 203	(3)	Communication in Education
EDEC 215	(0)	English Exam for Teacher Certification
EDEC 247	(3)	Policy Issues in Quebec Education
EDEC 253	(1)	Second Professional Seminar (Kindergarten/Elementary)
EDEC 262	(3)	Media, Technology and Education
EDEC 405	(3)	Fourth Year Professional Seminar (K/Elem)
EDEE 223	(3)	Language Arts
EDEE 230	(3)	Elementary School Mathematics 1
EDEE 250	(2)	The Kindergarten Classroom
EDEE 260	(3)	Reading Methods - Early Childhood
EDEE 270	(3)	Elementary School Science
EDEE 275	(2)	Science Teaching
EDEE 280	(3)	Geography, History and Citizenship Education
EDEE 282	(2)	Teaching Social Sciences
EDEE 325	(3)	Children's Literature
EDEE 332	(3)	Teaching Elementary Mathematics 2
EDEE 353	(3)	Teaching and Learning in the Elementary Classroom
EDEE 355	(3)	Classroom-based Evaluation
EDER 360	(2)	Ethics and Religious Culture (K/Elementary)
EDFE 200	(2)	First Field Experience (K/Elem & Secondary)
EDFE 256	(3)	Second Field Experience (Kindergarten/Elementary)
EDFE 306	(8)	Third Field Experience (Kindergarten/Elementary)
EDFE 406	(7)	Fourth Field Experience (K/Elem)
EDPE 300	(3)	Educational Psychology
EDPI 309	(3)	Diverse Learners
EDPI 341	(3)	Instruction in Inclusive Schools

### Complementary Courses (15 credits)

15 credits of courses selected as described below:

#### Multicultural Education

3 credits from:

EDEC 233	(3)	First Nations and Inuit Education
EDEC 248	(3)	Multicultural Education
EDEC 249	(3)	Global Education and Social Justice

#### Philosophy of Education

3 credits from:

EDEC 260	(3)	Philosophical Foundations
EDEC 261	(3)	Philosophy of Catholic Education

### **Ethics, Values, or Religion**

3 credits from:

EDER 309	(3)	The Religious Quest
RELG 204	(3)	Judaism, Christianity and Islam
RELG 207	(3)	The Study of World Religions 1
RELG 341	(3)	Introduction: Philosophy of Religion

### **Kindergarten and Elementary Teaching Methods - Art, Drama, or Music**

3-6 credits from:

EDEA 332	(3)	Art Curriculum and Instruction - Elementary
EDEA 342	(3)	Curriculum and Instruction in Drama Education
EDEA 345	(3)	Music Curriculum and Instruction for Generalists

### **Kindergarten & Elementary Teaching Methods - Physical Education or English Second Language**

0-3 credits from:

Students may select both their Methods courses from the list above for Art, Drama, or Music.

\* Note: Courses marked with an asterisk ("\*") have EDSL 350 "Essentials of English Grammar" as a prerequisite.

EDKP 332	(3)	Physical Education Curriculum and Instruction
EDSL 330*	(3)	Literacy 1:Teaching Reading in ESL
EDSL 447*	(3)	Methods in TESL 1

### **Kindergarten & Elementary Education - Subject Areas (21 credits)**

21 credits selected in consultation with the Program Adviser as follows:

12 credits in "teachable" subject area courses of the elementary school curriculum from the lists below for Art, English, Ethics and Religious Culture, French, Mathematics, Music, Natural Sciences, Physical Education, and Social Studies.

And

9 credits, 3 credits from each of any three subject areas not chosen above.

No more than 12 credits may be selected from any single course list.

Students may select up to 12 credits from this list and from Art History (ARTH) courses.

EDEA 204	(3)	Drawing
EDEA 205	(3)	Painting 2
EDEA 241	(3)	Basic Art Media for Classroom
EDEA 296	(3)	Basic Design
EDEA 304	(3)	Painting 3
EDEA 305	(3)	Painting 4
EDEA 307	(3)	Drawing 2
EDEA 410	(3)	Aesthetics and Art for the Classroom
EDEA 496	(3)	Sculpture 1

EDEA 497 (3) Sculpture 2

### English

Students may select up to 12 credits from this list.

\* Note: Starting with the 2009-2010 academic year, EDEE 325 Children's Literature is a required course for the Kindergarten and Elementary Education program and is included in the "Required Courses" list. Students admitted to the program in prior years may select this course as a teachable subject course for English.

CLAS 203	(3)	Greek Mythology
COMS 200	(3)	History of Communication
COMS 210	(3)	Introduction to Communication Studies
COMS 300	(3)	Media and Modernity in the 20th Century
COMS 310	(3)	Media and Feminist Studies
COMS 320	(3)	Media and Empire
COMS 330	(3)	Media in Cultural Life
EDEE 325*	(3)	Children's Literature
EDES 366	(3)	Literature for Young Adults
EDSL 350	(3)	Essentials of English Grammar
ENGL 200	(3)	Survey of English Literature 1
ENGL 201	(3)	Survey of English Literature 2
ENGL 215	(3)	Introduction to Shakespeare
ENGL 225	(3)	American Literature 1
ENGL 226	(3)	American Literature 2
ENGL 227	(3)	American Literature 3
ENGL 228	(3)	Canadian Literature 1
ENGL 229	(3)	Canadian Literature 2
ENGL 230	(3)	Introduction to Theatre Studies
ENGL 237	(3)	Introduction to Study of a Literary Form
ENGL 279	(3)	Introduction to Film as Art
ENGL 280	(3)	Introduction to Film as Mass Medium
ENGL 314	(3)	20th Century Drama
ENGL 345	(3)	Literature and Society
ENGL 347	(3)	Great Writings of Europe 1
ENGL 349	(3)	English Literature and Folklore 1
ENGL 386	(3)	Fans, Celebrities, Audiences
ENGL 388	(3)	Studies in Popular Culture
LING 200	(3)	Introduction to the Study of Language
LING 201	(3)	Introduction to Linguistics

### Ethics and Religious Culture

Students may select up to 12 credits from this list. Students may also choose other Religious Studies (RELG) courses with the permission of the Program Adviser.

\* Note: Courses marked with an asterisk ("\*") may be used as Ethics and Religious Culture courses or as Social Studies.

EDER 209	(3)	Search for Authenticity
EDER 252	(3)	Understanding and Teaching Jewish Life



EDER 309	(3)	The Religious Quest
EDER 394	(3)	Philosophy of God
EDER 395	(3)	Moral Values and Human Action
EDER 461	(3)	Society and Change
EDER 473	(3)	Living with Insight
EDER 494	(3)	Ethics in Practice
JWST 219 Period	(3)	Jewish Studies 1: Biblical Period

ATOC 181	(3)	Introduction to Atmospheric Science
ATOC 182	(3)	Introduction to Oceanic Sciences
ATOC 184	(3)	Science of Storms
ATOC 185	(3)	Natural Disasters
BIOL 115	(3)	Essential Biology
CHEM 180	(3)	World of Chemistry: Environment
CHEM 181	(3)	World of Chemistry: Food
CHEM 182	(3)	World of Chemistry: Technology
CHEM 183	(3)	World of Chemistry: Drugs
EDEE 473	(3)	Ecological Studies
EDEE 474	(3)	Problems of the Environment
EPSC 180	(3)	The Terrestrial Planets
EPSC 181	(3)	Environmental Geology
EPSC 185	(3)	Natural Disasters
EPSC 201	(3)	Understanding Planet Earth
PHYS 180	(3)	Space, Time and Matter
PHYS 181	(3)	Everyday Physics
PHYS 182	(3)	Our Evolving Universe
PHYS 183	(3)	The Milky Way Inside and Out

### Physical Education

Students may take up to 12 credits of Physical Education (EDKP) courses from the list with the permission of the Department of Kinesiology and Physical Education.

\* Note: EDKP 292 is available as an academic Physical Education course. All other EDKP courses are restricted.

EDKP 204	(3)	Health Education
EDKP 205	(3)	Structural Anatomy
EDKP 206	(3)	Biomechanics of Human Movement
EDKP 224	(3)	Foundations of Movement Education
EDKP 261	(3)	Motor Development
EDKP 292*	(3)	Nutrition and Wellness
EDKP 391	(3)	Physiology in Sport and Exercise
EDKP 495	(3)	Scientific Principles of Training
EDKP 498	(3)	Sport Psychology

### Social Studies

Students may take up to 12 credits from this list below which represents a balance of History (HIST), Geography (GEOG), and Citizenship courses offered by several departments. Anthropology (ANTH) and Sociology (SOCI) courses not on the list below may not be counted as Social Studies courses in the program requirements. Students may take them as electives only.

Students may select additional History courses as follows:

Any 3 credits in European History

Any 3 credits in Asian, African, or Latin American History

Any 3 credits in any topic or field of history

\* Note: Courses marked with an asterisk ("\*") may be used as Ethics and Religious Culture or Social Studies courses.

ANTH 202	(3)	Socio-Cultural Anthropology
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CANS 200	(3)	Introduction to the Study of Canada
CANS 310	(3)	Canadian Cultures: Context and Issues
GEOG 200	(3)	Geographical Perspectives: World Environmental Problems
GEOG 205	(3)	Global Change: Past, Present and Future
GEOG 210	(3)	Global Places and Peoples
GEOG 217	(3)	Cities in the Modern World
HIST 202	(3)	Survey: Canada to 1867
HIST 203	(3)	Survey: Canada since 1867
JWST 240*	(3)	The Holocaust
POLI 221	(3)	Government of Canada
POLI 222	(3)	Political Process and Behaviour in Canada
WMST 200*	(3)	Introduction to Women's Studies

### Electives (6 credits)

6 credits

Revision, June 2013. End of revision.

## 10.21 Bachelor of Education (B.Ed.) - Kindergarten and Elementary Education - First Nations and Inuit Studies (120 credits)

The Bachelor of Education (B.Ed.) - Kindergarten and Elementary Education - First Nations and Inuit Studies program requires 120 credits and leads to teacher certification. Interested applicants must contact the office of First Nations and Inuit Education for admission information; please call 514-398-4533.

Students who have not completed Quebec CEGEP, French Baccalaureate, International Baccalaureate, or at least one year of university studies prior to commencing the B.Ed. must also complete a minimum of 30 credits of freshman courses (in addition to the 120 credit program) for a total of 150 credits. Students who are admitted as "mature students" are not required to complete the 30 credits of Freshman courses. These students are admitted to U1.

Please note that graduates of teacher education programs are recommended by the University for Quebec Certification to the Quebec Ministère de l'Éducation, du Loisir et du Sport (MELS). For more information about teacher certification in Quebec, please refer to the Faculty of Education section under "Overview of Faculty Programs", "Undergraduate Education Programs", and "Quebec Teacher Certification".

### Freshman Program

Students normally complete 30 credits in their Freshman (U0) year.

The Freshman year is the time to take introductory-level courses in the subjects taught in Elementary school, as well as to explore areas that are not normally taken as teachable subject area courses within B.Ed. programs (e.g., Sociology, Psychology, Political Science, etc.).

Students admitted to the First Nations and Inuit Studies program in U0 should consult with their program adviser for guidance on course selection. More information is also found for neRes (in108redits)

EDEC 405	(3)	Fourth Year Professional Seminar (K/Elem)
EDEE 223	(3)	Language Arts
EDEE 230	(3)	Elementary School Mathematics 1
EDEE 250	(2)	The Kindergarten Classroom
EDEE 270	(3)	Elementary School Science
EDEE 275	(2)	Science Teaching
EDEE 280	(3)	Geography, History and Citizenship Education
EDEE 282	(2)	Teaching Social Sciences
EDEE 291	(3)	Cultural Values and Socialization
EDEE 325	(3)	Children's Literature
EDEE 332	(3)	Teaching Elementary Mathematics 2
EDEE 342	(3)	Intermediate Inuktitut/Amerindian Language
EDEE 344	(3)	Advanced Inuktitut/Amerindian Language
EDEE 353	(3)	Teaching and Learning in the Elementary Classroom
EDEE 355	(3)	Classroom-based Evaluation
EDER 360	(2)	Ethics and Religious Culture (K/Elementary)
EDFE 200	(2)	First Field Experience (K/Elem & Secondary)
EDFE 256	(3)	Second Field Experience (Kindergarten/Elementary)
EDFE 306	(8)	Third Field Experience (Kindergarten/Elementary)
EDFE 406	(7)	Fourth Field Experience (K/Elem)
EDKP 241	(3)	Aboriginal Physical Activities
EDKP 292	(3)	Nutrition and Wellness
EDPE 300	(3)	Educational Psychology
EDPI 309	(3)	Diverse Learners
EDPI 341	(3)	Instruction in Inclusive Schools
EDSL 247	(3)	Second Language Education in Aboriginal Communities
EDSL 305	(3)	L2 Learning: Classroom Settings
EDSL 447	(3)	Methods in TESL 1
RELG 207	(3)	The Study of World Religions 1

**Complementary Courses (12 credits)**

12 credits of courses selected as described below.

**Language - Complementary Component**

6 credits from the following language courses chosen according to language group and fluency:

**Algonquin**

EDEC 234	(3)	Algonquin Second Language 2
EDEE 293	(3)	Algonquin Second Language 1
EDEE 294	(3)	Algonquin Language 1
EDEE 295	(3)	Algonquin Language 2

**Cree**

EDEC 241	(3)	Cree Language 1
EDEC 242	(3)	Cree Language 2

### **Inuktitut**

EDEC 403	(3)	The Dialects of Inuktitut
EDEE 249	(3)	Inuktitut Orthography and Grammar

### **Mi'kmaq**

EDEC 237	(3)	Mi'kmaq Second Language 1
EDEC 238	(3)	Mi'kmaq Second Language 2
EDEC 239	(3)	Mi'kmaq Language 1
EDEC 240	(3)	Mi'kmaq Language 2

### **Mohawk**

EDEC 236	(3)	Mohawk Second Language 2
EDEE 296	(3)	Mohawk Second Language 1
EDEE 297	(3)	Mohawk Language 1
EDEE 298	(3)	Mohawk Language 2

### **Naskapi**

EDEC 227	(3)	Naskapi Language 1
EDEC 228	(3)	Naskapi Language 2

### **Media, Technology, Computers and Education - Complementary Component**

3 credits from:

EDEC 262	(3)	Media, Technology and Education
EDPT 200	(3)	Integrating Educational Technology in Classrooms
EDPT 204	(3)	Educational Media 1

### **Education - Complementary Component**

3 credits from:

EDEC 233	(3)	First Nations and Inuit Education
EDEC 248	(3)	Multicultural Education
EDEC 249	(3)	Global Education and Social Justice
EDPC 208	(3)	Native Families' Dynamics

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## **10.22 Bachelor of Education (B.Ed.) - Kindergarten and Elementary Jewish Studies (120 credits)**

**Revision, June 2013. Start of revision.**

Bachelor of Education (B.Ed.) - Kindergarten and Elementary Jewish Studies program requires 120 credits and leads to teacher certification. Students who have not completed Quebec CEGEP, French Baccalaureate, International Baccalaureate, or at least one year of university studies prior to commencing the B.Ed. must also complete a minimum of 30 credits of Freshman courses (in addition to the 120-credit program) for a total of 150 credits.

The Kindergarten and Elementary program leads to certification to teach children between the ages of 5 and 11 years (kindergarten and elementary school). The program consists of academic and professional courses, as well as studies in pedagogy and educational foundations. Each year of the program provides a school-based practicum.

The Jewish Studies option is addressed to students enrolled in the Kindergarten and Elementary program who wish to teach Jewish studies as well as general studies. Students are encouraged to acquire a strong background in Bible, Jewish prayer, Jewish holidays, and Jewish history prior to registering in the option. Students lacking the ability to teach in Hebrew should consider spending a semester at an Israeli university or seek other avenues to improve their language skills.

Please note that graduates of teacher education programs are recommended by the University for Quebec certification to the Quebec Ministère de l'Éducation, du Loisir et du Sport (MELS). For more information about teacher certification in Quebec, please refer to the Faculty of Education section under "Overview of Faculty Programs", "Undergraduate Education Programs," and "Quebec Teacher Certification."

### **Freshman Program**

Students normally complete 30 credits in their Freshman (U0) year.

The Freshman year is the time to take introductory-level courses in the subjects taught in elementary school, as well as to explore areas that are not normally taken as teachable subject area courses within B.Ed. programs (e.g., Sociology, Psychology, Political Science, etc.). Students should also investigate the possibility of taking one of the First Year Seminar courses offered by the Faculty of Arts or the Faculty of Science.

In addition, in consultation with the Program Adviser, students may select courses from the recommended course list below or other courses. Included in the list are several French Second Language (FRSL) courses for which placement tests are required to determine the appropriate level. Also recommended are any 100- or 200-le

EDEE 280	(3)	Geography, History and Citizenship Education
EDEE 282	(2)	Teaching Social Sciences
EDEE 325	(3)	Children's Literature
EDEE 332	(3)	Teaching Elementary Mathematics 2
EDEE 353	(3)	Teaching and Learning in the Elementary Classroom
EDEE 355	(3)	Classroom-based Evaluation
EDER 320	(3)	Visions and Realities of Jewish Education
EDER 360	(2)	Ethics and Religious Culture (K/Elementary)
EDFE 200	(2)	First Field Experience (K/Elem & Secondary)
EDFE 256	(3)	Second Field Experience (Kindergarten/Elementary)
EDFE 306	(8)	Third Field Experience (Kindergarten/Elementary)
EDFE 406	(7)	Fourth Field Experience (K/Elem)
EDPE 300	(3)	Educational Psychology
EDPI 309	(3)	Diverse Learners
EDPI 341	(3)	Instruction in Inclusive Schools
JWST 211	(3)	Jewish Studies 1: Biblical Period

### Complementary Courses (33 credits)

Teaching Methods (12 credits)

3 credits from:

EDEA 332	(3)	Art Curriculum and Instruction - Elementary
EDEA 342	(3)	Curriculum and Instruction in Drama Education
EDEA 345	(3)	Music Curriculum and Instruction for Generalists

9 credits from:

EDER 252	(3)	Understanding and Teaching Jewish Life
EDER 318	(3)	Teaching the Jewish Liturgy
EDER 319	(3)	Teaching the Holocaust
EDER 401	(3)	Teaching Biblical Literature - Jewish School 1

### Kindergarten and Elementary - Subject Area: Jewish Studies (18 credits)

In consultation with the Jewish Studies option Program Adviser, students select 18 credits from the undergraduate course offerings of the Department of Jewish Studies, Faculty of Arts.

### Electives (3 credits)

3 credits

Revision, June 2013. End of revision.

## 10.22.1 Bachelor of Education Kindergarten and Elementary Program (Jewish Studies Option)

Students who wish to follow this option must contact:

Professor Eric Caplan  
 Department of Integrated Studies in Education  
 Faculty of Education  
 Telephone: 514-398-6544

Email: [eric.caplan@mcgill.ca](mailto:eric.caplan@mcgill.ca)

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## **10.23 Bachelor of Education (B.Ed.) - Kindergarten and Elementary Pédagogie de l'Immersion Française (120 credits)**

### **Revision, June 2013. Start of revision.**

The Kindergarten and Elementary Pédagogie de l'Immersion Française major is designed to meet the needs of students enrolled in the B.Ed. Kindergarten and Elementary program who wish to teach in French immersion contexts. It consists of 30 credits of French and second language education courses embedded within the regular B.Ed. Kindergarten and Elementary program. In addition, certain other course sections may be offered in French.

### Competency in French

Students wishing to follow the Kindergarten and Elementary Pédagogie de l'Immersion Française major must demonstrate a sufficient level of competency in French by passing the written and oral French Language Proficiency Test (FLPT) set by the Department of Integrated Studies in Education. Students should contact [advisedise.education@mcgill.ca](mailto:advisedise.education@mcgill.ca) to indicate their desire to transfer into this major and will subsequently be contacted with a testing date.



EDSL 341*	(3)	Littérature et littérature jeunesse en FLS
EDSL 345	(3)	Enseignement du FLS-immersion
EDSL 444	(3)	Laboratoire d'enseignement en français langue seconde

\* Note: At least one of these Field Experiences must be completed in a French immersion setting.

\*\* Sections may be taken in French.

#### Kindergarten and Elementary Teaching Methods

EDSL 345	(3)	Enseignement du FLS-immersion
EDSL 444	(3)	Laboratoire d'enseignement en français langue seconde

### Complementary Courses (21 credits)

21 credits selected as described below:

#### Multicultural Education

3 credits from:

EDEC 233	(3)	First Nations and Inuit Education
EDEC 248	(3)	Multicultural Education
EDEC 249	(3)	Global Education and Social Justice

#### Philosophy of Education

3 credits from:

EDEC 260	(3)	Philosophical Foundations
EDEC 261	(3)	Philosophy of Catholic Education

#### Ethics and Religious Culture

3 credits from:

EDER 309	(3)	The Religious Quest
EDER 395	(3)	Moral Values and Human Action
EDER 473	(3)	Living with Insight
EDER 494	(3)	Ethics in Practice
RELG 207	(3)	The Study of World Religions 1

#### French

3 credits selected from:

EDSL 301	(3)	Étude de la langue
FREN 231	(3)	Linguistique française

9 credits selected from courses with a FREN prefix

### Elective Courses (6 credits)

The following courses are suggested:

EDEA 332	(3)	Art Curriculum and Instruction - Elementary
EDEA 342	(3)	Curriculum and Instruction in Drama Education

EDEA 345	(3)	Music Curriculum and Instruction for Generalists
EDKP 332	(3)	Physical Education Curriculum and Instruction
MATH 111	(3)	Mathematics for Education Students

**Revision, June 2013. End of revision.**

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**10.24 Bachelor of Education (B.Ed.) - Teaching French as a Second Language - TFSL - Joint Program with the Université de Montréal (120 credits)**

**Revision, July 2013. Start of revision.**

(No admission for 2013-2014)

The Bachelor of Education - Teaching French as a Second Language - Joint Program with the Université de Montréal (Baccalauréat en enseignement du français langue seconde) requires 120 credits and leads to teacher certification. Students who have not completed Quebec CEGEP, French Baccalaureate, International Baccalaureate, or at least one year of university studies prior to commencing the B.Ed. must also complete a minimum of 30 credits of Freshman courses (in addition to the 120-credit program) for a total of 150 credits.

This jointly of

EDSL 444	(3)	Laboratoire d'enseignement en français langue seconde
EDUM 215	(0)	Test de certification en français écrit
EDUM 245	(3)	Français écrit pour futurs enseignants
EDUM 262	(3)	Système éducatif - profession enseignante
EDUM 263	(3)	Apprentissage et développement
EDUM 264	(3)	Phonétique et phonologie
EDUM 265	(3)	Acquisition-apprentissage-langues secondes
EDUM 266	(3)	Mathématiques au primaire
EDUM 267	(3)	Didactique des arts plastiques 1
EDUM 268	(3)	Intégration des TIC
EDUM 269	(3)	École et environnement social
EDUM 270	(3)	Morphologie et syntaxe
EDUM 271	(3)	Lexique et sémantique
EDUM 341	(3)	Littératie et Littérature Jeunesse en FLS
EDUM 392	(3)	Gestion de classe en langues secondes
EDUM 393	(3)	Adolescent et expérience scolaire
EDUM 402	(3)	Évaluation en français langue seconde
EDUM 491	(3)	Didactique des mathématiques en langues secondes
EDUM 492	(3)	Didactique des sciences-technologies
FREN 251	(3)	Littérature française depuis 1800
FREN 252	(3)	Littérature québécoise

9 credits to increase the student's proficiency lev

EDUM 394 (1) Séminaire de stage-3e

11 credits, one of two sets of courses:

Either set:

EDFE 461 (9) Stage d'enseignement - immersion

EDSL 420 (2) Séminaire 4 professionnel

Or set:

Stage d'enseignement 2set:

studies prior to commencing the B.Ed. must also complete a minimum of 30 credits of Freshman courses (in addition to the 120-credit program) for a total of 150 credits.

The program includes studies in language and language learning from linguistic, literary, social, cultural, and psychological perspectives, accompanied by field experiences. It prepares students to teach English as a Second Language (ESL) at both the elementary school level (including regular and intensive ESL) and the secondary school level (including regular ESL and ESLA - English Second Language

EDPI 309	(3)	Diverse Learners
EDSL 210	(1)	First Professional Seminar
EDSL 215	(3)	Effective Communication in French
EDSL 254	(1)	Second Professional Seminar (TESL)
EDSL 300	(3)	Foundations of L2 Education
EDSL 304	(3)	Sociolinguistics and L2 Education
EDSL 305	(3)	L2 Learning: Classroom Settings
EDSL 311	(3)	Pedagogical Grammar
EDSL 315	(2)	Third Year Professional Seminar
EDSL 330	(3)	Literacy 1: Teaching Reading in ESL
EDSL 332	(3)	Literacy 2: Teaching Writing in ESL
EDSL 334	(3)	Teaching Oral Skills in ESL
EDSL 350	(3)	Essentials of English Grammar
EDSL 412	(3)	Assessment in TESL
EDSL 415	(3)	Fourth Professional Seminar
EDSL 447	(3)	Methods in TESL 1
EDSL 458	(3)	Methods in TESL 2

**Complementary Courses (33 credits)**

33 credits selected as described below:

3 credits from:

EDEC 233	(3)	First Nations and Inuit Education
EDEC 248	(3)	Multicultural Education
EDEC 249	(3)	Global Education and Social Justice

3 credits from:

EDEC 260	(3)	Philosophical Foundations
EDEC 261	(3)	Philosophy of Catholic Education

3 credits from:

EDEE 325	(3)	Children's Literature
EDES 366	(3)	Literature for Young Adults

3 credits from:

EDPI 341	(3)	Instruction in Inclusive Schools
EDPI 440	(3)	Managing the Inclusive Classroom

3 credits from:

LING 200	(3)	Introduction to the Study of Language
LING 201	(3)	Introduction to Linguistics

18 credits of English and other academic courses distributed as follows:

6-9 credits of English (ENGL) courses

And

9-12 credits of academic courses including

Foreign language courses (0-9 credits)

Academic courses (3-12 credits)

**Electives (6 credits)**

6 credits

**Revision, June 2013. End of revision.**

## 11 Programs for First Nations and Inuit

The following programs are offered in First Nations and Inuit communities for First Nations and Inuit teachers by the Faculty of Education.

Information may be obtained by contacting:

Faculty of Education  
First Nations and Inuit Education (FNIE)  
3700 McTavish Street, Room 244  
Montreal, Quebec H3A 1Y2

Telephone: 514-398-4533

Fax: 514-398-2553

Website: [www.mcgill.ca/dise](http://www.mcgill.ca/dise)

For details about the First Nations and Inuit Studies option within the Bachelor of Education Kindergarten and Elementary program, see [section 10.21: Bachelor of Education \(B.Ed.\) - Kindergarten and Elementary Education - First Nations and Inuit Studies \(120 credits\)](#).

### 11.1 Certificate in Education for First Nations and Inuit (60 credits)

**Revision, June 2013. Start of revision.**

This 60-credit program provides an opportunity for Algonquin, Cree, Inuit, Mi'kmaq, Mohawk, and Naskapi people to become qualified as teachers. It is offered on a part-time basis in Indigenous communities throughout Quebec in collaboration with, for example, the Cree School Board, the Kativik School Board and various Mi'kmaq, Mohawk, Algonquin and education authorities.

Quebec graduates of this program receive Quebec Ministère de l'Éducation, du Loisir et du Sport (MELS) certification to teach at the elementary school level in First Nations and Inuit schools.

On completion of the Certificate requirements, trainees may apply for admission to the Bachelor of Education - Kindergarten and Elementary Education - First Nations and Inuit Studies or Bachelor of Education for Certified Teachers program and consult the Program Adviser to determine Advanced Standing.

Time Limit

The time limit for completion of the 60-credit Certificate in Education for First Nations and Inuit is 12 years. The University reserves the right to request that a student retake a course or courses after a five-year period if it is felt that too long a break has occurred in the ongoing nature of the training.

The following program requirements are for all students except those specializing in teaching physical education.

**Required Courses (24 credits)**

EDEC 203	(3)	Communication in Education
EDEM 202	(3)	Native Family Dynamics & Supporting Institutions
EDPE 300	(3)	Educational Psychology
EDPI 341	(3)	Instruction in Inclusive Schools

12 credits of practicum courses:

EDEC 201	(1)	First Year Professional Seminar
EDEC 253	(1)	Second Professional Seminar (Kindergarten/Elementary)
EDFE 200	(2)	First Field Experience (K/Elem & Secondary)
EDFE 256	(3)	Second Field Experience (Kindergarten/Elementary)
EDFE 300	(5)	Aboriginal Education Field Experience

### **Complementary Courses**

36 credits selected as described below:

6 credits from the following language courses according to language group and fluency:

#### **Algonquin**

EDEC 234	(3)	Algonquin Second Language 2
EDEE 293	(3)	Algonquin Second Language 1
EDEE 294	(3)	Algonquin Language 1 Algonquin Language i86C0 li0lementary)



30 credits from the following:

In order to ensure appropriate choices, students select from the list of Complementary Courses in consultation with the Program Adviser.

EDEA 242	(3)	Cultural Skills 1
EDEC 243	(3)	Teaching: Multigrade Classrooms
EDEC 260	(3)	Philosophical Foundations
EDEC 262	(3)	Media, Technology and Education
EDEE 223	(3)	Language Arts
EDEE 230	(3)	Elementary School Mathematics 1
EDEE 245	(3)	Orientation to Education
EDEE 248	(3)	Reading and Writing Inuktitut/Cree
EDEE 250	(2)	The Kindergarten Classroom
EDEE 270	(3)	Elementary School Science
EDEE 275	(2)	Science Teaching
EDEE 280	(3)	Geography, History and Citizenship Education
EDEE 282	(2)	Teaching Social Sciences
EDEE 325	(3)	Children's Literature
EDEE 332	(3)	Teaching Elementary Mathematics 2
EDEE 355	(3)	Classroom-based Evaluation

**Revision, June 2013. End of revision.**

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## **11.2 Certificate in Education for First Nations and Inuit Physical Education (60 credits)**

**Revision, August 2013. Start of revision.**

This 60-credit program provides an opportunity for Algonquin, Cree, Inuit, Mi'kmaq, Mohawk, and Naskapi people to become qualified as physical education teachers. It is offered on a part-time basis in Indigenous communities throughout Quebec in collaboration with, for example, the Cree School Board, the Kativik School Board, and various Mi'kmaq, Mohawk, and Algonquin education authorities.

Quebec graduates of this program receive the Quebec Ministère de l'Éducation, du Loisir et du Sport (MELS) certification to teach at the elementary school level in First Nations and Inuit schools.

On completion of the Certificate requirements, trainees may apply for admission to the Bachelor of Education - Kindergarten and Elementary Education - First Nations and Inuit Studies or the Bachelor of Education for Certified Teachers program with up to 30 credits Advanced Standing.

**Time Limit**

The time limit for completion of the 60-credit Certificate in Education for First Nations and Inuit - Physical Education is 12 years. The University reserves the right to request that a student retake a course or courses after a five-year period if it is felt that too long a break has occurred in the ongoing nature of the training.

Students who specialize in teaching physical education follow the program requirements below.

### **Required Courses (24 credits)**

EDEC 203	(3)	Communication in Education
EDEM 202	(3)	Native Family Dynamics & Supporting Institutions
EDPE 300	(3)	Educational Psychology
EDPI 341	(3)	Instruction in Inclusive Schools

EDEC 253	(1)	Second Professional Seminar (Kindergarten/Elementary)
EDFE 200	(2)	First Field Experience (K/Elem & Secondary)
EDFE 256	(3)	Second Field Experience (Kindergarten/Elementary)
EDFE 300	(5)	Aboriginal Education Field Experience

**Complementary Courses (36 credits)**

36 credits selected as described below:

6 credits from the following language courses according to language group and fluency:

**Algonquin**

EDEC 234	(3)	Algonquin Second Language 2
EDEE 293	(3)	Algonquin Second Language 1
EDEE 294	(3)	Algonquin Language 1
EDEE 295	(3)	Algonquin Language 2

**Cree**

EDEC 241	(3)	Cree Language 1
EDEC 242	(3)	Cree Language 2

**Inuktitut**

EDEE 249	(3)	Inuktitut Orthography and Grammar
EDEE 342	(3)	Intermediate Inuktitut/Amerindian Language

**Mi'kmaq**

EDEC 237	(3)	Mi'kmaq Second Language 1
EDEC 238	(3)	Mi'kmaq Second Language 2
EDEC 239	(3)	Mi'kmaq Language 1
EDEC 240	(3)	Mi'kmaq Language 2

**Mohawk**

EDEC 236	(3)	Mohawk Second Language 2
EDEE 296	(3)	Mohawk Second Language 1
EDEE 297	(3)	Mohawk Language 1
EDEE 298	(3)	Mohawk Language 2

**Naskapi**

EDEC 227	(3)	Naskapi Language 1
EDEC 228	(3)	Naskapi Language 2

24 credits from the following:

In order to ensure appropriate choices, students select from the complementary list in consultation with the Program Adviser.

EDEC 243	(3)	Teaching: Multigrade Classrooms
EDEC 262	(3)	Media, Technology and Education
EDEE 223	(3)	Language Arts
EDEE 245	(3)	Orientation to Education
EDKP 204	(3)	Health Education
EDKP 224	(3)	Foundations of Movement Education
EDKP 241	(3)	Aboriginal Physical Activities
EDKP 292	(3)	Nutrition and Wellness
EDKP 307	(3)	Evaluation in Physical Education
EDKP 342	(3)	Physical Education Methods
EDKP 494	(3)	Physical Education Curriculum Development

6 credits from the following Physical Education courses:

EDKP 214	(1)	Basketball 1
EDKP 217	(2)	Track & Field / Cross Country
EDKP 218	(1)	Volleyball 1
EDKP 223	(2)	Games: Principles and Practice
EDKP 226	(1)	Quebec Education Program Orientation
EDKP 229	(1)	Ice Hockey 1
EDKP 240	(1)	Winter Activities

**Revision, August 2013. End of revision.**

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### **11.3 Admission to the Certificate in Education for First Nations and Inuit and to the Certificate in Education for First Nations and Inuit Physical Education**

Those intending to complete the programs offered in cooperation with the Kativik School Board must be fluent and literate in Inuktitut/Inuinnaqtun. Fluency in Algonquin, Cree, Mi'kmaq, Mohawk, or Naskapi is not a condition for acceptance for applicants from these communities, but is considered an asset. Courses are available in all four of these languages for those teaching in immersion classes and other teaching situations where a knowledge of the first language is essential.

An applicant will normally be employed as a teacher or as a classroom assistant, have a valid teaching authorization from the appropriate teaching authority or a community education committee, be recommended by the school principal and an officer of the education authority, be recommended by a local community education committee, and be at least 21 years of age. Younger applicants will be considered for admission if they hold a Grade 12 Secondary School Diploma or a Diploma of Collegial Studies. The right of final decision for acceptance of candidates rests with McGill.

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### **11.4 Certificate in Aboriginal Literacy Education (30 credits)**

This 30-credit program is designed for Algonquin, Cree, Inuit, Mi'kmaq, and Kanienkehaka (rscnd Kanienk

18 credits selected as described below.

### Language Courses

6 credits from the following language courses (or other courses as approved by the Director of Programs in First Nations and Inuit Education) including a beginning course (3 credits) in the Indigenous language as a first language (e.g., EDEC 241 Cree Language 1) and a second-level course (3 credits) in the same language (e.g., EDEC 242 Cree Language 2).

EDEC 227	(3)	Naskapi Language 1
EDEC 228	(3)	Naskapi Language 2
EDEC 239	(3)	Mi'kmaq Language 1
EDEC 240	(3)	Mi'kmaq Language 2
EDEC 241	(3)	Cree Language 1
EDEC 242	(3)	Cree Language 2
EDEE 249	(3)	Inuktitut Orthography and Grammar
EDEE 294	(3)	Algonquin Language 1
EDEE 295	(3)	Algonquin Language 2
EDEE 297	(3)	Mohawk Language 1
EDEE 298	(3)	Mohawk Language 2

### Education Courses

12 credits from the list below:

EDEA 242	(3)	Cultural Skills 1
EDEC 220	(3)	Curriculum Development
EDEC 403	(3)	The Dialects of Inuktitut
EDEE 223	(3)	Language Arts
EDEE 240	(3)	Use and Adaptation of Curricula
EDEE 243	(3)	Reading Methods in Inuktitut/Cree
EDEE 248	(3)	Reading and Writing Inuktitut/Cree
EDEE 345	(3)	Literature and Creative Writing 1
EDEE 346	(3)	Literature and Creative Writing 2
EDEE 348	(3)	Grammar and Composition 2
EDEE 373	(3)	Traditional Healing
EDEE 383	(3)	Oral and Family History
EDES 365	(3)	Experiences in Communications
EDPE 304	(3)	Measurement and Evaluation

### Electives (6 credits)

6 credits of suitable courses approved by the Director of Programs in First Nations and Inuit Education.

#### 11.4.1 Admission to the Certificate in Aboriginal Literacy Education

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## 11.5 Certificate in Middle School Education in Aboriginal Communities (30 credits)

This 30-credit program focuses on developing the particular skills and abilities required of the Indigenous teacher in the middle school of his/her community. It does not lead to provincial certification. Rather, it prepares Indigenous teachers, who are bilingual or have some knowledge of their Indigenous language and who have already established themselves as teachers, to teach students at this level in ways that are developmentally and culturally appropriate. The program focuses on the particular psychological, emotional, and social needs of Aboriginal adolescents and the teacher's role in facilitating the transition between elementary and high school.

This certificate may be taken concurrently and completed within the Bachelor of Education for Certified Teachers program if the requirements for the B.Ed. are fulfilled.

### Required Courses (15 credits)

EDEC 245	(3)	Middle School Teaching
EDEC 246	(3)	Middle School Curriculum
EDFE 210	(3)	Middle School Practicum
EDPE 377	(3)	Adolescence and Education

3 credits from the list below:

EDEC 302	(3)	Language and Learning - Curriculum
EDSL 305	(3)	L2 Learning: Classroom Settings

### Major Subject Area (6 credits)

6 credits in the major subject area of the Bachelor of Education for Certified Teachers selected in consultation with the Director of Programs in First Nations and Inuit Education.

### Minor Subject Area (6 credits)

6 credits in the minor subject area of the Bachelor of Education for Certified Teachers selected in consultation with the Director of Programs in First Nations and Inuit Education.

### Education Courses (3 credits)

3 credits from the list below or from other courses as approved by the Director of Programs in First Nations and Inuit Education.

EDEA 241	(3)	Basic Art Media for Classroom
EDEC 220	(3)	Curriculum Development
EDEC 243	(3)	Teaching: Multigrade Classrooms
EDEE 291	(3)	Cultural Values and Socialization
EDEE 444	(3)	First Nations and Inuit Curriculum
EDKP 241	(3)	Aboriginal Physical Activities
EDPT 200	(3)	Integrating Educational Technology in Classrooms
EDSL 247	(3)	Second Language Education in Aboriginal Communities
EDSL 305	(3)	L2 Learning: Classroom Settings

### 11.5.1 Admission to the Certificate in Middle School Education in Aboriginal Communities

Applicants will normally have completed or be completing their B.Ed. for Certified Teachers. It is strongly recommended that they have some competence in their Indigenous language as indicated by the successful completion of at least two language courses. For those applying with degrees from other universities, additional courses may be required to match the McGill B.Ed. for Certified Teachers profile. As the program and courses will be delivered in the partnership communities, applicants must be recommended by their school boj0 Tw1 0 0 1 67.52 eSc

**11.6 Certificate in First Nations and Inuit Educational Leadership (30 credits)**

This 30-credit program is designed for First Nations and Inuit organizations to develop their role as leaders within the educational community. The program will focus on developing the core competencies of educational leaders, e.g., decision making and problem solving; fostering a self-reflective leader able to partner with parents to create community outreach; cultivating awareness of the holistic learning and developmental cycles of a child and the role of the educational leader in enhancing that development; maintaining the continuity of community and cultural values and aspirations within the structure of the administration of the school and other educational milieu; and understanding and supporting the pedagogical objectives and the administrative framework of the educational system.

This certificate may be taken concurrently and completed within the Bachelor of Education for Certified Teachers if the requirements for the B.Ed. are fulfilled. It may also be followed concurrently with the Certificate in Education - First Nations and Inuit.

**Required Courses (15 credits)**

EDEC 221	(3)	Leadership and Group Skills
EDEC 222	(3)	Personnel Management and Support
EDEC 233	(3)	First Nations and Inuit Education
EDEC 311	(3)	Resource Management
EDEC 312	(3)	Practicum in Educational Leadership

**Complementary Courses (15 credits)**

15 credits from the list below or any other course approved by the Director of Programs in First Nations and Inuit Education.

EDEC 220	(3)	Curriculum Development
EDEC 244	(3)	Issues in Aboriginal Education
EDEE 240	(3)	Use and Adaptation of Curricula
EDEE 245	(3)	Orientation to Education
EDEE 340	(3)	Special Topics: Cultural Issues
EDEM 202	(3)	Native Family Dynamics & Supporting Institutions
EDES 365	(3)	Experiences in Communications
EDPI 341	(3)	Instruction in Inclusive Schools

**11.6.1 Admission to the Certificate in First Nations and Inuit Educational Leadership**

Students admitted to this program will be recommended by their communities. They must be mature students (21 years of age), or hold a Secondary V diploma or equivalent. Students must speak, read, and write fluently the language of instruction as agreed upon between the unit and the client School Board or Education Centre. For Nunavik applicants, students must have experience in a Nunavik educational or community organization. The right of final decision for acceptance of candidates rests with McGill.

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**11.7 Bachelor of Education for Certified Teachers — Elementary Education — Native and Northern (90 credits)**

This 90-credit program is designed for teachers who are already certified to teach in elementary schools and who wish to earn a Bachelor of Education degree. Normally, a minimum of 60 credits must be taken in the program, and no more than 30 credits may be transferred from other institutions. Credits may be transferred from programs leading to the certificates in Educational Technology, Second Language Teaching, Inclusive Education, or Aboriginal Literacy Education taken concurrently. Credit may also be transferred from the Certificate in Education for First Nations and Inuit, which is normally completed before the B.Ed. Students completing the Bachelor of Education for Certified Teachers following the Certificate in Education for First Nations and Inuit will have accumulated a total of 120 credits, 60 for the certificate and a further 60 for the B.Ed.

The Certificate in Aboriginal Literacy Education, the Certificate in Middle School Education in Aboriginal Communities, or the Certificate in First Nations and Inuit Educational Leadership may be taken concurrently and completed within the Bachelor of Education for Certified Teachers if the required B.Ed. profile is fulfilled.

This program does not lead to further certification.

**Complementary Courses**

Candidates enrolled in the program complete 90 credits within the following general pattern.

### **Academic Concentration (30 credits)**

30 credits in five (5) subject areas relevant to elementary education in a 12-9-3-3-3 pattern (i.e., 12 credits in one subject, 9 credits in a second subject, and 3 credits in each of three (3) other subject areas), or 30 academic credits in three subject areas in a 15-9-6 pattern.

Note: Subject areas relevant to elementary education, in broad terms, are the Arts (Art, Music and Drama), English, French, Science, Mathematics, Physical Education, Moral and Religious Education, Social Studies, Educational Technology, or an Aboriginal language.

### **Cultural Development (15 credits)**

15 credits of courses that will enhance the candidate's cultural development. These are to be chosen in consultation with the Director of Programs in First Nations and Inuit Education.

### **Education Concentration (30 credits)**

30 credits. Normally the Education concentration is completed within the Certificate in Education for First Nations and Inuit.

### **Electives (15 credits)**

15 credits selected by the candidate after consultation with the Director of Programs in First Nations and Inuit Education.

## **11.7.1 Admission Requirements for the B.Ed. for Certified Teachers**

Applicants apply on the basis of having completed the Certificate in Education for First Nations and Inuit or equivalent and must have the continued support of their education authority to attend the field-based program. The right of final decision for acceptance of candidates rests with McGill.

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## **11.8 Certificate in Aboriginal Education for Certified Teachers (30 credits)**

This 30-credit program provides training to assist mainstream teachers in becoming more effective teachers in First Nations and Inuit communities. It is designed to address subjects of particular interest and need in First Nations and Inuit schools, such as cultural socialization, cooperative learning, second-language teaching, and curriculum development.

### **Required Courses (18 credits)**

EDEC 220	(3)	Curriculum Development
EDEC 233	(3)	First Nations and Inuit Education
EDEE 240	(3)	Use and Adaptation of Curricula
EDEE 291	(3)	Cultural Values and Socialization
EDEE 444	(3)	First Nations and Inuit Curriculum
EDSL 247	(3)	Second Language Education in Aboriginal Communities

### **Complementary Courses (12 credits)**

12 credits selected as described below.

#### **Language**

3 credits of an introductory language course in the language of the community.

#### **Education**

9 credits of Education courses selected from the list below or any other suitable course approved by the Director of Programs in First Nations and Inuit Education.

EDEA 242	(3)	Cultural Skills 1
EDEC 200	(3)	Introduction to Inuit Studies
EDEE 290	(3)	Cooperative Learning
EDEM 202	(3)	Native Family Dynamics & Supporting Institutions





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## 12 Department of Kinesiology and Physical Education

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### 12.1 Location

Currie Gym  
475 Pine Avenue West  
Montreal, Quebec H2W 1S4

Telephone: 514-398-4184  
Fax: 514-398-4186  
Email: [kin.physed@mcgill.ca](mailto:kin.physed@mcgill.ca)  
Website: [www.mcgill.ca/edu-kpe](http://www.mcgill.ca/edu-kpe)

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### 12.2 About the Department of Kinesiology and Physical Education

The Department of Kinesiology and Physical Education offers one program leading to a B.Ed. degree, one program leading to a B.Sc. degree, and a Minor in Kinesiology for Science students.

The Department also offers programs at the graduate level leading to an M.A. and M.Sc., and possibilities for doctoral studies. For further information, see the most current *Programs, Courses and University Regulations* publication for Graduate and Postdoctoral Studies found at [www.mcgill.ca/study](http://www.mcgill.ca/study).

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### 12.3 Department of Kinesiology and Physical Education Faculty

Revision, August 2013. Start of revision.

#### Chair

René A. Turcotte

#### Director of Undergraduate Programs

Julie Côté

#### Director of Graduate Programs

David J. Pearsall

#### Professors

Ross E. Andersen; B.Ed., M.A.(McG.), Ph.D.(Temple) (*Canada Research Chair*)

Theodore E. Milner; B.Sc., M.Sc., Ph.D.(Alta.)

#### Associate Professors

Gordon Bloom; M.A.(W. Ont.), M.A.(York), Ph.D.(Ott.)

Julie Côté; B.Sc., M.Sc.(Wisc., Madison), Ph.D.(Montr.)

Enrique Garcia; B.P.E., I.N.E.F.(Madrid), M.Sc.(Laval), Ph.D.(Alta.)

William Harvey; B.Ed., M.A., Ph.D.(McG.)

Russell T. Hepple; B.Sc.(Sask.), M.Sc., Ph.D.(Tor.)

David J. Pearsall; B.A., B.P.H.E., M.Sc., Ph.D.(Qu.)

Dilson Rassier; B.P.E., M.Sc.(Brazil), Ph.D.(Calg.)

TRussell



EDFE 480	(7)	Fourth Field Experience (Physical Education)
EDKP 204	(3)	Health Education
EDKP 208	(3)	Biomechanics and Motor Learning
EDKP 213	(1)	Aquatics 1
EDKP 214	(1)	Basketball 1
EDKP 215	(0)	Standard First Aid/Cardio-Pulmonary Resuscitation Level C
EDKP 217	(2)	Track & Field / Cross Country
EDKP 218	(1)	Volleyball 1
EDKP 219	(1)	Healthy Lifestyle Activity
EDKP 223	(2)	Games: Principles and Practice
EDKP 225	(1)	Games: Principles and Practice 2
EDKP 226	(1)	Quebec Education Program Orientation
EDKP 233	(1)	Soccer
EDKP 252	(2)	Racquet Sports
EDKP 253	(1)	Educational Gymnastics
EDKP 254	(1)	Principles of Dance
EDKP 261	(3)	Motor Development
EDKP 292	(3)	Nutrition and Wellness
EDKP 293	(3)	Anatomy and Physiology
EDKP 307	(3)	Evaluation in Physical Education
EDKP 330	(3)	Physical Activity and Health
EDKP 342	(3)	Physical Education Methods
EDKP 391	(3)	Physiology in Sport and Exercise
EDKP 394	(3)	Historical Perspectives
EDKP 396	(3)	Adapted Physical Activity
EDKP 442	(3)	Physical Education Pedagogy
EDKP 443	(3)	Research Methods
EDKP 448	(3)	Exercise and Health Psychology
EDKP 494	(3)	Physical Education Curriculum Development
EDKP 498	(3)	Sport Psychology
EDPE 208	(3)	Personality and Social Development
EDPE 300	(3)	Educational Psychology

### Complementary Courses (10 credits)

10 credits selected as specified below:

#### Physical Activity

4 credits of Physical Activity courses (EDKP) offered by the Department of Kinesiology and Physical Education.

#### Multicultural Education

3 credits from:

EDEC 233	(3)	First Nations and Inuit Education
EDEC 248	(3)	Multicultural Education
EDEC 249	(3)	Global Education and Social Justice



One of the following Winter term MATH courses:

MATH 141	(4)	Calculus 2
MATH 151	(4)	Calculus B

One of the following Winter term PHYS courses:

PHYS 102	(4)	Introductory Physics - Electromagnetism
PHYS 142	(4)	Electromagnetism and Optics

### Required Courses (64 credits)

ANAT 315	(3)	Anatomy/Limbs and Back
ANAT 316	(3)	Human Visceral Anatomy
CHEM 212	(4)	Introductory Organic Chemistry 1
EDKP 206	(3)	Biomechanics of Human Movement
EDKP 215	(0)	Standard First Aid/Cardio-Pulmonary Resuscitation Level C
EDKP 250	(3)	Practicum 1
EDKP 261	(3)	Motor Development
EDKP 292	(3)	Nutrition and Wellness
EDKP 330	(3)	Physical Activity and Health
EDKP 350	(3)	Physical Fitness Evaluation Methods
EDKP 395	(3)	Exercise Physiology
EDKP 396	(3)	Adapted Physical Activity
EDKP 405	(3)	Sport in Society
EDKP 443	(3)	Research Methods
EDKP 447	(3)	Motor Control
EDKP 448	(3)	Exercise and Health Psychology
EDKP 450	(3)	Practicum 2
EDKP 485	(3)	Exercise Pathophysiology 1
EDKP 495	(3)	Scientific Principles of Training
EDKP 498	(3)	Sport Psychology
PHGY 209	(3)	Mammalian Physiology 1
PHGY 210	(3)	Mammalian Physiology 2

### Complementary Courses (12 credits)

12 credits selected as described below.

3 credits of Statistics from:

BIOL 373	(3)	Biometry
MATH 203	(3)	Principles of Statistics 1
PSYC 204	(3)	Introduction to Psychological Statistics
SOCI 350	(3)	Statistics in Social Research

9 credits from:

- (1) Weight Training

MATH 150 (4) Calculus A

In consultation with a program adviser, one of the following Fall term PHYS courses:

PHYS 101 (4) Introductory Physics - Mechanics

PHYS 131 (4) Mechanics and Waves

Winter term BIOL and CHEM courses:

BIOL 112 (3) Cell and Molecular Biology

CHEM 120 (4) General Chemistry 2

One of the following Winter term MATH courses:

MATH 141 (4) Calculus 2

MATH 151 (4) Calculus B

One of the following Winter term PHYS courses:

PHYS 102 (4) Introductory Physics - Electromagnetism

PHYS 142 (4) Electromagnetism and Optics

### Required Courses (70 credits)

In addition to the 61 credits of required courses for the Major, Honours students complete EDKP 453 "Research Practicum in Kinesiology" and EDKP 499 "Undergraduate Honours Research Project."

ANAT 315 (3) Anatomy/Limbs and Back

ANAT 316 (3) Human Visceral Anatomy

BIOL 200 (3) Molecular Biology

CHEM 212 (4) Introductory Organic Chemistry 1

EDKP 206 (3) Biomechanics of Human Movement

EDKP 215 (0) Standard First Aid/Cardio-Pulmonary Resuscitation Level C

EDKP 261 (3) Motor Development

EDKP 292 (3) Nutrition and Wellness

EDKP 330 (3) Physical Activity and Health

EDKP 394 (3) Historical Perspectives

EDKP 395 (3) Exercise Physiology

EDKP 396 (3) Adapted Physical Activity

EDKP 405 (3) Sport in Society

EDKP 443 (3) Research Methods

EDKP 447 (3) Motor Control

EDKP 448 (3) Exercise and Health Psychology

EDKP 453 (3) Research Practicum in Kinesiology

EDKP 485 (3) Exercise Pathophysiology 1

EDKP 495 (3) Scientific Principles of Training

EDKP 498 (3) Sport Psychology

EDKP 499	(6)	Undergraduate Honours Research Project
PHGY 209	(3)	Mammalian Physiology 1
PHGY 210	(3)	Mammalian Physiology 2

**Complementary Courses (15 credits)**

15 credits selected as described below.

3 credits of Statistics from:

BIOL 373	(3)	Biometry
MATH 203	(3)	Principles of Statistics 1
PSYC 204	(3)	Introduction to Psychological Statistics
SOCI 350	(3)	Statistics in Social Research

12 credits from:

BIOC 311	(3)	Metabolic Biochemistry
EDKP 311	(3)	Athletic Injuries
EDKP 444	(3)	Ergonomics
EDKP 445	(3)	Exercise Metabolism
EDKP 446	(3)	Physical Activity and Ageing
EDKP 449	(3)	Exercise Pathophysiology 2
EDKP 542	(3)	Environmental Exercise Physiology
EDKP 566	(3)	Advanced Biomechanics Theory
NUTR 344	(4)	Clinical Nutrition 1
NUTR 503	(3)	Bioenergetics and the Lifespan
PHGY 314	(3)	Integrative Neuroscience
POTH 434	(3)	Musculoskeletal Biomechanics
PSYC 471	(3)	Human Motivation

**Elective Courses (5 credits)**

To be chosen in consultation with the Program Director or Student Adviser.

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**13 School of Information Studies**

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**13.1 Location**

3661 Peel Street  
Montreal, Quebec H3A 1X1

Telephone: 514-398-4204

Fax: 514-398-7193

Email: [sis@mcgill.ca](mailto:sis@mcgill.ca)

Website: [www.mcgill.ca/sis](http://www.mcgill.ca/sis)



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## 13.2 About the School of Information Studies

The School of Information Studies focuses upon the knowledge and skills necessary to identify, acquire, organize, retrieve, and disseminate information so as to meet people's varied information needs.

The School of Information Studies offers four programs at the graduate level. Its 48-credit Master of Library and Information Studies (MLIS) has three areas of specialization: Archival Studies, Knowledge Management, and Librarianship. Accredited by the American Library Association, the MLIS program prepares professionals to manage information resources and services in libraries and the wider information industries. Its 30-credit Graduate Diploma in Library and Information Studies and 15-credit Graduate Certificate in Library and Information Studies are designed to provide a formal environment in which information professionals can update, specialize, and redirect their careers for advanced responsibilities. Its Ph.D. program provides an opportunity to undertake research at the doctoral level in library and information studies within an interdisciplinary context.

For further information concerning programs, requirements, and courses, consult the School of Information Studies section of the most current *Programs, Courses and University Regulations* publication for Graduate and Postdoctoral Studies available at [www.mcgill.ca/study](http://www.mcgill.ca/study) or the School [website](#).

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## 13.3 School of Information Studies Faculty

### Director

France Bouthillier

### Professor

Peter F. McNally; B.A.(W. Ont.), B.L.S., M.L.S., M.A.(McG.)

### Associate Professors

Joan Bartlett; B.Sc., M.L.S., Ph.D.(Tor.)

Jamshid Beheshti; B.A.(S. Fraser), M.L.S., Ph.D.(W. Ont.)

France Bouthillier; B.Ed.(UQAM), M.B.S.I.(Montr.), Ph.D.(Tor.)

Kim Dalkir; B.Sc., M.B.A.(McG.), Ph.D.(C'dia)

Catherine Guastavino; B.Sc.(McG.), M.Sc.(Aix-Marseille), Ph.D.(Paris)

Eun Park; B.A.(Pusan), M.L.I.S.(Ill.), M.B.A.(Pitt.), Ph.D.(Calif.-LA)

### Assistant Professors

Charles-Antoine Julien; B.Eng., M.Sc.(Montr.), Ph.D.(McG.)

Elaine Ménard; B.A., M.A., M.S.I., Ph.D.(Montr.)

Karyn Moffatt; B.A.Sc., M.Sc., Ph.D.(Br. Col.)

### Adjunct Professor

Joy Bennett; B.A., M.A.(C'dia), M.L.I.S.(McG.), Ph.D.(C'dia)

### Associate Members

Gordon Burr; B.A., M.L.I.S.(McG.)

Pierre Pluye; M.D.(Toulouse), M.Sc., Ph.D.(Montr.)

Richard Virr; B.A.(Tulane), M.A.(Qu.), Ph.D.(McG.)

### Affiliate Members

Charles Cole; B.A., M.L.I.S.(McG.), Ph.D.(Sheff.)

Frances Groen; B.A., B.L.S.(Tor.), M.A.(Pitt.)

### Part-time Instructors

Edward Bilodeau; B.Sc., M.L.I.S.(McG.)

Nathalie Blanchard; B.A., B.F.A.(C'dia), M.L.I.S.(McG.)

Heather Brydon; B.Ed.(Saint-Boniface), M.L.I.S.(McG.)

## Part-time Instructors

Louise Carpentier; B.L.S.(Tor.), M.Bibl.(Montr.), M.P.P.P.A.(C' dia)

Jonathan Dorey; B.A.(Montr.), M.L.I.S.(McG.)

Rhiannon Gainor; B.A.(Brigham Young), M.L.I.S./M.A.(Alta.)

Aleece Germano; B.A.(N. Hamp.)

Michele Jenkins; B.A.(Calif.-Santa Cruz), M.L.I.S.(McG.)

Rajiv Johal; B.Com., M.L.I.S.(McG.)

Nouf Khashman; B.A.(Al-Balqa' Univ.), M.L.I.S.(McG.)

Trudi Wright; B.A.(Brock), M.A.(Guelph), M.L.I.S.(McG.)