



**Faculty of Education**

**Programs, Courses and Univer**



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

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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 About the Faculty of Education (Undergraduate)

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### 4.1 Department of Integrated Studies in Education

The Department of Integrated Studies in Education (DISE) offers undergraduate programs that are committed to the preparation of exceptional teachers for work in elementary and secondary schools. We have four-year Bachelor of Education programs for CEGEP graduates and five-year programs for out-of-province students. In addition, we can accommodate students with completed or partly completed degrees in other disciplines.

The Department offers:

- Bachelor of Education Secondary English
  - Bachelor of Education Secondary Mathematics
  - Bachelor of Education Secondary Science & Technology
  - Bachelor of Education Secondary Social Sciences
  - Concurrent Bachelor of Music and Bachelor of Education in Music (Music Education)
  - Concurrent Bachelor of Science and Bachelor of Education (Secondary) (**New students are no longer being admitted to this program.**)
  - Bachelor of Education Kindergarten and Elementary Education
  - Bachelor of Education Kindergarten and Elementary Education First Nations and Inuit Studies
  - Bachelor of Education Kindergarten and Elementary Education Jewish Studies
  - Bachelor of Education Kindergarten and Elementary Pédagogie de l'immersion française (PIF) [French Immersion]
  - Bachelor of Education Teaching English as a Second Language
-

- Bachelor of Education Teaching French as a Second Language (**New students are no longer being admitted to this program.**)
- Programs for First Nations and Inuit

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## 4.2 Department of Educational and Counselling Psychology

The Department of Educational and Counselling Psychology (ECP) is committed to the advancement of scientific knowledge through research and practice in education and psychology. ECP addresses cognition and development in typical and atypical populations across the lifespan. Broadly speaking, researchers examine issues pertaining to assessment and interventions for children, youth, and adults in educational, clinical, and research settings. The Department is offering

The Department offers:

- Minor concentrations for undergraduate students

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## 4.3 Department of Kinesiology and Physical Education

The mission of the Department of Kinesiology and Physical Education (KPE) is to generate, advance, and disseminate knowledge about human health and physical activity, and to prepare professionals to engage in related employment.

The Department offers:

- Bachelor of Education Major in Physical and Health Education
- Bachelor of Science (Kinesiology) Major and Honours
- Minor in Kinesiology for Bachelor of Science students

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## 4.4 Location

3700 McTavish Street  
Montreal, Quebec H3A 1Y2  
Canada

Telephone: 514-398-7042

Fax: 514-398-4679

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

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## 4.5 Administrative Officers

### Dean

Hélène Perrault; B.Sc.(C'dia), M.Sc., Ph.D.(Montr.)

### Associate Deans

TBA (*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.(imiz D 148BT/Idemic)

### Unit Heads

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.)

### Student Affairs Officer

Joan Barrett

### Senior Advisor, Finance and Resource Planning

Genevieve Côté

### Building Director

Patricia Jackson

### Human Resources Adviser

Dina B. Medeiros

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## 5 Overview of Faculty Programs

The Faculty of Education offers three different kinds of programs.

### Undergraduate Programs:



*section 9.4.5: Baccalauréat en enseignement du français langue seconde (120 crédits) (B.Ed. TFSL)*, offered by the Department of Integrated Studies in Education jointly with the *Université de Montréal*.

**Note: The B.Ed. TFSL program is no longer accepting new students as of Fall 2011.**

*section 9.4.6: Bachelor of Education in Teaching English as a Second Language (120 crédits)*, offered by the Department of Integrated Studies in Education.

*section 11.4: Bachelor of Education (B.Ed.) - Physical and Health Education (120 crédits)*, offered by the Department of Kinesiology and Physical Education.

*section 9.4.2: Concurrent Bachelor of Music (Music Education)/Bachelor of Education in Music program (137 crédits)*, offered jointly by the Department of Integrated Studies in Education and the Schulich School of Music.

See also : *Concurrent Bachelor of Music (B.Mus.) - Major Music Education and Bachelor of Education (B.Ed.) - Music Elementary and Secondary (137 crédits)* under *Schulich School of Music*.

*section 9.4.3: Concurrent Bachelor of Science/Bachelor of Education (Secondary) (135 crédits)*, offered jointly by the Department of Integrated Studies in Education and the Faculty of Science.

**Note: The Concurrent B.Sc. and B.Ed. program is no longer accepting new students as of Fall 2012.**

A student who successfully completes any of the **above** programs, (and meets other requirements set out by the *Ministère de l'Éducation, du Loisir et du Sport (MELS)*) is recommended for certification as a teacher in the province of Quebec; see *section 5.1.3: Quebec Teacher Certification*.

*section 11.5: Bachelor of Science (Kinesiology) (B.Sc.(Kinesiology)) - Kinesiology (90 crédits)*, offered by the Department of Kinesiology and Physical Education.

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.

## 5.1.1 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.

### 5.1.1.1 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.

## 5.1.2 Credit Requirements

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**Department of Integrated Studies in Education**

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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## 6.1 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**

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## **6.6 Course and Program Regulations**

### **6.6.1 Course Load**

Undergraduate Education programs can normally be followed only on a full-time basis. Students must take a minimum of twelve (12) credits per term unless the Executive Director, Student Affairs gives

### **6.6.7 Courses Taken under Satisfactory/Unsatisfactory Option**

Required or complementary courses, including subject area courses for B.Ed. students, cannot be taken under this option. Please consult *Programs, Courses and University Regulations* > *University Regulations and Resources* > *Undergraduate* > : [Courses Taken under the Satisfactory/Unsatisfactory \(S/U\) Option](#).

### **6.6.8 Course Equivalencies and Overlap**

Students will not receive additional credit toward their degree for any course that is considered equivalent or that overlaps in content with a course for which they have already received credit at McGill, or any other institution. It is the student's responsibility to be aware of exclusion clauses specified in the course description in this publication and Minerva. Students should also refer to the following website for specific information about advanced standing credits and McGill course exemptions: [www.mcgill.ca/students/courses/plan/transfer](http://www.mcgill.ca/students/courses/plan/transfer), as well as the following website for Faculty-specific information: [www.mcgill.ca/edu-sao](http://www.mcgill.ca/edu-sao).

### **6.6.9 Dress Regulations**

All students enrolled in teacher certification programs are advised that school boards and individual schools may have regulations concerning acceptable attire. Students must adhere to any such regulations.

Students in Kinesiology and Physical Education programs are required to wear appropriate clothing for activity courses as approved by the instructor(s). Students may also be responsible for pro

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## **6.8 Attendance**

The class attendance necessary to satisfy course requirements varies from course to course. All students are expected to apprise themselves of and meet course-specific requirements.

Attendance is particularly critical in B.Ed. programs, as these are designed to develop required professional competencies, which prepare students for the demands of the teaching profession. Students must therefore inform themselves of, and adhere to, the attendance requirements for all Education courses. Special attention should be paid to the requirements of intensive courses and professional seminars scheduled around Field Experiences. Unexcused absences may result in exclusion from a course, course failure, and/or removal from any associated Field Experience.

For Field Experiences, punctual attendance is required throughout. Absences are only excused in e

### 6.11.3 Reassessment of Course Work



### **6.12.2.3 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

Students with Incomplete Standings in the Winter or Summer term may register for the Fall term, but their Standing must be resolved by the end of the term.

## 7 Student Teaching/Field Experience

The **Office of Student Teaching (OST)**, [www.mcgill.ca/ost](http://www.mcgill.ca/ost), is responsible for arranging the placement and evaluation of all student teachers in supervised Field Experiences.

### 7.1 Field Experiences

Field Experiences:

- are required courses (with the subject code EDFE) for all students in B.Ed. programs from first through fourth year;
- are the sole responsibility of the Faculty of Education and are organized by the Office of Student Teaching. Under no circumstances should students make their own placement arrangements;
- must be taken in the required sequence;
- require that newly admitted and returning students follow registration procedures (see [section 6.7: Registration](#)) or risk not being placed in a host school;
- are completed in schools within anglophone school boards in the province of Quebec in the majority of cases, with the exception of the B.Ed. TESL program Field Experiences, which take place in schools within francophone school boards in the province of Quebec;
- can be specialized in some circumstances. Refer to the OST website for information regarding such opportunities (distance, special needs, resource room, adult education, etc.);
- could require that students travel some distance to their host school and students should therefore budget time and money for this purpose;
- may begin before the first day of lectures or end after the last day of lectures;
- may continue during the University-scheduled Study Break in the Winter term;
- may continue through May into the Summer term (refer to the OST website or Minerva for exact dates).

### 7.2 Registration

#### 7.2.1 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.

#### 7.2.2 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 any of these requirements will be removed from their field placement. (See [section 7.4.1: Termination of Field Experience](#).)
- in B.Ed. K/Elementary, Secondary, and TESL programs who wish to transfer within these programs will not be required to repeat Field Experience 1.

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### **7.3 Student Responsibilities**

Students are responsible for familiarizing themselves with the policies and rules gov

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 T

1. The Code addresses the interdependent duties, rights, and responsibilities of student teachers, faculty members, and educational partners.
2. By addressing common issues and needs, the Code seeks to articulate and make explicit ethical principles that transcend disciplinary boundaries. These principles reflect the fundamental values that are expressed in the duties, rights, and responsibilities of all involved in Teacher Education.
3. The Code requires a reasonable flexibility in the implementation of common principles. It is designed to help those involved in Teacher Education, as a matter of sound ethical reasoning, to understand and respect the contexts in which they work and accommodate the needs of others.
4. The Code seeks to encourage continued reflection and thoughtful response to ethical issues. It does not seek definitive answers to all ethical questions or situations. Rather, it seeks to outline the guiding principles to ethical conduct and to identify major issues that are essential to the development and implementation of this Code.

- **Context of an Ethics Framework for Student Teachers**

The principles and norms guiding ethical conduct are developed within an ever-evolving complex societal context, elements of which include the need for reflective action and ethical principles.

Education is premised on a fundamental moral commitment to advance and construct knowledge and to ensure human understanding and respect for individual and collective well-being and integrity.

The moral imperative of respect translates into the following ethical principles that assume a student-centred perspective as articulated in the Quebec Curriculum Reform and Competencies outlined for Teacher Education.

### 7.5.2 Academic Freedom and Responsibilities

Teachers enjoy, and should continue to enjoy, important freedoms and privileges. However, with freedoms come responsibilities and ethical challenges. This Code of Ethics is in keeping with the philosophy and spirit of the New Directions that are embedded in the document “Teacher Training: Orientations, Professional Competencies” (MEQ 2001) and the reflective practice literature.

The role of the teacher and the contexts of teaching have changed. Thus, new resources (knowledge, skills, attitudes) are required to practice the profession and to meet the challenges of teaching and learning in whatever contexts student teachers may find themselves, and to engage in professional development individually and with others.

### 7.5.3 Ethics and Law

“Teaching is governed by a legal and regulatory framework” (MEQ 2001, p. 120). The law affects and regulates the standards and norms of teaching behaviours in a variety of ways such as respecting privacy, confidentiality, intellectual property, and competence. Human rights legislation prohibits discrimination and recognizes equal treatment as fundamental to human dignity and well-being. Teachers should respect the spirit of the Canadian Charter of Rights and Freedoms, particularly the sections dealing with life, liberty, and the security of the person, as well as those involving equality and discrimination and the Education Act that sets out the obligations and rights of teachers.

### 7.5.4 Guiding Ethical Principles

Ethical student teachers should respect the following guiding ethical principles:

1. **Respect for Human Dignity**
  - Speaks and acts toward all students with respect and dignity; and deals judiciously with them at all times, always mindful of their individual rights and personal sensibilities.
  - Respects the dignity and responsibilities of cooperating teachers, peers, principals, parents, and other professionals or para-professionals within the school, school board, and community.
2. **Respect for Vulnerable Persons**
  - Respects and recognizes ethical obligations toward vulnerable persons. This principle recognizes that students are in a vulnerable position and that student teachers are in a privileged relationship with students and their families and will always refrain from exploiting that relationship in any form or manner.
3. **Respect for Confidentiality and Privacy**
  - Respects the confidential nature of all information related to students and their families and will share such information in an appropriate manner only with those directly concerned with their welfare.
  - Respects the confidential nature of all information related to all school personnel and will share such information in an appropriate manner.
4. **Respect for Justice**
  - Respects and recognizes the right of individuals to be treated with fairness and equity and the importance of avoiding conflicts of interest.
5. **Respect for Safety of Students**
  - Respects the right of individuals to expect that student teachers will engage in practices that aim to ensure the physical, psychological, and emotional safety of students.

**6. Respect for Existing Ethical Codes and Professional Standards**

- Respects the authority, roles, and responsibilities of the cooperating teacher, and agrees to adhere to the responsibilities and obligations for teachers as outlined in the Education Act, Faculty, and Uni





**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

Helen-Maria Vasiliadis

Harold Wynne

**Research Associates**

Rina Gupta

Jasvinder Magon

Diana Tabatabai

Laura Winer

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## 9 Department of Integrated Studies in Education

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### 9.1 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

## 9.2 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).

## 9.3 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

### Director of Graduate Programs

Lise Winer

### Emeritus Professors

Patrick X. Dias; B.A., M.A.(Karachi), B.Ed., Ph.D.(Montr.)

Thomas A. Francoeur; B.A., Lic.Ped., D.Ed.(Montr.), M.A.(Ott.), Dip.Past.Theol.(Brussels)

Margaret Gillett; B.A., Dip.Ed.(Syd.), M.A.(Russell Sage), Ed.D.(Col.) (*William C. Macdonald Emeritus Professor of Education*)

John B. Gradwell; B.A., M.A.(Calif.), Ph.D.(Iowa)

Norman Henchey; B.A., B.Ped., Lic.Ped.(Montr.), Ph.D.(McG.)

Denise Lussier; B.A.(Coll. Jésus-Marie de Sillery), M.Ed.(Boston), M.A., Ph.D.(Laval) (*Post-retirement*)

Jacques J. Rebuffot; B.ès L., L.ès L., D.E.S.(Aix-Marseille), Dip. I.E.P., Dr. 3rd Cy.(Strasbourg)

Bernard Shapiro; B.A.(McG.), M.A.T., Ed.D.(Harv.)

David C. Smith; B.Ed., M.A.(McG.), Ph.D.(Lond.), F.C.C.T., F.R.S.A.

R. Lynn Studham; N.D.D.(Sunderland), A.R.A.(Royal Acad., Copen.), M.A.(E. Carolina), C.S.G.A., S.C.A.

John R. Wolforth; B.Sc.(Sheff.), M.A., Ph.D.(Br. Col.)

### Professors

Lynn Butler-Kisber; B.Ed., M.Ed.(McG.), Ed.D.(Harv.)

David Dillon; B.A.(St. Columban's), M.S.(SW Texas St.), Ph.D.(Texas)

Ratna Ghosh; C.M., B.A.(Calc.), M.A., Ph.D.(Calg.) F.R.S.C. (*William C. Macdonald Professor of Education*) (*James McGill Professor*)

Barry Levy; B.A., M.A., BRE(Yeshiva), Ph.D.(NYU)

Roy Lyster; B.A.(Regina), M.A.(Paris VII), B.Ed., M.Ed., Ph.D.(Tor.)

Mary H. Maguire; B.A., B.Ed., M.A.(Montr.), M.Ed., Cert. Reading(McG.), Ph.D.(Ariz.)

Claudia A. Mitchell; B.A.(Bran.), M.A.(Mt. St. Vin.), Ph.D.(Alta.) (*James McGill Professor*)

Anthony Paré; B.Ed., M.Ed., Ph.D.(McG.)

Ralf St. Clair; Dipl.(Moray House), M.Sc.(Heriot-Watt), Ph.D.(Br. Col.)

Lise Winer; B.A.(Pitt.), M.A.(Minn.), Cert. Ped.(C'dia), Ph.D.(West Indies)



#### 9.4.1 Bachelor of Education: Secondary Program (120 credits)

The aim of the B.Ed. Secondary program is to prepare strong beginning teachers for the secondary school level. This integrated 120-credit program (150 credits for out-of-province students) consists of academic studies to provide background depth in subjects taught in the secondary school, professional studies centred on school-based practicum, supported by studies in pedagogy, curriculum, and educational foundations. Students choose their teaching profiles from: English, Mathematics, Science and Technology, and Social Sciences (History and Citizenship, and one of Geography or Ethics and Religious Culture). Students applying to the B.Ed. Secondary in the areas of Mathematics or Science and Technology, depending on their academic record, may be required to complete additional courses in order to gain the appropriate subject area background.

#### 9.4.2 Concurrent Bachelor of Music (Music Education)/Bachelor of Education in Music program (137 credits)

This program provides students with the opportunity to obtain a Bachelor of Music degree and a Bachelor of Education degree concurrently. The two degrees are awarded during the same convocation period. Students who have completed Quebec CEGEP, French Baccalaureate, International Baccalaureate, or at least one year of university studies are normally enrolled in a program requiring the completion of 137 credits.

#### 9.4.3 Concurrent Bachelor of Science/Bachelor of Education (Secondary) (135 credits)

**New students are no longer being admitted to this program.**

This program provides students with the opportunity to attain a Bachelor of Science degree and a Bachelor of Education degree concurrently. The two degrees are awarded during the same convocation period. Students who have completed Quebec CEGEP, French Baccalaureate, International Baccalaureate, or at least one year of university studies are normally enrolled in a program requiring the completion of 135 credits.

#### 9.4.4 Bachelor of Education (Kindergarten and Elementary) (120 credits)

This program leads to certification to teach children between the ages of five and 11 years. It consists of four years of full-time study requiring the completion of 120 credits (150 credits or five years for out-of-province students) of academic and professional courses.

Options within the B.Ed. (Kindergarten and Elementary) program are:

- First Nations and Inuit Studies
- Jewish Studies
- Pédagogie de l'immersion française

#### 9.4.5 Baccalauréat en enseignement du français langue seconde (120 credits) (B.Ed. TFSL)

**New students are no longer being admitted to this program as of Fall 2011.**

This four-year program (normally 120 credits or four years for students who have completed Quebec CEGEP, French Baccalaureate, International Baccalaureate, or at least one year of university studies) prepares specialist teachers to teach French as a second language, in Core French programs, immersion programs, intensive programs, and *classes d'accueil*, at both the elementary and the secondary levels. Offered by the Department of Integrated Studies in Education jointly with the *Université de Montréal* ([www.mcgill.ca/dise/progs/tfsl/current](http://www.mcgill.ca/dise/progs/tfsl/current)).

#### 9.4.6 Bachelor of Education in Teaching English as a Second Language (120 credits)

This program prepares specialist teachers to teach English as a second language at both the elementary level (including regular and intensive ESL) and the secondary level (including regular ESL and ESLA – English Second Language Arts). This integrated 120-credit program (150 credits for out-of-province students) consists of academic and professional components. The academic components provide students with opportunities to develop a broad liberal education and to study language and language learning from linguistic, social, cultural, and psychological perspectives. The professional components revolve around school-based Field Experiences, which are supported by studies in pedagogy and educational foundations.

#### 9.4.7 Graduate Programs

At the graduate level, the Department offers M.A. programs with thesis and non-thesis options in the following areas: Education and Society, Educational Leadership, and Second Language Education.

The Department offers a Master of Arts in Teaching and Learning (MATL), leading to teacher certification at the secondary level for those meeting specific criteria. See [www.mcgill.ca/dise/progs/matl/prospective](http://www.mcgill.ca/dise/progs/matl/prospective).

The Department also offers graduate certificates in Leadership and Teaching English as a Second Language. See [www.mcgill.ca/dise/grad](http://www.mcgill.ca/dise/grad).

#### 9.4.8 In-Service Programs

The Department of Integrated Studies in Education offers a number of in-service programs through First Nations and Inuit Education: a Certificate in Education for First Nations and Inuit; a Certificate in Aboriginal Literacy Education; a Certificate in Middle School Education in Aboriginal Communities;

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a Certificate in First Nations and Inuit Educational Leadership; a Certificate in Aboriginal Education for Certified Teachers; a Certificate in First Nations and Inuit Student Personnel Services; and a Bachelor of Education for Certified Teachers.

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## 9.5 Bachelor of Education (B.Ed.) - Secondary English (120 credits)

The Bachelor of Education (B.Ed.) - Secondary English 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 academic studies, professional studies, and school-based practicum components. All of this is supported by studies in pedagogy, curriculum, and educational foundations.

The Secondary English program provides students with the learning opportunities needed to become proficient English teachers.

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 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 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. The list includes English literature courses that may be used toward the academic component of the Secondary English course requirements. Also included are several French Second Language (FRSL) courses for which placement tests are required to determine the appropriate level.

CEAP 250*	(3)	Research Essay & Rhetoric
EDEC 203*	(3)	Communication in Education
EDEM 220	(3)	Contemporary Issues in Education
ENGL 201	(3)	Survey of English Literature 2
ENGL 215	(3)	Introduction to Shakespeare
ENGL 226	(3)	American Literature 2
FRSL 101D1	(3)	Beginners French
FRSL 101D2	(3)	Beginners French
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
RELG 207	(3)	The Study of World Religions 1

### Required Courses (45 credits)

EDEC 201	(1)	First Year Professional Seminar
EDEC 215	(0)	English Language Requirement
EDEC 247	(3)	Policy Issues in Quebec Education
EDEC 254	(1)	Second Professional Seminar (Secondary)
EDEC 351	(2)	Third Professional Seminar (Secondary)
EDEC 404	(3)	Fourth Year Professional Seminar (Sec)
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)	Exceptional Students
EDPI 341	(3)	Instruction in Inclusive Schools

**Complementary Courses (15 credits)**

15 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

**Media, Technology, Computers and Education**

3 credits from:

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

**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
EDSL 305	(3)	L2 Learning: Classroom Settings
EDSL 350	(3)	Essentials of English Grammar
LING 200	(3)	Introduction to the Study of Language
LING 201	(3)	Introduction to Linguistics
LING 355	(3)	Language Acquisition 1

\*Note: Students may take either CEAP 250 OR EDEC 203 for credit but not both

### Complementary Courses

45 credits selected from the English Department undergraduate complementary course list ([www.mcgill.ca/english/undergrad/complementary-courses/](http://www.mcgill.ca/english/undergrad/complementary-courses/)) distributed as follows (including at least one course in Shakespeare):

#### Literature (33 credits)

A minimum of 15 credits must be at the 300 level or higher

#### Cultural Studies (9 credits)

At least 3 credits must be at the 300 level or higher

#### Drama/Theatre (3 credits)

#### Option 2 (54 credits)

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)

Select 6 credits from the following course list:

CEAP 250*	(3)	Research Essay & Rhetoric
EDEC 203*	(3)	Communication in Education
EDSL 305	(3)	L2 Learning: Classroom Settings
EDSL 350	(3)	Essentials of English Grammar
LING 200	(3)	Introduction to the Study of Language
LING 201	(3)	Introduction to Linguistics
LING 355	(3)	Language Acquisition 1

\*Note: Students may take either CEAP 250 OR EDEC 203 for credit but not both

### Complementary Courses

27 credits selected from the English Department undergraduate complementary course list ([www.mcgill.ca/english/undergrad/complementary-courses/](http://www.mcgill.ca/english/undergrad/complementary-courses/)), distributed as follows (including at least one course in Shakespeare):

#### Literature (18 credits)

A minimum of 6 credits at the 300 level or higher.

#### Cultural Studies (6 credits)

A minimum of 3 credits at the 300 level or higher

#### Drama/Theatre (3 credits)

**Second "Teachable" Subject Area (18 credits)**

18 credits of designated courses in a second "teachable" subject area (e.g., Mathematics, Social Sciences, Science courses, selected in consultation with an advisor).

Students must also take the corresponding 3 credits of Secondary Teaching Methods in for the second "teachable" subject area

Note: this additional Methods course counts as a 3 credit elective in the program.

**English as Second "Teachable" Subject Area (18 credits)**

Students in the Secondary Mathematics program who select English as their second "teachable" subject area follow the requirements below:

**Required Course (3 credits)**

EDES 366                      (3)                      Literature for Young Adults



Students in the Secondary Mathematics program must complete three Math prerequisite courses in their Freshman year, MATH 133, MATH 140, and MATH 141.

In addition, students select courses from the recommended list below or other courses in consultation with the Program Adviser. The French Second Language (FRSL) courses suggested require a placement test to determine the appropriate course level.

CEAP 250	(3)	Research Essay & Rhetoric
EDEM 220	(3)	Contemporary Issues in Education
FRSL 101D1	(3)	Beginners French
FRSL 101D2	(3)	Beginners French
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
MATH 133	(3)	Linear Algebra and Geometry
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 (45 credits)

EDEC 201	(1)	First Year Professional Seminar
EDEC 215	(0)	English Language Requirement
EDEC 247	(3)	Policy Issues in Quebec Education
EDEC 254	(1)	Second Professional Seminar (Secondary)
EDEC 351	(2)	Third Professional Seminar (Secondary)
EDEC 404	(3)	Fourth Year Professional Seminar (Sec)
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)	Exceptional Students
EDPI 341	(3)	Instruction in Inclusive Schools

#### Complementary Courses (15 credits)

15 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

### **Media, Technology, Computers and Education**

3 credits from:

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

### **Secondary Teaching Methods - Mathematics**

6 credits:

Note: Students selecting 18 credits of Secondary Mathematics courses as their other "teachable" subject will take 3 credits of Mathematics Secondary Teaching Methods courses to count as an elective in their program.

EDES 353	(3)	Teaching Secondary Mathematics 1
EDES 453	(3)	Teaching Secondary Mathematics 2

**Secondary Mathematics Subject Ar8 c4 (54425.25 T9(EDES 353)Tj1 0 0 1 2P1 221.949 686.0 0 4ondar628 162.924ondarv0 1 105.426 280.544**

27 credits for Secondary Mathematics Option 1 and Option 2 students

Note: Students with Mathematics as their "other teachable subject area" select from the list of "Mathematics Courses for Students in Other Secondary Subject Areas".

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 from the list below for Secondary Mathematics Option 1 students or

9 credits from the list below for Secondary Mathematics Option 2 students

Note: Students with Mathematics as their "other teachable subject area" select from the list of "Mathematics Courses for Students in Other Secondary Subject Areas".

COMP 202	(3)	Foundations of Programming
COMP 230	(3)	Logic and Computability
EDTL 520	(3)	Perspectives on Knowledge in Mathematics and Science
MATH 236	(3)	Algebra 2
MATH 243	(3)	Analysis 2
MATH 314	(3)	Advanced Calculus
MATH 316	(3)	Complex Variables
MATH 317	(3)	Numerical Analysis
MATH 318	(3)	Mathematical Logic
MATH 319	(3)	Introduction to Partial Differential Equations
MATH 326	(3)	Nonlinear Dynamics and Chaos
MATH 327	(3)	Matrix Numerical Analysis
MATH 329	(3)	Theory of Interest
MATH 340	(3)	Discrete Structures 2
MATH 346	(3)	Number Theory
MATH 417	(3)	Mathematical Programming
MATH 423	(3)	Regression and Analysis of Variance
MATH 447	(3)	Introduction to Stochastic Processes
MATH 523	(4)	Generalized Linear Models
MATH 524	(4)	Nonparametric Statistics
MATH 525	(4)	Sampling Theory and Applications

### Mathematics Courses for Students in Other Secondary Subject Areas

Students in other secondary subject areas selecting Mathematics as their "other teachable subject area" take the following 18 credits.

MATH 222	(3)	Calculus 3
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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 (45 credits)**

EDEC 201	(1)	First Year Professional Seminar
EDEC 215	(0)	English Language Requirement
EDEC 247	(3)	Policy Issues in Quebec Education
EDEC 254	(1)	Second Professional Seminar (Secondary)
EDEC 351	(2)	Third Professional Seminar (Secondary)
EDEC 404	(3)	Fourth Year Professional Seminar (Sec)
EDES 350	(3)	Classroom Practices (Secondary)
EDFE 200	(2)	First Field Experience (K/Elem & Secondary)
		Second Field Experience (Secondary)

**Secondary Teaching Methods - Social Sciences**

6 credits:

EDER 372	(3)	Ethics and Religious Culture (Secondary)
EDES 334	(3)	Teaching Secondary Social Studies 1

**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:

36 credits of History and Citizenship courses distributed as follows:

9 credits of "Required History" courses

and

27 credits "Complementary History" distributed as follows:

3-9 credits in European History

3-9 credits in Asian, African, American, Latin American, or Ancient History

9 credits at the 300 or 400 level 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.)

And

18 credits chosen from the Ethics and Religious Culture course list as specified below.

**Required History**

9 credits:

HIST 202	(3)	Survey: Canada to 1867
HIST 203	(3)	Survey: Canada since 1867
HIST 303*	(3)	History of Quebec
HIST 353*	(3)	History of Montreal

\* Note: Students select either HIST 303 or HIST 353.

**Complementary Courses**

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
ECON 205	(3)	An Introduction to Political Economy
ECON 208	(3)	Microeconomic Analysis and Applications
ECON 209	(3)	Macroeconomic Analysis and Applications
ECON 219	(3)	Current Economic Problems: Topics
ECON 221	(3)	Economic History
ECON 313	(3)	Economic Development 1
ECON 326	(3)	Ecological Economics
ECON 341	(3)	Economic History of a World Area
ECON 347	(3)	Economics of Climate Change
ENVR 201	(3)	Society, Environment and Sustainability
ENVR 203	(3)	Knowledge, Ethics and Environment

POLI 211	(3)	Comparative Government and Politics
POLI 212	(3)	Government and Politics - Developed World
POLI 221	(3)	Government of Canada
POLI 222	(3)	Political Process and Behaviour in Canada
POLI 227	(3)	Developing Areas/Introduction
POLI 243	(3)	International Politics of Economic Relations
POLI 244	(3)	International Politics: State Behaviour
POLI 341	(3)	Foreign Policy: The Middle East
POLI 345	(3)	International Organizations
POLI 354	(3)	Approaches to International Political Economy
POLI 360	(3)	Security: War and Peace
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:

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

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

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

**Electives (6 credits)**

6 credits:

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

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 academic studies, professional studies, and school-based practicum components. All of this is supported by studies in pedagogy, curriculum, and educational foundations.

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

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 F







POLI 341	(3)	Foreign Policy: The Middle East
POLI 345	(3)	International Organizations
POLI 354	(3)	Approaches to International Political Economy
POLI 360	(3)	Security: War and Peace
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

### Geography

18 credits from:

ENVR 202	(3)	The Evolving Earth
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 216	(3)	Geography of the World Economy
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)

6 credits

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

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 acadthe Modern

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
PHYS 101	(4)	Introductory Physics - Mechanics
PHYS 102	(4)	Introductory Physics - Electromagnetism
PHYS 131	(4)	Mechanics and Waves
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 101D1	(3)	Beginners French
FRSL 101D2	(3)	Beginners French
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 (45 credits)**

EDEC 201	(1)	First Year Professional Seminar
EDEC 215	(0)	English Language Requirement
EDEC 247	(3)	Policy Issues in Quebec Education
EDEC 254	(1)	Second Professional Seminar (Secondary)
EDEC 351	(2)	Third Professional Seminar (Secondary)
EDEC 404	(3)	Fourth Year Professional Seminar (Sec)
EDES 350	(3)	Classroom Practices (Secondary)
EDFE 200	(2)	First Field Experience (K/Elem & Secondary)
EDFE 254	(3)	Second Field Experience (Secondary)
		Third Field Experience (Secondary)

(3) Measurement and Evaluation

- 9 credits minimum from courses on the Living World
- 9 credits minimum from courses on Earth and Space
- 9 credits minimum from courses on the Material World
- 6 credits minimum from courses on the Technological World

15 credits of complementary courses either spread across the four subjects areas or concentrated in one subject area. Students who plan to teach Grade 11 Chemistry or Physics should concentrate their 15 complementary credits in the Material World.

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

### **Statistics**

3 credits:

MATH 203	(3)	Principles of Statistics 1
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### **History of Science**

3 credits:

EDTL 520	(3)	Perspectives on Knowledge in Mathematics and Science
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### **The Living World - Required**

6 credits:

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

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

### **The Living World - Complementary**

Students select a minimum of 3 credits to a maximum of 15 credits from courses on the Living World in the areas of:

Cell and Molecular Biology

Human and Organismal Biology

Populations, Ecosystems, and Evolution

### **The Living World - Cell and Molecular Biology**

BIOL 201	(3)	Cell Biology and Metabolism
BIOL 202	(3)	Basic Genetics
BIOL 300	(3)	Molecular Biology of the Gene
BIOL 301	(4)	Cell and Molecular Laboratory
BIOL 313	(3)	Eukaryotic Cell Biology

### **The Living World - Human and Organismal Biology**

BIOL 205	(3)	Biology of Organisms
EDKP 292	(3)	Nutrition and Wellness
EDKP 395	(3)	Exercise Physiology
NUTR 207	(3)	Nutrition and Health
NUTR 307	(3)	Human Nutrition
PHGY 209	(3)	Mammalian Physiology 1
PHGY 210	(3)	Mammalian Physiology 2

**The Living World - Populations, Ecosystems, and Evolution**

BIOL 215	(3)	Introduction to Ecology and Evolution
BIOL 240	(3)	Monteregian Flora
BIOL 304	(3)	Evolution
BIOL 305	(3)	Animal Diversity
BIOL 308	(3)	Ecological Dynamics
BIOL 310	(3)	Biodiversity and Ecosystems
BIOL 331	(3)	Ecology/Behaviour Field Course
BIOL 352	(3)	Vertebrate Evolution
ENVB 305	(3)	Population & Community Ecology
EPSC 334	(3)	Invertebrate Paleontology

**Earth and Space - Complementary**

Students select a minimum of 9 credits to a maximum of 24 credits from courses on Earth and Space with the following specifications:

a minimum of 6 to a maximum of 21 credits from Earth and Space

a minimum of 3 to a maximum of 18 credits from Environment

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
EPSC 233	(3)	Earth and Life History
EPSC 320	(3)	Elementary Earth Physics
EPSC 330	(3)	Earthquakes and Earth Structure
EPSC 350	(3)	Tectonics
ESYS 200	(3)	Earth System Processes
ESYS 300	(3)	Investigating the Earth System
ESYS 301	(3)	Earth System Modelling
GEOG 272	(3)	Earth's Changing Surface
GEOG 321	(3)	Climatic Environments
PHYS 214	(3)	Introductory Astrophysics

**Earth and Space - Environment**

ENVR 200	(3)	The Global Environment
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ENVR 201	(3)	Society, Environment and Sustainability
ENVR 203	(3)	Knowledge, Ethics and Environment

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PHYS 258	(3)	Experimental Methods 2
PHYS 271	(3)	Introduction to Quantum Physics
PHYS 328	(3)	Electronics
PHYS 331	(3)	Topics in Classical Mechanics
PHYS 333	(3)	Thermal and Statistical Physics
PHYS 339	(3)	Measurements Laboratory in General Physics
PHYS 340	(3)	Majors Electricity and Magnetism
PHYS 342	(3)	Majors Electromagnetic Waves
PHYS 432	(3)	Physics of Fluids
PHYS 434	(3)	Optics
PHYS 436	(3)	Modern Physics
PHYS 439	(3)	Majors Laboratory in Modern Physics
PHYS 446	(3)	Majors Quantum Physics

### The Technological World

Students select a minimum of 6 credits to a maximum of 15 credits from courses on the Technological World.

\* Note: Students may take either COMP 102 or COMP 280, but not both.

\*\* Note: Credit will not be given for COMP 102 if it is taken concurrently with or after COMP 202.

COMP 102*	(3)	Computers and Computing
COMP 202**	(3)	Foundations of Programming
COMP 206	(3)	Introduction to Software Systems
COMP 280*	(3)	History and Philosophy of Computing
COMP 364	(3)	Computer Tools for Life Sciences
MATH 204	(3)	Principles of Statistics 2
PHYS 334	(3)	Advanced Materials

## 9.10 Concurrent Bachelor of Science (B.Sc.) and Bachelor of Education (B.Ed.) - Major Concentration Biology - Cell/Molecular 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 - Cell/Molecular 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 Biology - Cell/Molecular with Minor Chemistry is one of the nine variations of the program and allows students to focus their Science degree in Cell/Molecular Biology 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 Major Concentration Biology - Cell/Molecular

- 18 credits of 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 de

## Calculus A

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)	Exceptional Students
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
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.

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

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### 9.11 Concurrent Bachelor of Science (B.Sc.) and Bachelor of Education (B.Ed.) - Major Concentration Biology - Cell/Molecular 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 Biology - Cell/Molecular 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 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 Biology - Cell/Molecular with Minor Physics is one of the nine variations of the program and allows students to focus their Science de



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 Language Requirement
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)	Exceptional Students
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



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 |
|          |     | Introduction to Quantum Ph    |

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 Complementar**

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:

Introductory Ph

EDPI 309*	(3)	Exceptional Students
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 in Biology.

### Required Courses

24 credits

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

### 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
	y	Introductory Organic Chemistry 1

The Concurrent Bachelor of Science (B.Sc.) and Bachelor of Education (B.Ed.) - Major Concentration Biology - Organismal 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 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 Biology - Organismal with Minor Physics is one of the nine variations of the program and allows students to focus their Science degree in Organismal Biology with a subspecialization in Physics.

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

70 credits of Science Component consisting of:

- 37 credits of Major Concentration Biology - Organismal

- 18 credits of Minor Physics

- 15 credits of Additional Science Courses

5 credits of Electives, of which at least 2 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 [ence j1665.c 420 fir1Tj67.52 an](http://www.mcgill.ca/scienceforteachers/)

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



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 (5 credits)**

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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### **9.14 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 96iC Tm(MA)Tj1 0 ah 1 157.175 237clP3 nd Magnethiis pro2.5m59.18-0F1 3 0 0Ne

(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 (SOUA) to obtain advice and approval of their course selection. Full details are available on the SOUA 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>







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

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

- 18 credits of the Minor Physics

- 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
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.F1r.415 Tw-0.017 Tc1>

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)	Exceptional Students
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.

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 follo 0 1 264.967 474.801 0S 1 0 8.3 Tf1 0 0d63 235.482 Tm j1 0 0 1d to per124.35 250.062 T6m(71 0 0d63 235.elobua2 T6m(71 0 0d63 235.elo

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

### Complementary Courses

15 credits 1 81 Tm50S/c3.52 360.344 Tm(15 crS/c3.uogT74.81 Tm(sesIredits 1 81 T021 1(15 crS/c3.uogT74.81 Tm(sesIredit4dit4dit4dit4s:9 Tm(se)Tj/F1 8.332.76it

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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**9.16 Concurrent Bachelor of Science (B.Sc.) and Bachelor of Education (B.Ed.) - Major Concentration Physics 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 Physics 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 Physics with Minor Biology is one of the nine variations of the program and allows students to focus their Science degree in Physics 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 Major Concentration Physics
- 24 credits of 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/physics> or <http://www.mcgill.ca/education>

**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.

3se

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 Language Requirement
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)	Exceptional Students
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 Physics (36 credits)

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

#### Required Courses\*

30 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.

MATH 222	(3)	Calculus 3
MATH 223	(3)	Linear Algebra
MATH 314	(3)	Advanced Calculus
MATH 315	(3)	Ordinary Differential Equations
PHYS 230	(3)	Dynamics of Simple Systems
PHYS 232	(3)	Heat and Waves
PHYS 257	(3)	Experimental Methods 1
PHYS 333	(3)	Thermal and Statistical Physics
PHYS 340	(3)	Majors Electricity and Magnetism
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)

24-25 credits for the Minor Biology selected as follows:

15 credits of required courses

9-10 credits of complementary courses

## **Required Courses**

15 credits

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

## **Complementary 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>

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 f

EDPE 300*	(3)	Educational Psychology
EDPE 304	(3)	Measurement and Evaluation
EDPI 309*	(3)	Exceptional Students
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.

PHYS 334	(3)	Advanced Materials
PHYS 534	(3)	Nanoscience and Nanotechnology

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

### Minor Chemistry (18 credits)

#### Required Courses

18 credits selected as follows:

\* 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:

9 credits

BIOL 210	(3)	Perspectives of Science
CHEM 381	(3)	Inorganic Chemistry 2
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 Ph965918.683f whicT 1 182.289 5m8034118.683f whiceachers is jointlj1 1 182.289 5m.68HEM 8

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

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 otherut taking cour

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)	Exceptional Students
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 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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**9.19 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



MUHL 286 (3) Critical Thinking About Music

### 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  
 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)**

\* Note: Students take either EDEE 355 or EDPE 304, but not both.

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	(0)	English Language Requirement
EDEC 247	(3)	Policy Issues in Quebec Education
EDEE 355*	(3)	Classroom-based Evaluation
EDES 350	(3)	Classroom Practices (Secondary)
EDFE 205	(2)	First Field Experience (Music)
EDFE 208	(3)	Second Field Experience (Music)
EDFE 308	(8)	Third Field Experience (Music)
EDFE 407	(7)	Fourth Field Experience (Music)
EDPE 300	(3)	Educational Psychology
EDPE 304*	(3)	Measurement and Evaluation
EDPI 309	(3)	Exceptional Students

**Complementary Education Courses (10 credits)**

10 credits distributed as follows:

3 credits from:

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

1 credit from:

EDEC 253	(1)	Second Professional Seminar (Kindergarten/Elementary)
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EDEC 254 (1) Second Professional Seminar (Secondary)

3 credits from:

EDEC 260 (3) Philosophical Foundations

EDEC 261 (3) Philosophy of Catholic Education

3 credits from:

EDEC 262 (3) Media, Technology and Education

EDPT 200 (3) Integrating Educational Technology in Classrooms

EDPT 204 (3) Educational Media 1

MUGT 301 (3) Technology and Media for Music Education

### 9.19.1 Admissions to the Concurrent Bachelor of Music (Major Music Education) and Bachelor of Education in Music Program

Applicants without a completed Bachelor of Music degree who wish to pursue a teacher education degree specializing in Music should apply to the Concurrent Bachelor of Music (Music Education)/Bachelor of Education in Music program. Students who have partially completed a Bachelor of Music program are eligible to apply for Advanced Standing in the Concurrent program.

Application to the Concurrent B.Mus./B.Ed. program 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:

Admissions Office  
McGill University  
Schulich School of Music  
555 Sherbrooke Street West  
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:

Enrolment Services  
McGill University  
Service Point  
3415 McTavish Street  
Montreal, QC H3A 0C8  
Telephone: 514-398-7878  
Fax: 514-398-5544

Program details are available from:

Professor Caroline Riches, Program Director  
Telephone: 514-398-5793  
Department of Integrated Studies in Education  
Telephone: 514-398-4527

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## 9.20 Bachelor of Education (B.Ed.) - Kindergarten and Elementary Education (120 credits)

The Bachelor of Education (B.Ed.) - Kindergarten and Elementary Education 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 Education 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.

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Please note that graduates of teacher education programs are recommended by the University for Quebec certification to the Quebec Ministère

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)	Exceptional Students
EDPI 341	(3)	Instruction in Inclusive Schools

### Complementary Courses (18 credits)

18 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

#### Media, Technology, Computers, and Education

3 credits from:

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

#### 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 - Ph**



ENGL 200	(3)	Survey of English Literature 1
ENGL 201	(3)	Survey of English Literature 2
ENGL 215	(3)	Introduction to Shakespeare
	(3)	American Literature 1

RELG 256	(3)	Women in Judaism and Islam
RELG 270	(3)	Religious Ethics and the Environment
RELG 271	(3)	Sexual Ethics
WMST 200*	(3)	Introduction to Women's Studies

**French**

Students may choose up to 12 credits of French as a Second Language (FRSL) courses and/or French (FREN) courses.

**Mathematics**

Students may choose up to 12 credits of Mathematics (MATH) courses at the 200 level or higher.

Note: Students admitted with CEGEP mathematics (or equivalent) may not take MATH 111 for credit. MATH 111 is a recommended course for Freshman students.

MATH 111	(3)	Mathematics for Education Students
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**Music**

Students may choose up to 12 credits from this list. Students may also select any Music course with the MUGT, MUHL, MUIT, or MUCT subject codes.

With the permission of the Program Adviser, students without a formal music background may choose courses with the MUAR subject code.

\* Note: Courses marked with a single asterisk ("\*") require permission from the Schulich School of Music to register.

EDEA 341	(3)	Listening for Learning
EDEA 352	(3)	Music Listening in Education
EDEA 362	(3)	Movement, Music and Communication
MUJZ 160*	(3)	Jazz Materials 1
MUJZ 161*	(3)	Jazz Materials 2

**Natural Sciences**

Students may choose up to 12 credits from this list.

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 Ph

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## 9.21 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 newly admitted students to the B.Ed. Kindergarten and Elementary Education program on the Faculty of Education website at <http://www.mcgill.ca/edu-dise/students/undergraduate/new/#KE>.

### Required Courses (108 credits)

EDEA 242	(3)	Cultural Skills 1
EDEA 243	(3)	Cultural Skills 2
EDEC 201	(1)	First Year Professional Seminar
EDEC 203	(3)	Communication in Education
EDEC 215	(0)	English Language Requirement
EDEC 216	(0)	Aboriginal Language Requirement
EDEC 247	(3)	Policy Issues in Quebec Education
EDEC 253	(1)	Second Professional Seminar (Kindergarten/Elementary)
EDEC 260	(3)	Philosophical Foundations
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 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)	Exceptional Students
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 follo

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

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-level courses with the subject codes of ANTH (Anthropology), ENGL (English), GEOG (Geography), HIST (History), MUAR (Music-Arts Faculty), POLI (Political Science), PSYC (Psychology), RELG (Religious Studies), and SOCI (Sociology). For 200-level courses, information about any required prerequisites is found in the Minerva Class Schedule by clicking on the course CRN for registration. Check prerequisites before registering.

CEAP 250	(3)	Research Essay & Rhetoric
EDEE 325	(3)	Children's Literature
EDEM 220	(3)	Contemporary Issues in Education

EDES 366	(3)	Literature for Young Adults
FRSL 101D1	(3)	Beginners French
FRSL 101D2	(3)	Beginners French
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
MATH 111	(3)	Mathematics for Education Students
RELG 207	(3)	The Study of World Religions 1

**Required Courses (81 credits)**

EDEC 201	(1)	First Year Professional Seminar
EDEC 203	(3)	Communication in Education
EDEC 215	(0)	English Language Requirement
EDEC 247	(3)	Policy Issues in Quebec Education
EDEC 253	(1)	Second Professional Seminar (Kindergarten/Elementary)
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 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)	Exceptional Students
EDPI 341	(3)	Instruction in Inclusive Schools
JWST 211	(3)	Jewish Studies 1: Biblical Period

**Complementary Courses (36 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

**Media, Technology, Computer**



EDEC 247	(3)	Policy Issues in Quebec Education
EDEC 253	(1)	Second Professional Seminar (Kindergarten/Elementary)
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)	Exceptional Students
EDPI 341	(3)	Instruction in Inclusive Schools
EDSL 300	(3)	Foundations of L2 Education
EDSL 305	(3)	L2 Learning: Classroom Settings
EDSL 341*	(3)	Littérature et littérature jeunesse en FLS

\* 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 (27 credits)

27 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

### **Media, Technology, Computers, and Education**

3 credits from:

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

### **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**

15 credits selected from courses with a FREN prefix

EDSL 301*	(3)	Étude de la langue
EDSL 341*	(3)	Littérature et littérature jeunesse en FLS

\* Students may select EDSL 301 OR FREN 231 but not both.

### **Elective Courses (3 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

Students admitted to the B.Ed. TFSL program are required to take a diagnostic test in French Language (written and oral). Based on test results, students may be required to successfully complete a remedial course above and beyond degree requirements. In addition, there will be a compulsory French language test for TFSL students prior to their third Field Experience. Students will be required to pass this test in order to continue in the program.

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", "ETder "Ov

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 level in the teaching of French, the following courses (or equivalent courses if not available):

FREN 239	(3)	Stylistique comparée
FREN 245	(3)	Grammaire avancée
FREN 334	(3)	Méthode d'analyse des textes littéraires 1

### Complementary Courses (40 credits)

40 credits selected as described below.

3 credits from:

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

8 credits, one of two sets of courses:

Either set:

EDFE 362	(7)	Stage d'enseignement en Français langue seconde
EDSL 320	(1)	Séminaire 3 professionnel

Or set:

EDFM 361	(7)	Stage d'enseignement 1
EDUM 394	(1)	Séminaire de stage-3e

11 credits, one of two sets of courses:

Either set:

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EDSL 472	(3)	Enseignement du français langue seconde-secondaire
EDUM 391	(3)	Didactique du français en accueil 1

3 credits from:

EDUM 493	(3)	Sciences humaines au primaire
EDUM 494	(3)	Didactique de l'univers social et TIC
EDUM 495	(3)	Recherche-résolution de problèmes

ENGL 201	(3)	Survey of English Literature 2
FRSL 101D1	(3)	Beginners French
FRSL 101D2	(3)	Beginners French
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
LING 200	(3)	Introduction to the Study of Language
LING 201	(3)	Introduction to Linguistics

**Required Courses (78 credits)**

EDEC 203	(3)	Communication in Education
EDEC 215	(0)	English Language Requirement
EDEC 247	(3)	Policy Issues in Quebec Education
EDES 350	(3)	Classroom Practices (Secondary)
EDFE 209	(2)	First Field Experience (TESL)
EDFE 255	(3)	Second Field Experience (TESL)
EDFE 359	(8)	Third Field Experience (TESL)
EDFE 459	(7)	Fourth Field Experience (TESL)
EDPE 300	(3)	Educational Psychology
EDPI 309	(3)	Exceptional Students
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 (36 credits)**

36 credits selected as described below:

3 credits from:



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 9.21: Bachelor of Education \(B.Ed.\) - Kindergarten and Elementary Education - First Nations and Inuit Studies \(120 credits\)](#).

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

Program under review.

This 60-credit program provides an opportunity for Algonquin, Cree, Inuit, Mi'kmaq, and Mohawk 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 for Certified Teachers program with up to 30 credits advanced standing. Certain non-credit academic upgrading courses may be required of B.Ed. applicants.

### 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 (30 credits)

EDEC 203	(3)	Communication in Education
EDEC 260	(3)	Philosophical Foundations
EDEE 325	(3)	Children's Literature
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

30 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

**Cultural Skills and Language Arts**

6 credits:

EDEA 242	(3)	Cultural Skills 1
EDEE 223	(3)	Language Arts

18 credits from course List A and course List B with at least 12 credits in different subject areas. Priority should be given to selecting courses from List A.

**List A**

EDEC 262	(3)	Media, Technology and Education
EDEE 230	(3)	Elementary School Mathematics 1
EDEE 241	(3)	Teaching Language Arts
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 332	(3)	Teaching Elementary Mathematics 2
EDEE 355	(3)	Classroom-based Evaluation

**List B**

EDEA 241	(3)	Basic Art Media for Classroom
EDEC 200	(3)	Introduction to Inuit Studies
EDEC 220	(3)	Curriculum Development
EDEC 243	(3)	Teaching: Multigrade Classrooms
EDEC 244	(3)	Issues in Aboriginal Education
EDEC 403	(3)	The Dialects of Inuktitut
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 261	(3)	Reading Clinic - Early Childhood
EDEE 292	(3)	Using Instructional Resources
EDEE 340	(3)	Special Topics: Cultural Issues
EDEE 342	(3)	Intermediate Inuktitut/Amerindian Language
EDEE 344	(3)	Advanced Inuktitut/Amerindian Language
EDEE 346	(3)	Literature and Creative Writing 2
EDEE 444	(3)	First Nations and Inuit Curriculum
EDKP 204	(3)	Health Education
EDKP 224	(3)	Foundations of Movement Education
EDKP 342	(3)	Physical Education Methods
EDKP 494	(3)	Physical Education Curriculum Development
EDPE 377	(3)	Adolescence and Education
EDSL 247(3)	(3)	First Nations of Mo Second Language Education in Aboriginal Communities

**Required Courses (30 credits)**

EDEC 203	(3)	Communication in Education
EDEC 260	(3)	Philosophical Foundations
EDEE 325	(3)	Children's Literature
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; students specializing in Physical Education will do a minimum of 6 credits in Physical Education settings.

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 (30 credits)**

30 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

9 credits:

EDKP 241	(3)	Aboriginal Physical Activities
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 229	(1)	Ice Hockey 1
EDKP 240	(1)	Winter Activities

**List A**

9 credits from different subject areas from course List A and course List B with priority given to courses from List A.

EDEC 262	(3)	Media, Technology and Education
EDEE 230	(3)	Elementary School Mathematics 1
EDEE 241	(3)	Teaching Language Arts
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 332	(3)	Teaching Elementary Mathematics 2
EDEE 355	(3)	Classroom-based Evaluation

**List B**

EDEA 241	(3)	Basic Art Media for Classroom
EDEC 200	(3)	Introduction to Inuit Studies
EDEC 220	(3)	Curriculum Development
EDEC 243	(3)	Teaching: Multigrade Classrooms

EDEC 244	(3)	Issues in Aboriginal Education
EDEC 403	(3)	The Dialects of Inuktitut
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 261	(3)	Reading Clinic - Early Childhood
EDEE 292	(3)	Using Instructional Resources
EDEE 340	(3)	Special Topics: Cultural Issues
EDEE 342	(3)	Intermediate Inuktitut/Amerindian Language
EDEE 344	(3)	Advanced Inuktitut/Amerindian Language
EDEE 345	(3)	Literature and Creative Writing 1
EDEE 346	(3)	Literature and Creative Writing 2
EDEE 444	(3)	First Nations and Inuit Curriculum
EDKP 204	(3)	Health Education
EDKP 224	(3)	Foundations of Movement Education
EDKP 342	(3)	Physical Education Methods
EDKP 494	(3)	Physical Education Curriculum Development
EDPE 377	(3)	Adolescence and Education
EDSL 247	(3)	Second Language Education in Aboriginal Communities

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### **10.3 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. Fluenc

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.

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

Students admitted to this program will be recommended by their communities. If the program is used for professional development, students will be Indigenous teachers employed in local schools. They must be mature students, or hold a Secondary V diploma or equivalent. The right of final decision for acceptance of candidates rests with McGill.

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## 10.5 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

### 10.5.1 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 boards or teaching authorities. The right of final decision for acceptance of candidates rests with McGill.

## 10.6 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

#### **10.6.1 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 equiv



**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.

**10.7.1 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.

**10.8 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

**10.8.1 Admission to the Certificate in Aboriginal Education for Certified Teachers**

Applicants must provide the following:

- a Diploma of Collegial Studies (DEC) or its equivalent;
- evidence of having completed teacher training at an approved institution;
- a letter of recommendation from a competent authority.

All courses are normally given off campus and are normally limited to students enrolled in off-campus programs delivered through First Nations and Inuit Education. The right of final decision for acceptance of candidates rests with McGill.

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**10.9 Certificate in First Nations and Inuit Student Personnel Services (30 credits)**

This program is of

## 11 Department of Kinesiology and Physical Education

### 11.1 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)

### 11.2 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).

### 11.3 Department of Kinesiology and Physical Education Faculty

#### Interim 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.)

Hélène Perrault; B.Sc.(C'dia), M.Sc., Ph.D.(Montr.)

#### 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.)

Tanja Taivassalo; B.Sc., Ph.D.(McG.)

**Associate Professors**

René A. Turcotte; H.B.P.H.E.(Laur.), M.Sc., Ph.D.(Alta.)

**Assistant Professors**

Dennis (McGill) Robert Boush, MA 130.76 709.84 Tm (7.025s5 (v.(McGSc.),804cad.(AltaA136S. Flo. G 0 g BT /Fn28.69s5 (v.(McGS(AID 0 0 1Bosto

Caroline Paquette; B.Sc., M.Sc.(Laval), Ph.D.(McG.)

**Faculty Lecturer**

Celena Scheede-Bergdahl; B.Sc.(C'dia), M.Sc.(Montr

EDFE 380	(7)	Third Field Experience (Physical Education)
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

### **Media, Technology, Computers and Education**

3 credits from:

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

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

15 credits chosen from any of the University's course offerings to contribute to the student's academic proficiency and professional preparation.

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## **11.5 Bachelor of Science (Kinesiology) (B.Sc.(Kinesiology)) - Kinesiology (90 credits)**

The McGill Bachelor of Science (B.Sc.) - Kinesiology program received accreditation from the Canadian Council of University Physical Education and Kinesiology Administrators (CCUPEKA) in April 2007.

The 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.

The focus of the Kinesiology program is 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. To qualify for the Honours program, students must obtain a CGPA of 3.3 after two years in Kinesiology and must retain this CGPA until graduation.

Graduation Requirement:

Prior to graduation, students are required to show proof of certification in Standard Level Safety Oriented First Aid/Level C in Cardiopulmonary Resuscitation, or equivalencies.

### **Freshman Program**

29-30 credits of basic science courses depending on the Fall term MATH course selected.

Students admitted from CEGEP or with other Advanced Standing should have equivalencies for these courses to be exempt from Freshman program requirements.

Fall term BIOL and CHEM courses:

BIOL 111 (3) Principles: Organismal Biology  
CHEM 110 (4) General Chemistry 1

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

MATH 139 (4) Calculus 1 with Precalculus  
MATH 140 (3) Calculus 1  
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 (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:

EDKP 200	(1)	Weight Training
EDKP 201	(3)	Physical Activity Leadership
EDKP 244	(1)	Dance and Fitness
EDKP 311	(3)	Athletic Injuries
EDKP 394	(3)	Historical Perspectives
EDKP 444	(3)	Ergonomics
EDKP 445	(3)	Exercise Metabolism
EDKP 446	(3)	Physical Activity and Ageing
EDKP 449	(3)	Exercise Pathophysiology 2
EDKP 451	(3)	Personal Trainer Practicum
EDKP 452	(3)	Fitness & Lifestyle Consulting
EDKP 453	(3)	Research Practicum in Kinesiology
EDKP 542	(3)	Environmental Exercise Physiology
EDKP 566	(3)	Advanced Biomechanics Theory
NUTR 503	(3)	Bioenergetics and the Lifespan

**Elective Courses (14 credits)**

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

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## 12.2 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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