Faculty of Education

Programs, Courses and University Regulations

2013-2014

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

1. McGill University reserves the right to make changes to the information contained in this online publication - including correcting errors, altering fees, schedules of admission, and credit requirements, and revising or cancelling particular courses or programs - without prior notice.
2. In the interpretation of academic regulations, the Senate is the final authority.
3. Students are responsible for informing themselves of the University's procedures, policies and regulations, and the specific requirements associated with the degree, diploma, or certificate sought.
4. All students registered at McGill University are considered to have agreed to act in accordance with the University procedures, policies and regulations.
5. Although advice is readily available on request, the responsibility of selecting the appropriate courses for graduation must ultimately rest with the student.
6. Not all courses are offered every year and changes can be made after publication. Always check the Minerva Class Schedule link at https://horizon.mcgill.ca/pban1/bwckschd.p_disp_dyn_sched for the most up-to-date information on whether a course is offered.
7. The academic publication year begins at the start of the Fall semester and extends through to the end of the Winter semester of any given year. Students who begin study at any point within this period are governed by the regulations in the publication which came into effect at the start of the Fall semester.
8. Notwithstanding any other provision of the publication, it is expressly understood by all students that McGill University accepts no responsibility to provide any course of instruction, program or class, residential or other services including the normal range of academic, residential and/or other services in circumstances of utility interruptions, fire, flood, strikes, work stoppages, labour disputes, war, insurrection, the operation of law or acts of God or any other cause (whether similar or dissimilar to those enumerated) which reasonably prevent their provision.

Note: Throughout this publication, "you" refers to students newly admitted, readmitted or returning to McGill.

Publication Information

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McGill University
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1 About the Faculty

The Faculty serves approximately 2,000 students enrolled in undergraduate, graduate, and professional development programs. The Faculty is organized into three departments and the School of Information Studies. In addition, the Faculty has a number of research and service centres, including several of an interdisciplinary nature.

Like other faculties of education in Quebec and Canada, the Faculty has had a traditional role in the initial training of teachers and leaders in education-allied occupations. It is also concerned with constructing knowledge through research and scholarship, and with providing professional development services to the wider educational community.

In recent years, a number of links have been established with counterparts in other countries for teaching, research, and development purposes. Current active projects, some of which involve students as well as staff, include those in Japan, Indonesia, South Africa, and Mexico.

2 History

The Faculty of Education traces its beginnings back to 1857, when the McGill Normal School was established at McGill by agreement between the University and the Government of Quebec. In 1907, it was renamed the School for Teachers and was moved to Sainte-Anne-de-Bellevue, where it became part of Macdonald College. At this time also, the Macdonald Chair of Education was endowed at McGill University and a Department of Education was created in the Faculty of Arts and Science for the purpose of preparing candidates for the High School Diploma. The first graduate program was inaugurated in 1930, and in 1953, the University established the B.Ed. degree.

In 1955, the School for Teachers and the Department of Education were combined to become the Institute of Education within the Faculty of Arts and Science. To these was joined, in 1957, the McGill School of Physical Education (founded in 1912).

The Institute was reconstituted as the Faculty of Education in 1965 and the work continued on both the McGill and Macdonald campuses. The St. Joseph Teachers College and the Faculty of Education were amalgamated in 1970 and relocated in a new building on the McGill campus. In 1996, the School of Information Studies became affiliated with the Faculty.

3 Faculty of Education Facilities

3.1 Education Library and Curriculum Resources Centre

The Education Library and Curriculum Resources Centre, located on the first floor of the Education Building, provides materials and services to support the teaching and research programs of the Faculty. The Library collection includes over 122,000 monograph volumes, 500 periodical titles, government publications, and access to a vast range of e-journals, e-books, and databases.

The Curriculum Resources Centre collection includes elementary and secondary school textbooks, teachers' resource guides, videos, DVDs, CDs, games, kits, puppets, big books, and equipment for viewing and listening. The Children's & Young Adult Literature Collection contains over 11,000 fiction, non-fiction, poetry, folklore, and picture books.

Tours and instructional workshops are offered at the beginning of each term to individual students and to classes. These provide an introduction to library resources and information skills that will help in preparing course assignments and writing research papers. They cover topics such as searching the library catalogue, finding course materials on reserve, and locating articles and other materials via databases such as ERIC, PsycINFO, Education Full Text, and others. Workshops on EndNote and other citation management programs provide help on how to easily create in-text citations, notes, and reference lists.

The Education Library provides computers for student use, tables and carrels to connect laptops, wireless access, as well as photocopiers, printers, and scanners. You may select to work in the quiet study area, in one of several group study spaces, or just relax on a comfortable reading chair.

Lending Services for laptops, digital still and video cameras, digital audio recorders, and tripods are now handled by the Education Library. These services are available during regular Library operating hours.

Visit the Education Library website to learn more about library loans, hours, reserve readings, and links to important education sites. We look forward to seeing you in the Library.

Head Librarian: Sara Holder
Telephone: 514-398-4689
Website: *www.mcgill.ca/library/library-using/branches/education-library*

3.2 Education Undergraduate Society (EDUS)

The Society is the undergraduate students' voice of undergraduates within the Faculty and its primary purpose is to serve and to inform the students. It also attempts to unify students through sponsorship of activities such as career placement, student orientation, participation in teachers' conventions, library donations, and the organization of an Education Career Fair. Other activities include the assignment of lockers for students, selling merchandise in the Spirit Store, the coordination of the Graduation Ball, as well as fundraising and events throughout the academic year. Students are encouraged to participate and to make their opinions known. The Society Office is located in Room B179 of the Education Building.

Telephone: 514-398-7048
Fax: 514-398-2476
Email: *president.edus@mail.mcgill.ca*
Website: *www.mcgilledus.ca*

3.3 Computer Facilities

The Faculty has a large computer complex located in Room 328 of the Education Building. It houses a lab with Windows computers, a second lab with Apple Macintosh computers, and a smaller work area with additional computers. Colour and black-and-white laser printing and scanning facilities are available at a cost. This facility is available for courses, workshops, and individual use by Education students and staff.

Closed Saturdays, holidays, and during the month of August.

Hours for the Fall and Winter terms	
Monday to Thursday	09:00–21:00
Friday	09:00–17:00
Saturday	11:00–16:00

Website: *www.mcgill.ca/education/technology* (under “Education Computer Lab”)

3.4 McGill Career Planning Service (CaPS)

Refer to *Programs, Courses and University Regulations > University Regulations and Resources > Undergraduate > Student Services* (available at *www.mcgill.ca/study*) for further information on this service.

Career Adviser: Andrea Taylor
Telephone: 514-398-2484
Email: *andrea.taylor@mcgill.ca*
Website: *www.mcgill.ca/edu-sao/caps*

3.5 McGill Journal of Education

The *McGill Journal of Education/Revue des sciences de l'éducation de McGill* is an open-access, online journal that is published three times a year: Winter, Spring, and Fall. It includes work in English and French from local, national, and international contexts. The *MJE* publishes peer-reviewed research articles and essays, as well as non-peer-reviewed (editorial) notes from the field, discussion forums, and book reviews. It is concerned with major issues in formal, non-formal, and incidental teaching and learning from a variety of perspectives, practical and theoretical, personal and collective. Its policy is to bring new ideas and research into a context open to teacher educators and scholars, as well as to parents, teachers, popular educators, community workers, and administrators.

Editorial Collective: Dr. Anila Asghar, Dr. Aziz Choudry, Dr. Teresa Strong-Wilson
Managing Editor: Mr. Stephen Peters

Faculty of Education
McGill Journal of Education
3700 McTavish Street, Room 345
Montreal, Quebec H3A 1Y2
Telephone: 514-398-4246
Website: *http://mje.mcgill.ca*

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*

Hours	
Monday to Friday	09:00–16:00

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
Fax: 514-398-3179
Website: *www.mcgill.ca/ost*

3.8 Student Affairs Office (SAO)

The Student Affairs Office is responsible for student records and registration as well as general academic information and advice on undergraduate program and degree requirements, course change, withdrawal, supplemental and deferred exams, rereads, academic standing, inter-faculty transfer, readmission, study away, scholarships and awards, graduation, and teacher certification.

Special requests can be made, in writing, to Kimiz Dalkir, Executive Director (Student Affairs).

Office: Education Building, Room 243
Telephone: 514-398-7042
Fax: 514-398-4679
Email: *sao.education@mcgill.ca*
Website: *www.mcgill.ca/edu-sao*

3.9 Faculty Institutes, Offices, and Centres

3.9.1 The Institute for Human Development and Well-Being

The Institute for Human Development and Well-Being (IHDW) is a newly forming research institute led by the Faculty of Education that encourages a trans-disciplinary and multidisciplinary approach to the study of human development and well-being. It works across three main axes: human development across the life span; the role of family, community, and schools in supporting human development and well-being; and social policy and planning in relation to children and youth.

Director: Dr. Claudia Mitchell (*James McGill Professor*)
Email: *claudia.mitchell@mcgill.ca*
Website: *www.mcgill.ca/ihdw*

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*

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

4 About the Faculty of Education (Undergraduate)

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

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 intervention; cognitive processes and developmental neuroscience; and the design and evaluation of learning environments and instructional practices.

The Department offers:

- Minor concentrations for undergraduate students

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

4.4 Location

3700 McTavish Street
Montreal, Quebec H3A 1Y2
Canada

Telephone: 514-398-7042
Fax: 514-398-4679
Website: *www.mcgill.ca/education*

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.(McG.), Ph.D.(C'dia)

Deputy Associate Dean, Graduate Studies

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

Unit Heads

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

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

5 Overview of Faculty Programs

The Faculty of Education offers three different kinds of programs.

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

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

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

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

5.1 Undergraduate Education Programs

The Faculty of Education offers the following undergraduate programs. Details of each program may be found in this publication under the headings of the appropriate department.

All Bachelor of Education programs have been accredited by the *Comité d'agrément des programmes de formation à l'enseignement* (CAPFE).

The credit weights given are for students who have completed a Quebec CEGEP degree, or have been granted 30 credits of Advanced Standing. 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.

section 9.4.1: Bachelor of Education: Secondary Program (120 credits), offered by the Department of Integrated Studies in Education.

section 9.4.4: Bachelor of Education (Kindergarten and Elementary) (120 credits), offered by the Department of Integrated Studies in Education.

section 9.21: Bachelor of Education (B.Ed.) - Kindergarten and Elementary Education - First Nations and Inuit Studies (120 credits), offered by the Department of Integrated Studies in Education.

section 9.22.1: Bachelor of Education Kindergarten and Elementary Program (Jewish Studies Option), offered by the Department of Integrated Studies in Education.

section 9.4.5: Baccalauréat en enseignement du français langue seconde (120 credits) (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 credits), offered by the Department of Integrated Studies in Education.

section 11.4: Bachelor of Education (B.Ed.) - Physical and Health Education (120 credits), 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 credits), 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 credits)* under *Schulich School of Music*.

section 9.4.3: Concurrent Bachelor of Science/Bachelor of Education (Secondary) (135 credits), 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 credits), 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*. 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*.

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

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

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

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

5.1.3 Quebec Teacher Certification

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

Language Proficiency

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

Confidential declaration concerning judicial record

In June 2005, the National Assembly of Quebec adopted an Act amending the Education Act and the Act respective of private education. The amendments concern the verification of judicial antecedents of persons holding or applying for a permit to teach in the youth, adult, and vocational sectors. Anyone seeking teacher certification in the Province of Quebec is required to submit a confidential declaration concerning their judicial record to the Minister of Education. This document is available on the MELS website at *www.mels.gouv.qc.ca/dftps/interieur/PDF/Antecedents_judiciaires_a.pdf*.

Teaching Diploma

All graduates of the Bachelor of Education Teacher Education programs who are Canadian citizens or permanent residents may apply for a permanent Teaching Diploma (*Brevet*) immediately upon graduation. International students may apply for a Temporary Permit (*Permis d'enseigner*).

Permit

Holders of a temporary permit or of a permanent diploma wishing to teach in another province or in another country must apply directly to the Teacher Certification Agency in the relevant province or country.

Teachers from other provinces or countries who wish to teach in Quebec must apply to:

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

Please refer to the following website for further information on obtaining a Quebec Teaching Licence: *www.mels.gouv.qc.ca*.

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

5.1.3.1 International Students

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

5.2 Programs of Professional Development

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

Detailed information regarding general regulations, admission requirements, and program profiles for the following certificates and diplomas may be found in the section for offering departments.

5.2.1 Department of Educational and Counselling Psychology

Department of Educational and Counselling Psychology
Certificate in Inclusive Education
Diploma in Human Relations and Family Life Education
Graduate Certificate in Counselling Applied to Teaching

Further information is available from the Program Coordinator:

Dean Thomson
Office: Education Building, Room 614
Telephone: 514-398-4248
Fax: 514-398-6968
Email: *dean.thomson@mcgill.ca*

5.2.2 Department of Integrated Studies in Education

First Nations and Inuit Education (FNIE): The Faculty of Education collaborates with various Indigenous communities and institutions offering programs whose courses are given either at McGill or off campus. In collaboration with the Kativik School Board, the Cree School Board, the Kahnawake Education Centre, and various other Indigenous communities in Quebec, FNIE delivers field-based teacher education programs leading to initial teacher certification and to the B.Ed.Cert.Teach. degree. FNIE also works with departments to meet other educational needs of Indigenous peoples.

Director of Programs in First Nations and Inuit Education: Professor Ralf St. Clair
Office: Education Building, Room 244
Telephone: 514-398-4533
Fax: 514-398-2553
Email: *ralf.stclair@mcgill.ca*
Website: *www.mcgill.ca/dise*

Courses offered through Continuing Studies and Summer Studies: A wide range of courses, enabling students either to acquire prerequisite credits or to earn credit towards their degree, is offered through Continuing Studies and Summer Studies. For courses offered, please check *Minerva*.

5.3 Programs for First Nations and Inuit

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

Information can be obtained by contacting:

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

Telephone: 514-398-4533
Fax: 514-398-2553
Website: *www.mcgill.ca/dise/fnie*

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

Detailed information about this program may be found in *section 9.21: Bachelor of Education (B.Ed.) - Kindergarten and Elementary Education - First Nations and Inuit Studies (120 credits).*

Detailed information about the following programs may be found in *section 10: Programs for First Nations and Inuit*:

Bachelor of Education for Certified Teachers Elementary Education

Certificate in Education for First Nations and Inuit

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

Certificate in Middle School Education in Aboriginal Communities

Certificate in First Nations and Inuit Educational Leadership

Certificate in Aboriginal Education for Certified Teachers

Certificate in Aboriginal Literacy Education

6 Faculty Regulations for Undergraduate Programs

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

Note: Each student in the Faculty of Education must be aware of and comply with the Faculty regulations as stated in this publication. While departmental and Faculty advisers and staff are always available to give advice and guidance, the ultimate responsibility for complete and correct course selection and registration, for compliance with, and completion of, program and degree requirements, for the observance of regulations and

deadlines, and for academic records, rests with the student. It is the student's responsibility to seek guidance. Misunderstanding will not be accepted as cause for dispensation from any regulation, deadline, program, or degree requirement.

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*, for further information. Assistance is also available by emailing: *sao.education@mcgill.ca*.

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

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

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

6.2 Code of Professional Conduct (Faculty Regulations for Undergraduate Programs)

Faculty of Education programs have professional components and field placements. In all aspects of any program, on and off campus, students are expected to demonstrate ethical, responsible, and professional behaviour in the performance of their duties, to conduct themselves in accordance with the law (e.g., Youth Protection), and to meet the expectations of schools, boards, and other host institutions receiving them for field placements. This applies to all aspects of professional conduct, including but not limited to respect for persons, property, and confidentiality, appropriate dress, and punctuality. Failure to meet these expectations, regardless of performance in courses or other formal program requirements will be taken into account in the assessment of the students' overall academic standing in the program and, in the most serious instance, may result in a requirement to withdraw from the program.

6.3 English Language Requirement

The Quebec *Ministère de l'Éducation, du Loisir et du Sport* (MELS) requires that all students in teacher education programs demonstrate their proficiency in the language of instruction. To fulfil this obligation, B.Ed. students are required to write the English Examination for Teacher Certification (EETC) before the end of their first semester in the program, except for Year 0 (Freshman) students who will write the examination in their second year (Year 1). Students must pass the examination prior to their Third Field Experience.

The examination is coordinated by an independent body, the Centre for the English Exam for Teacher Certification. McGill assists with the administration and scheduling of the examination. To write this examination, students must first register on Minerva for a section of EDEC 215 in the Fall term, then register with the Centre (*www.ceetc.ca*) and pay a $70 fee before writing the test.

Students who do not pass the examination the first time are expected to take EDEC 202 in the Winter term of their first year. After successful completion of EDEC 202, students are required to take the EETC again. A fee is charged each time the examination is written. Students who do not pass the examination on their fourth attempt must request permission from the Executive Director Student Affairs to write the examination again.

Note: This requirement does not apply to students in the B.Ed. TFSL or the Certificate in Education for First Nations and Inuit programs.

6.4 Additional Requirements for Students in the B.Ed. TFSL program

No admissions for 2013–2014.

For students currently enrolled in the B.Ed. TFSL program, there is a compulsory French language test coordinated by an independent body, which must be passed prior to the Third Field Experience.

6.5 Judicial Record Verification for Students in the Bachelor of Education Programs

Quebec's Education Act, section 261.0.2, grants school boards the right to verify the judicial record of any person regularly in contact with minors, and this includes student teachers. Each school board or private school may have its own administrative procedures for verification. Students are responsible for complying with their request. Anyone unable to obtain the required security clearance will not be permitted to undertake their Field Experiences, which is a mandatory requirement of the program, and consequently would be required to withdraw from the program.

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 them special permission. Special permission must be requested prior to the end of Course Add/Drop period.

Any absence or reduction in course load that may impact the regular progression of a student's program must have written approval by the Executive Director, Student Affairs.

The normal course load per term is 15 credits. Students in Satisfactory Standing may take up to 17 credits per term. Students whose CGPA is above 3.00 may request permission to take an overload. Overloads are **not** allowed in major Field Experience terms for students in the B.Ed. programs. Students in Probationary Standing take a maximum of 12 credits.

6.6.2 Time Limit and Credits for Completion of Degrees

Students are expected to complete their program no more than five (5) years after their initial registration for the B.Ed. degree and after four (4) years for the B.Sc.(Kinesiology) degree. Students who enter into a Freshman year become subject to these regulations one year after their initial registration. Students who exceed these limits must apply to the Faculty for permission to continue.

Students registered in the B.Ed. or B.Sc. are expected to complete the requirements of their programs and their degree within 150 or 120 credits respectively. Students will receive credits for all courses (subject to degree regulations) taken up to and including the semester in which they obtain the full degree credit requirements. Students who wish to remain at McGill beyond that semester must seek permission of the Executive Director, Student Affairs. Students who wish to exceed the specified minimum number of credits required for their degree must also seek permission of the Executive Director, Student Affairs. If permission is granted, credits over the limit will be flagged for no credit and the grades will not count in the CGPA.

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

6.6.3 Course Requirements

All required and complementary courses used to fulfil program requirements must be completed with a grade of C or better. Students who fail to obtain a satisfactory grade in a required course must either pass the supplemental examination if available, or repeat the course. If the failed course is a complementary course required by the program, a student may choose to replace it with another complementary course. If a student repeats a required course in which a D was received, credit will only be given once. A failure (F, J, KF, WF) in any level of Field Experience places a student in Unsatisfactory Standing, requiring withdrawal from the program. Further details on requirements for Field Experience are listed in *section 7: Student Teaching/Field Experience*.

6.6.4 Courses Taken as Transfer Credit

Students wishing to study away at a university outside of Quebec must obtain approval from their academic adviser and the Student Affairs Office prior to taking a transfer course. Students will only be permitted to take courses required to complete their program. Students are not permitted to take transfer courses during their graduating term. Please refer to *Programs, Courses and University Regulations > University Regulations and Resources > Undergraduate > : Transfer Credits* for further information.

6.6.5 Inter-University Transfer Credit

Students may, with the permission of their academic adviser, register at any university in the province of Quebec for three (3) or, exceptionally, six (6) credits per term in addition to their registration at McGill. Students will only be permitted to take courses required to complete their program. Students are not permitted to take transfer courses during their graduating term. Please refer to *Programs, Courses and University Regulations > University Regulations and Resources > Undergraduate > : Quebec Inter-University Transfer Agreement: McGill Students* for further information.

Note: This restriction does not apply to students in the Joint B.Ed. TFSL program.

6.6.6 Distance Education (online) Courses

A maximum of 6 credits of elective courses taught as distance education/online courses may be used toward the B.Ed. or B.Sc.(Kinesiology) degree at McGill. Courses taught through distance education/online may not be used to complete program requirements, including subject area courses for B.Ed. students, except on an individual basis when serious documented circumstances warrant it. In such cases, prior approval must be obtained from the student's program adviser and the Executive Director, Student Affairs.

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*, as well as the following website for Faculty-specific information: *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 providing some items of personal equipment.

6.7 Registration

All students register by Minerva, McGill's web-based registration system. For detailed information about registration, refer to *Programs, Courses and University Regulations > University Regulations and Resources > Undergraduate > : Registration*; *Welcome to McGill* at *www.mcgill.ca/newstudents*; the Student Affairs website, *www.mcgill.ca/edu-sao*; and to the Student Records website, *www.mcgill.ca/students/records*.

Students who fall into Unsatisfactory Standing at the end of the academic year will have their registration cancelled and may not re-register in the Faculty. Students who can provide proof of extenuating circumstances may appeal to the Executive Director, Student Affairs for readmission. Please refer to *Programs, Courses and University Regulations > University Regulations and Resources > Undergraduate > : Readmission* and to *www.mcgill.ca/edu-sao* for Faculty-specific information.

Students who have an outstanding fee balance from a previous term or outstanding fines will not be permitted to register. Students with financial problems should consult the Student Aid Office, Brown Student Services Building.

Students who decide not to return to McGill must withdraw from all of their courses on Minerva or inform the Student Affairs Office in writing. For further information, refer to *Programs, Courses and University Regulations > University Regulations and Resources > Undergraduate > : Regulations Concerning Course Withdrawal* and *: Regulations Concerning University Withdrawal*.

6.7.1 Course Registration

Students in Faculty of Education programs should register for the courses as outlined in the individual program overviews and advising material posted on the Student Affairs Office website, *www.mcgill.ca/edu-sao/new/advising* and *www.mcgill.ca/edu-sao/current/advising*. For more information on registration, see *Programs, Courses and University Regulations > University Regulations and Resources > Undergraduate > : Registration*.

Students in the B.Ed. programs who are required to be registered for Field Experience should consult *section 7: Student Teaching/Field Experience* for more information.

Some courses may require special permission. Students should consult the *Programs, Courses and University Regulations* publication and/or the Class Schedule on Minerva well in advance of the Course Change period to determine if permission is required of the instructor, the department, or the Faculty for any course they wish to take.

A number of courses have prerequisites that must be completed prior to course registration. Permission to waive a prerequisite requirement must be given in writing by an academic adviser.

6.7.2 Withdrawals

There are three course withdrawal periods, published on the University website, *www.mcgill.ca/importantdates*, and in *Programs, Courses and University Regulations > University Regulations and Resources > Undergraduate > : Regulations Concerning Course Withdrawal*. Students may, under exceptional circumstances, be granted permission to withdraw after the published deadlines. Such students should contact the Student Affairs Office for further information.

Students withdrawing from a Field Experience should refer to *section 7: Student Teaching/Field Experience*.

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 exceptional circumstances. Please refer to *section 7: Student Teaching/Field Experience*.

Students in B.Ed. programs should be aware that some Field Experiences may begin in August, some are held in the Spring, and some may overlap with the official exam period. In addition, some professional seminars follow unique schedules. It is the student's responsibility to consult the Class Schedule on Minerva. In the case of a conflict with a final exam, students will be excused from the Field Experience or professional seminar on the exam date.

6.9 Grading

During the first week of lectures, each instructor will provide students with a course outline that should include a description of the means of evaluation to be used in the course.

For further information on Grading, see *Programs, Courses and University Regulations > University Regulations and Resources > Undergraduate > : Grading and Grade Point Averages (GPA)*.

6.10 Incomplete Grades

An instructor who believes that there is justification for a student to delay submitting term work may extend the deadline until after the end of the course. In this case, the instructor will submit a grade of “K” (Incomplete), indicating the date by which the work is to be completed. The maximum extensions for the submission of grades to the Student Affairs Office are as follows: April 30 for Fall term courses; July 30 for Winter term courses; and November 30 for Summer courses. It is important to note that instructors may impose earlier deadlines than those listed. Please refer to *Programs, Courses and University Regulations > University Regulations and Resources > Undergraduate > : Incomplete Courses* for more information.

6.11 Examinations

Students should see *Programs, Courses and University Regulations > University Regulations and Resources > Undergraduate > : Examinations: General Information* for more information about final examinations and deferred examinations. The exam schedules are posted on the McGill website, *www.mcgill.ca/students/exams*, normally one month after the start of classes for the Tentative Exam Schedule, and two months after the start of classes for the Final Examination Schedule.

Students are warned not to make travel arrangements to leave Montreal prior to the scheduled end of any examination period.

6.11.1 Supplemental Examinations

Students who wish to write a supplemental examination for a course in which a supplemental examination is available must apply on Minerva within the published deadline. Please refer to the Student Information website, *www.mcgill.ca/students/exams*, for important information.

Students must be in Satisfactory or Probationary Standing and have received a final grade of D, J, F, or U in the course.

6.11.2 Reassessment and Rereads

In accordance with the Charter of Student Rights, and subject to the conditions stated therein, students have the right to consult any written submission for which they have received a mark and the right to discuss this submission with the examiner (see *Programs, Courses and University Regulations > University Regulations and Resources > Undergraduate > : Final Examinations: Reassessments and Rereads*).

The Faculty recognizes two types of reassessments or rereads:

1. Reassessment of coursework (term papers, mid-terms, assignments, quizzes, etc.);
2. Reread of a final exam.

6.11.3 Reassessment of Course Work

Reassessment of course work is administered by the course instructor or the offering department. Requests, made by students, must be made within 10 working days of the date of return of the graded materials. The reviewer will assess the fairness of the original grade rather than remark the assignment as he or she would have graded it. Reassessments should normally be completed within 20 working days of the request. Grades may be lowered or raised, or they may remain the same, as a result of the reassessment. The grade obtained on the reassessment takes precedence over the original grade.

6.11.4 Rereads of Final Exams or Final Term Papers or Projects

These rereads are administered by the Student Affairs Office, but conducted by the units involved. Students must apply in writing to the Student Affairs Office by March 31 for courses in the Fall term, June 30 for courses in the Winter, and by September 30 for Summer term courses (these deadlines are strictly enforced and no requests will be accepted past them). Students are assessed a fee of $35.00 for such rereads. It is strongly recommended, but not required, that students consult with the instructor of the course before requesting an official reread. The reviewer will assess the fairness of the original grade rather than remark the assignment as he or she would have graded it. Grades may be lowered or raised, or they may remain the same, as a result of the reread. The grade obtained on the reread takes precedence over the original grade.

Reassessments and rereads in courses not in the Faculty of Education are subject to the deadlines, rules, and regulations of the particular faculty.

6.12 Academic Standing

Academic Standing is based primarily on students' Cumulative Grade Point Average (CGPA), but may also be affected by their Term Grade Point Average (TGPA). For students in the B.Ed. programs, it is also based on their performance in the Field Experience courses. Academic Standing, which is assessed after the end of term, determines if students will be allowed to continue their studies in the next term and if any conditions will be attached to their registration.

Decisions about Academic Standing in the Fall term are based only on grades that are available in January. Grades for courses in which students have deferred examinations and Fall term grades for courses that span the Fall and Winter terms do not affect Academic Standing for the Fall term, even though they will ultimately affect students' Fall TGPA. Therefore, Academic Standing for the Fall term is designated as "Interim" and should be interpreted as advisory. **Interim Standing decisions are mentioned below only if the rules for them differ from those for regular Standing decisions.** Students who do not receive a Pass grade for a Fall term EDFE (Field Experience course) are placed in Unsatisfactory Standing. Permission may be granted to allow them to continue taking courses during the Winter term only.

6.12.1 Satisfactory/Interim Satisfactory Standing

Students in Interim Satisfactory or Satisfactory Standing:

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

6.12.2 Probationary/Interim Probationary Standing

6.12.2.1 Interim Probationary Standing at the end of the Fall term

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

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

6.12.2.2 Probationary Standing at the end of the Winter term

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

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

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

6.12.3 Unsatisfactory/Interim Unsatisfactory Standing

6.12.3.1 Interim Unsatisfactory standing at the end of the Fall term

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

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

6.12.3.2 Unsatisfactory Standing at the end of the Winter term

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

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

6.12.3.3 Readmitted Unsatisfactory Standing

Students who were previously in Unsatisfactory Standing and who were readmitted to the Faculty by the Executive Director, Student Affairs or the Committee on Student Standing will have their standing changed to Readmitted Unsatisfactory Standing. Their course load is specified at the time of readmission, as are the conditions they must meet to be allowed to continue in their program. They should see their departmental adviser to discuss their course selection.

6.12.3.4 Students will be placed in Unsatisfactory Standing (Winter or Summer term) or Interim Unsatisfactory Standing (Fall term)

- if their CGPA falls or remains below 1.50;
- if their TGPA falls below 2.50 and their CGPA is below 2.00 and they were previously in Probationary, Unsatisfactory Readmitted, or Interim Unsatisfactory Standing;
- if they receive a failure (F, J, KF, WF) in a student teaching/Field Experience course of any level;
- if they were previously in Unsatisfactory Standing and were readmitted to the Faculty by the Executive Director, Student Affairs or the Committee on Student Standing and have not at least satisfied the conditions to attain Probationary Standing that were specified in the letter of readmission.

Note: Students in either the Concurrent B.Sc. and B.Ed. or the B.Mus. and B.Ed. program who receive an F or J in any Education Field Experience course are placed in Unsatisfactory Standing. Although they may complete their term, they are required to withdraw from the Concurrent program. They may, however, contact the Faculties of Science or Music regarding application to a Bachelor of Science or a Bachelor of Music degree.

6.12.3.5 Readmission

Students should apply on Minerva by July 1 for readmission to the Fall term. Appeals for readmission by students in Unsatisfactory Standing should be addressed to the Executive Director, Student Affairs. Readmission will be considered only when proof of extenuating circumstances that affected academic performance can be provided (e.g., medical or other documentation).

Students in Unsatisfactory Standing for the second time must withdraw permanently. Students who were placed in Unsatisfactory Standing due to a failure in student teaching/Field Experience cannot apply for readmission for at least one full year and are advised to apply for readmission by April 15. Please refer to the Student Affairs Office website for further information: *www.mcgill.ca/edu-sao/current/transfers*.

6.12.3.6 Incomplete Standings

- Must clear K's, L's, or Supplementals
- To Be Determined
- Incomplete

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 Course Change period for that term. Students whose Incomplete Standing changes to Satisfactory, Probationary, or Interim Unsatisfactory Standing may continue in the program. Students whose Standing changes to Unsatisfactory may not continue in their program.

Students whose Standing changes to Unsatisfactory and who wish to ask for permission to continue in their program must make a request to the Associate Dean of Student Affairs as soon as they are placed in Unsatisfactory Standing. Readmission will be considered only when proof of extenuating circumstances that affected academic performance can be provided (e.g., medical or other documentation).

Students whose Standing is still Incomplete by the end of the Course Change period should immediately consult with the Student Affairs Office.

6.13 Graduation Requirements

To be eligible for a B.Ed. or the B.Sc.(Kinesiology) degree, students must fulfil all Faculty and program requirements. This includes completing the minimum credit requirements for the degree as stipulated in the letter of acceptance; obtaining a grade of C or better in all required and complementary courses; and achieving a minimum cumulative grade point average (CGPA) of 2.00. Students must satisfactorily complete a minimum of 60 credits at McGill University toward the fulfilment of the degree requirements. In addition, students must complete specific components of their program at McGill.

Students enrolled in Kinesiology and Physical Education programs are required, before the end of their final year of study, to show proof of certification in Standard Level Safety Oriented First Aid, and Level C in Cardiopulmonary Resuscitation, or equivalencies.

Students must complete their degree requirements within five (5) years after their initial registration for the B.Ed. degree and within four (4) years after their initial registration for the B.Sc.(Kinesiology) degree. Students in the part-time B.Ed. for Certified Teachers program are allowed a maximum of 12 years to complete the requirements for the degree.

It is the student's responsibility to ensure that all Faculty requirements are met before graduation.

Early in their graduating year, all students should check with their adviser to make sure that they will meet all program requirements in time for graduation. It is essential that students in their final year indicate the expected date of graduation by applying for graduation on Minerva; see *Programs, Courses and University Regulations > University Regulations and Resources > Undergraduate > : Graduation* for more information. During the graduation approval process, students can query their graduation record on Minerva to verify that the Faculty has approved their graduation. When a final-year student changes the expected date of graduation, the student must notify the Student Affairs Office immediately. It is also the student's responsibility to complete the required forms for teacher certification, and to check that his/her graduation has been approved. Further information is available on the Student Affairs Office website: *www.mcgill.ca/edu-sao*.

Students are not permitted to take courses outside McGill University during the last term prior to graduation. Students who fail to graduate as expected and who do not re-register must apply to the Executive Director, Student Affairs to graduate. Application to graduate must be made sufficiently in advance of the expected graduation date to allow the Faculty to verify the student's record.

Information pertaining to the convocation ceremonies can be obtained on the McGill website: *www.mcgill.ca/students/graduation/convocation*.

6.14 Undergraduate Program Awards

6.14.1 Dean's Honour List Designation for Graduating Students

The designation Dean's Honour List may be awarded to graduating students under the following conditions:

- Students must be among the top 10% of the Faculty's graduating students.
- Students must have completed a minimum of 60 McGill credits to be considered.
- The designation is based on the cumulative academic record (CGPA).

6.14.2 Dean's Honour List Designation for In-course Students

The designation Dean's Honour List may be awarded to in-course students under the following conditions:

- Students must be among the top 10% of the Faculty's students.
- Students must have completed at least 27 graded credits during the academic year.
- The designation is based on the sessional (Fall and Winter) GPA.

6.14.3 Scholarships and Awards

Various scholarships and awards are open to both graduating and in-course students. For more information, consult the Scholarships and Student Aid website at *www.mcgill.ca/studentaid/scholarships*.

7 Student Teaching/Field Experience

The **Office of Student Teaching (OST)**, *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* 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* 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* 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*). 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.

7.3 Student Responsibilities

Students are responsible for familiarizing themselves with the policies and rules governing all aspects of Field Experience, including pedagogical and professional behaviour, available at *www.mcgill.ca/ost*.

Students should not engage in any type of employment during Field Experience, nor register for any course that might interfere with the successful outcome of a Field Experience.

7.3.1 Guidelines (Syllabus)

Detailed guidelines and evaluation forms for every Field Experience are posted on the OST website, arranged by program and year. Students are responsible for familiarizing themselves with the objectives, evaluation criteria, and forms for each level of Field Experience, and must submit all completed evaluation forms to the OST on the first business day following the end of the Field Experience in order to receive a grade.

7.3.2 Attendance and Absences

Punctual attendance is required at the assigned school for the entire Field Experience. Alternate dates cannot be arranged at the request of the student. Unexcused absences from intensive courses and professional seminars may result in exclusion from the course, course failure, and/or removal from any associated Field Experience.

Days absent due to illness or McGill exams must be made up at the end of the Field Experience. Absences due to illness require a valid medical note (see *www.mcgill.ca/studenthealth/clinic/notes*) to be submitted to the OST, and the outcome of the Field Experience will be evaluated on an individual basis. Student teachers must contact the following people as soon as possible on the morning of the day of their absence:

- School office
- Cooperating teacher
- Office of Student Teaching, telephone 514-398-7046
- Field supervisor

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

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

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

7.3.3 Judicial Record Verification

See *section 6: Faculty Regulations for Undergraduate Programs* > *section 6.5: Judicial Record Verification for Students in the Bachelor of Education Programs* for information on the requirement to obtain this security clearance. Additional information can be found on the OST website.

7.3.4 Work Permit for International Students

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

7.4 Grading and Credit

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

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

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

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

7.4.1 Termination of Field Experience

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

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

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

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

Possible outcomes are:

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

If a student cannot continue the Field Experience due to illness, see *section 7.4.2: Withdrawal from Field Experience*.

If a student chooses to end his or her Field Experience, the Director of Student Teaching will evaluate the circumstances and determine an outcome. Possible outcomes are the same as those listed above.

7.4.2 Withdrawal from Field Experience

- Withdrawal (with refund) for any reason must be done at least two weeks before the start date of the Field Experience. The student is responsible for notifying the OST in writing by this deadline.
- Students having to withdraw for any reason, including illness, from a Field Experience that begins in less than two weeks or that is underway must immediately inform the OST. Based on the circumstances of the withdrawal, the Director of the OST will determine the final outcome of the Field Experience and the Student Affairs Office will determine eligibility for refund.

7.4.3 Transfer Credit

Students who previously completed a Field Experience at another local university may be eligible for transfer credit (Advanced Standing) for Field Experience 1 only. Contact an academic adviser to discuss this possibility. Students may need to submit a syllabus for the course so that the OST can determine equivalency.

For general information about transfer credits at McGill, see *www.mcgill.ca/students/transfercredit*, as well as Faculty-specific information at *www.mcgill.ca/edu-sao/new/advancedstanding*.

7.5 Code of Professional Conduct: Code of Ethics for Student Teachers

7.5.1 Preamble – A Student-Centred Perspective

- **Mandate**

  A joint subcommittee consisting of members from two standing committees of the Faculty of Education (Faculty of Education Ethical Review Board and Student Standing) was created to develop a Code of Ethics for Student Teachers and to examine the ways in which this Code will be communicated to students, faculty members, and educational partners.

- **Goals and Rationale**

  The interests of the two Standing Committees of the Faculty of Education in promoting appropriate ethical and professional conduct have led us to develop the following Code of Ethics for Student Teachers. This code seeks to respond to and address the following needs:

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 University handbooks as well as all local agreements by host school boards and schools.

7. Balancing Harm and Benefits

   - Acknowledges that any potentially harmful practices (e.g., science labs and physical education activities) must be balanced with anticipated benefits and conducted in a prudent, informed manner.

7.5.5 Putting Principles into Practice: Venues for Communication

More than one principle may apply to a given case or situation. For meaningful and effective implementation of these principles, they must be widely communicated and applied in appropriate contexts.

8 Department of Educational and Counselling Psychology

8.1 Location

Faculty of Education
3700 McTavish Street, Room 614
Montreal, Quebec H3A 1Y2

Telephone: 514-398-4242
Fax: 514-398-6968
Website: *www.mcgill.ca/edu-ecp*

8.2 About the Department of Educational and Counselling Psychology

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

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

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

Dean Thomson
Undergraduate Program Coordinator
Telephone: 514-398-4248
Email: *dean.thomson@mcgill.ca*

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

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

8.3 Department of Educational and Counselling Psychology Faculty

Emeritus Professors

Mark W. Aulls; B.S.(Ball St.), M.Ed.(Ind.), Ph.D.(Georgia)

Janet G. Donald; B.A., M.A.(W. Ont.), Ph.D.(Tor.) (*joint appt. with Teaching and Learning Services*)

Florent R. Dumont; A.B.(Col.), M.S.(S. Conn. St.), Ed.D.(Mass.)

Carl H. Frederiksen; B.A.(Harv.), M.A., Ph.D.(Ill.)

Lynn McAlpine; B.A.(McG.), M.A.(C'dia.), Ph.D.(Tor.)

Bruce M. Shore; B.Sc., M.A.(McG.), Ph.D.(Calg.)

Professors

Roger Azevedo; B.A., M.A.(C'dia), Ph.D.(McG.), (*Canada Research Chair, Tier 1*)

Robert J. Bracewell; B.Sc., M.A.(McM.), Ph.D.(Tor.)

Jacob A. Burack; B.A.(Col.), M.S., M.Phil., Ph.D.(Yale)

Jeffrey L. Derevensky; B.A.(C. W. Post), M.A., Ph.D.(McG.)

Nancy L. Heath; B.A.(McG.), M.Ed.(Ott.), Ph.D.(Tor.) (*James McGill Professor*)

Susanne P. Lajoie; B.A., M.A.(McG.), Ph.D.(Stan.), (*Canada Research Chair, Tier 1*)

Alenoush Saroyan; B.A.(Pahlavi), M.Ed.(Loyola-Ill.), Ph.D.(McG.)

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

Associate Professors

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

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

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

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

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

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

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

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

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

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

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

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

Assistant Professors

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

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

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

Annett Körner; M.A., Ph.D.(Leipzig)

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

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

Faculty Lecturer

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

Associate Member

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

Associate Professor (Non-Tenure Track)

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

Adjunct Professors

Dermot Bowler

Karen Cohen-Gazith

Yves de Roten

Thomas Goetz

Judith Gradinger

Calvin Kalman

Katherine Moxness

Judith Norton

Rhoda Root

Erica Shoshana Ross

Anastassios Stalikas

Jessica Toste

Helen-Maria Vasiliadis

Harold Wynne

Research Associates

Rina Gupta

Jasvinder Magon

Diana Tabatabai

Laura Winer

9 Department of Integrated Studies in Education

9.1 Location

Faculty of Education
3700 McTavish Street, Room 244
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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*.

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)

Associate Professors

Helen Amoriggi; B.Sc., M.A.(Rhode Is.), Ed.D.(Boston)

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

Jon G. Bradley; B.A., M.A.(Sir G. Wms.)

Eric Caplan; B.A.(Tor.), M.A.(Hebrew), Ph.D.(McG.)

Steven Jordan; B.A.(Kent), M.Sc.(Lond.), Ph.D.(McG.)

Bronwen Low; B.A.(Qu.), M.A.(Br. Col.), Ph.D.(York)

Kevin McDonough; B.A., B.Ed., M.Ed.(Alta.), Ph.D.(Ill.)

Ronald Morris; B.Ed., M.A., Ph.D.(McG.)

Caroline Riches; B.A., M.Sc.(Alta.), Ph.D.(McG.)

Mela Sarkar; B.A.(McG.), M.A., Ph.D.(C'dia)

Gale Seiler; B.Sc.(Fairleigh Dickinson), M.Sc.(Montana), Ph.D.(Penn.)

Shaheen Shariff; B.A., M.A., Ph.D.(S. Fraser)

Doreen Starke-Meyerring; B.Ed.(Potsdam), M.A.(N. Dakota), Ph.D.(Minn.)

Teresa Strong-Wilson; B.A.(Calg.), B.A., Dip.Ed.(McG.), M.A., Ph.D.(Vic., BC)

Georges Terroux; B.A.(Montr.), M.A.(Essex), Ph.D.(Montr.) (*Post-retirement*)

Carolyn E. Turner; B.A.(Ariz.), M.Ed., Ph.D.(McG.)

Boyd White; B.A.(Sir G. Wms.), B.F.A.(C'dia), M.F.A.(Inst. Allende, Guanajuato), Ph.D.(C'dia)

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

Assistant Professors

Anila Asghar; M.S.(Punjab), M.A.(Col.), M.Ed., Ed.D.(Harv.)

Spencer Boudreau; B.A.(Don Bosco), B.A., M.A.(Sher.), Ph.D.(C'dia)

Abdul Aziz Choudry; Grad.Dip., Ph.D.(C'dia)

Kara Jones Jackson; B.A.(Bates Col.), M.A., Ph.D.(Penn.)

Marta Kobiela; B.S., M.S. (Texas A&M), Ph.D.(Vanderbilt)

Connie Morrison; B.A., B.Ed.(New Br.), M.Ed., Ph.D.(Nfld.)

Annie Savard; B.Ed., M.A., Ph.D.(Laval)

Sylvia Sklar; Dip.Ed.(McG.), B.A.(C'dia), M.Ed.(McG.)

Paul Zanazanian; B.A., M.A.(McG.), Ph.D.(Montr.), Post Doc(Laval)

Associate Member

Adrienne Carey Hurley; B.A.(Colo.), M.A.(Mich.), Ph.D.(Calif.)

Faculty Lecturers

Beverly Baker; B.A., B.Com.(St. Mary's), B.Ed.(McG.), M.A.(C'dia), Ph.D.(McG.)

Charlotte Hussey; B.A.(Wheaton), M.A.(C’dia), M.F.A.(W. Wilson), Ph.D.(McG.)

Donna-Lee Smith; B.A., M.A.(C'dia)

Lisa Trimble; B.A.(W. Laur.), M.A.(McG.)

9.4 Overview of Programs (Integrated Studies in Education)

The following is an overview of programs offered by the Department of Integrated Studies in Education.

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*).

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*.

The Department also offers graduate certificates in Leadership and Teaching English as a Second Language. See *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;

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.

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

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/) 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

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/), 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 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

Language Course (3 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 select either EDEC 203 or CEAP 250

Complementary Courses (12 credits)

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

Literature (6 credits)

Cultural Studies (3 credits)

Drama/Theatre (3 credits)

9.6 Bachelor of Education (B.Ed.) - Secondary Mathematics (120 credits)

The Bachelor of Education (B.Ed.) – Secondary Mathematics 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 Mathematics program provides students with the learning opportunities needed to become proficient Mathematics 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 Mathematics, 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.

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 Area (54 credits)

Secondary Mathematics students complete 54 credits selected in consultation with the Program Adviser in one of two options. They are expected to have completed the prerequisite courses MATH 133, MATH 140, and MATH 141 or their equivalents. Freshman students will take them as part of their Freshman program.

Students entering from CEGEP should only choose this program if they have a strong background in their CEGEP Mathematics courses. The 100-level prerequisite courses (MATH 133, MATH 140, and MATH 141) are considered CEGEP level and only students entering a five-year program (out-of-province and directly from high school) are eligible to take them. Students entering with Advanced Standing without having completed these prerequisites will be required to make up any deficiencies in these courses over and above the degree requirements.

Option 1

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

27 credits from the list of "Complementary Mathematics Courses"

Or

Option 2:

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

9 credits from the list of "Complementary Mathematics Courses"

And

18 credits of designated courses in another "teachable" subject area (English, Social Sciences, or Science and Technology - see these Secondary Education programs for courses)

Students must also take:

3 credits of Secondary Teaching Methods for the teachable subject area

(Note: This additional Methods course counts as a 3-credit elective in the program.)

Students in the English Secondary Profile who select Mathematics as their other "teachable subject area" take:

18 credits from the list of "Mathematics Courses for Other Secondary Subject Areas"

And

3 credits of "Secondary Teaching Methods - Mathematics"

(Note: This additional Methods course counts as a 3-credit elective in the program.)

Required Mathematics Courses

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

MATH 223	(3)	Linear Algebra
MATH 315	(3)	Ordinary Differential Equations
MATH 323	(3)	Probability
MATH 324	(3)	Statistics
MATH 348	(3)	Topics in Geometry

Electives (6 credits)

6 credits of electives

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

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

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

The aim of the B.Ed. Secondary Education Program is to prepare strong beginning teachers for the secondary school level. This integrated program consists of 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, Ethics and Religious Culture program provides students with the learning opportunities needed to become proficient Social Science teachers with a strong knowledge base in the associated disciplinary areas.

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

Freshman Program

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

The Freshman year is the time to take introductory-level courses in a teachable subject area, as well as to explore areas that are not normally taken as 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 History, Geography and Religious Studies courses that may be used toward the academic component of the Secondary Social Sciences 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
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
GEOG 200	(3)	Geographical Perspectives: World Environmental Problems
GEOG 205	(3)	Global Change: Past, Present and Future
GEOG 210	(3)	Global Places and Peoples
HIST 202	(3)	Survey: Canada to 1867
HIST 203	(3)	Survey: Canada since 1867
HIST 214	(3)	Introduction to European History

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)
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 - 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

RELG 270	(3)	Religious Ethics and the Environment

Electives (6 credits)

6 credits:

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 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 History, Geography, and Religious Studies courses that may be used toward the academic component of the Secondary Social Sciences 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
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
GEOG 200	(3)	Geographical Perspectives: World Environmental Problems
GEOG 205	(3)	Global Change: Past, Present and Future
GEOG 210	(3)	Global Places and Peoples
HIST 202	(3)	Survey: Canada to 1867
HIST 203	(3)	Survey: Canada since 1867
HIST 214	(3)	Introduction to European History
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)
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 - Social Sciences

6 credits:

EDES 334	(3)	Teaching Secondary Social Studies 1
EDES 434	(3)	Teaching Secondary Social Studies 2

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

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

36 credits of History and Citizenship courses

9 credits of "Required History" courses from the list

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 of Geography chosen from the "Geography" course list or chosen from the courses that comprise the B.A. Minor Concentration Geography program.

Required History

9 credits selected from:

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 choose a minimum of 3 credits of ECON and a minimum of 3 credits of 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

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

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

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

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

Freshman Program - Basic Sciences

Students who start their Education program in U0 normally complete 30 credits in their Freshman year.

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

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

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

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

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

6 credits

EDES 335	(3)	Teaching Secondary Science 1
EDES 435	(3)	Teaching Secondary Science 2

Secondary Science and Technology (54 credits)

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

- the Material World

- Earth and Space

- the Living World

- the Technological World

Note: Students entering this program from CEGEP should have completed the basic science equivalents in CEGEP. The 100-level basic sciences are considered CEGEP level and only students entering a five-year program (out-of-province and directly from high school) are eligible to take them. Students entering with advanced standing without having completed these prerequisites (or their equivalents) will be required to make up any deficiencies in these courses over and above the degree requirements.

Overview of the 54 credits for the program:

A minimum of 12 credits at the 300-level or above;

39 credits of courses across the four subject areas:

- 3 credits of Statistics

- 3 credits of History of Science

- 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 Word

- 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

History of Science

3 credits:

EDTL 520	(3)	Perspectives on Knowledge in Mathematics and Science

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

ENVR 201	(3)	Society, Environment and Sustainability
ENVR 203	(3)	Knowledge, Ethics and Environment
ENVR 301	(3)	Environmental Research Design
GEOG 200	(3)	Geographical Perspectives: World Environmental Problems
GEOG 203	(3)	Environmental Systems
GEOG 205	(3)	Global Change: Past, Present and Future
GEOG 221	(3)	Environment and Health

The Material World - Required

Students complete 9 credits of required courses on the Material World as specified below.

CHEM 281	(3)	Inorganic Chemistry 1

One of:

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

One of :

CHEM 211	(3)	Organic Chemistry 1 Lectures
CHEM 212	(4)	Introductory Organic Chemistry 1
CHEM 232	(4)	Organic Chemistry Principles

The Material World - Complementary

Students select 0 to 15 credits of complementary courses on the Material World.

* Note: If CHEM 287 is selected, CHEM 297 must also be taken.

CHEM 222	(4)	Introductory Organic Chemistry 2
CHEM 243	(2)	Introductory Physical Chemistry 2
CHEM 253	(1)	Introductory Physical Chemistry 1 Laboratory
CHEM 263	(1)	Introductory Physical Chemistry 2 Laboratory
CHEM 287*	(2)	Introductory Analytical Chemistry
CHEM 297*	(1)	Introductory Analytical Chemistry Laboratory
CHEM 302	(3)	Introductory Organic Chemistry 3
CHEM 319	(3)	Chemistry of Energy, Storage and Utilization
CHEM 381	(3)	Inorganic Chemistry 2
CHEM 392	(3)	Integrated Inorganic/Organic Laboratory
MATH 222	(3)	Calculus 3
PHYS 224	(3)	Physics of Music
PHYS 230	(3)	Dynamics of Simple Systems
PHYS 232	(3)	Heat and Waves
PHYS 241	(3)	Signal Processing
PHYS 242	(2)	Electricity and Magnetism
PHYS 257	(3)	Experimental Methods 1

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 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.

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/.

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

List of Approved Freshman Science Courses

Select the approved courses according to the instructions above.

Note:

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

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

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

First calculus course, one of:

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

MATH 150	(4)	Calculus A

Second calculus course, one of:

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

First physics course, one of:

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

Second physics course, one of:

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

Electives

Students wishing to take elective courses may choose them from introductory courses offered by departments in the Faculties of Science or of Arts. A list of recommended courses is found at http://www.mcgill.ca/science/sousa/new_students/u0/bsc_freshman/approved/. 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/ 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 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.

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 degree in Cell/Molecular 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

69 credits of Science Component consisting of:

- 36 credits of Major Concentration Biology - Cell/Molecular

- 18 credits of 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.

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/.

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

List of Approved Freshman Science Courses

Select the approved courses according to the instructions above.

Note:

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

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

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

First calculus course, one of:

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

Second calculus course, one of:

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

First physics course, one of:

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

Second physics course, one of:

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

Electives

Students wishing to take elective courses may choose them from introductory courses offered by departments in the Faculties of Science or of Arts. A list of recommended courses is found at http://www.mcgill.ca/science/sousa/new_students/u0/bsc_freshman/approved/. 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/ 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 Biology - Cell/Molecular (36 credits)

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

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

Required Courses*

29 credits selected as follows:

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

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

Complementary Courses

At least 7 credits selected from:

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

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

Minor Physics (18 credits)

Required Course

3 credits

PHYS 257	(3)	Experimental Methods 1

Complementary Courses

15 credits to be selected as follows:

One of:

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

One of:

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

One of:

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

One of:

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

One of:

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

Additional Science Courses (15 credits)

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

Electives (6 credits)

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

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

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

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

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

Graduates of the B.Ed. degree are recommended by the University to the Quebec Ministère de l'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 Chemistry is one of the nine variations of the program and allows students to focus their Science degree in Organismal 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 - Organismal

- 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 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.

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/bsc/freshman.

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

List of Approved Freshman Science Courses

Select the approved courses according to the instructions above.

Note:

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

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

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

First calculus course, one of:

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

Second calculus course, one of:

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

First physics course, one of:

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

Second physics course, one of:

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

Electives

Students wishing to take elective courses may choose them from introductory courses offered by departments in the Faculties of Science or of Arts. A list of recommended courses is found at http://www.mcgill.ca/science/sousa/new_students/u0/bsc_freshman/approved/. 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/ 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 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
CHEM 212*	(4)	Introductory Organic Chemistry 1
CHEM 222*	(4)	Introductory Organic Chemistry 2
CHEM 253	(1)	Introductory Physical Chemistry 1 Laboratory
CHEM 281	(3)	Inorganic Chemistry 1
CHEM 287	(2)	Introductory Analytical Chemistry
CHEM 297	(1)	Introductory Analytical Chemistry Laboratory

Additional Science Courses (15 credits)

15 credits selected as follows:

12 credits:

BIOL 210	(3)	Perspectives of Science
CHEM 381	(3)	Inorganic Chemistry 2
MATH 203	(3)	Principles of Statistics 1
MATH 222	(3)	Calculus 3

plus 3 credits, one of:

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

Electives (6 credits)

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

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

9.13 Concurrent Bachelor of Science (B.Sc.) and Bachelor of Education (B.Ed.) - Major Concentration Biology - Organismal 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 - 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 SOUSA website at http://www.mcgill.ca/science/sousa. Academic advising is also available by email. The address is 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/.

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

List of Approved Freshman Science Courses

Select the approved courses according to the instructions above.

Note:

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

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

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

First calculus course, one of:

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

Second calculus course, one of:

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

First physics course, one of:

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

Second physics course, one of:

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

Electives

Students wishing to take elective courses may choose them from introductory courses offered by departments in the Faculties of Science or of Arts. A list of recommended courses is found at http://www.mcgill.ca/science/sousa/new_students/u0/bsc_freshman/approved/. 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/ 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 Biology - Organismal (37 credits)

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

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

Required Courses*

28 credits selected as follows:

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

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

Complementary Courses

9 credits selected from:

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

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

Minor Physics (18 credits)

Required Course

3 credits

PHYS 257	(3)	Experimental Methods 1

Complementary Courses

15 credits to be selected as follows:

One of:

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

One of:

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

One of:

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

One of:

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

One of:

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

Additional Science Courses (15 credits)

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

Electives (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.

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 being admitted to this program.

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

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

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

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

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

60 credits of Education Component

69 credits of Science Component consisting of:

- 36 credits of the Major Concentration Chemistry

- 24 credits of the Minor Biology

- 9 credits of Additional Science Courses

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

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

B.Sc. Freshman Program

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

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/.

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

List of Approved Freshman Science Courses

Select the approved courses according to the instructions above.

Note:

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

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

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

First calculus course, one of:

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

Second calculus course, one of:

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

First physics course, one of:

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

Second physics course, one of:

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

Electives

Students wishing to take elective courses may choose them from introductory courses offered by departments in the Faculties of Science or of Arts. A list of recommended courses is found at http://www.mcgill.ca/science/sousa/new_students/u0/bsc_freshman/approved/. 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/ 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 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

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

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

Complementary Courses

18 credits selected from:

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

Minor Biology (24 credits)

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

9 credits selected from the Biology Department's course offerings, at the 300 level or above.

Additional Science Courses (9 credits)

BIOL 210	(3)	Perspectives of Science
MATH 203	(3)	Principles of Statistics 1
MATH 222	(3)	Calculus 3

Electives (6 credits)

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

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

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

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

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

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

The Major Concentration Chemistry with Minor 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.

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/.

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

List of Approved Freshman Science Courses

Select the approved courses according to the instructions above.

Note:

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

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

BIOL 111	(3)	Principles: Organismal Biology
BIOL 112	(3)	Cell and Molecular Biology
CHEM 110	(4)	General Chemistry 1
CHEM 115*	(4)	Accelerated General Chemistry: Giants in Science
CHEM 120*	(4)	General Chemistry 2
COMP 202	(3)	Foundations of Programming

ESYS 104	(3)	The Earth System
MATH 133	(3)	Linear Algebra and Geometry
PSYC 100	(3)	Introduction to Psychology

First calculus course, one of:

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

Second calculus course, one of:

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

First physics course, one of:

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

Second physics course, one of:

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

Electives

Students wishing to take elective courses may choose them from introductory courses offered by departments in the Faculties of Science or of Arts. A list of recommended courses is found at http://www.mcgill.ca/science/sousa/new_students/u0/bsc_freshman/approved/. 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/ 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 Chemistry (36 credits)

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

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

Required Courses*

18 credits selected as follows:

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

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

CHEM 297	(1)	Introductory Analytical Chemistry Laboratory

Complementary Courses

18 credits selected from:

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

Minor Physics (18 credits)

Required Course

3 credits

PHYS 257	(3)	Experimental Methods 1

Complementary Courses

15 credits to be selected as follows:

One of:

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

One of:

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

One of:

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

One of:

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

One of:

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

Additional Science Courses (15 credits)

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

Electives (6 credits)

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

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

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/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.

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/.

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

List of Approved Freshman Science Courses

Select the approved courses according to the instructions above.

Note:

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

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

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

First calculus course, one of:

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

Second calculus course, one of:

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

First physics course, one of:

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

Second physics course, one of:

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

Electives

Students wishing to take elective courses may choose them from introductory courses offered by departments in the Faculties of Science or of Arts. A list of recommended courses is found at http://www.mcgill.ca/science/sousa/new_students/u0/bsc_freshman/approved/. 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/ 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

9-10 credits of complementary courses, CHEM 212 and 6 selected from the Biology Department's course offerings, at the 300 level or above.

* Note: Students who have already taken CHEM 212 or its equivalent will choose another appropriate course, to be approved by the Adviser.

CHEM 212*	(4)	Introductory Organic Chemistry 1

Additional Science Courses (9 credits)

9 credits selected as follows:

6 credits:

BIOL 210	(3)	Perspectives of Science
MATH 203	(3)	Principles of Statistics 1

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

Electives (6 credits)

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

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

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

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

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

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

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

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

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

60 credits of Education Component

69 credits of Science Component consisting of:

- 36 credits of the Major Concentration Physics

- 18 credits of the Minor Chemistry

- 15 credits of Additional Science Courses

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

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

B.Sc. Freshman Program

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

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/.

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

List of Approved Freshman Science Courses

Select the approved courses according to the instructions above.

Note:

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

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

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

First calculus course, one of:

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

Second calculus course, one of:

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

First physics course, one of:

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

Second physics course, one of:

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

Electives

Students wishing to take elective courses may choose them from introductory courses offered by departments in the Faculties of Science or of Arts. A list of recommended courses is found at http://www.mcgill.ca/science/sousa/new_students/u0/bsc_freshman/approved/. 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/ 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

* 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 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 Physics Department.

Electives (6 credits)

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

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

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

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

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

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

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

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

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

60 credits of Education Component

54 credits of Science Component consisting of:

- 54 credits of the Major Mathematics

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

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

B.Sc. Freshman Program

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

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/.

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

List of Approved Freshman Science Courses

Select the approved courses according to the instructions above.

Note:

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

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

BIOL 111	(3)	Principles: Organismal Biology
BIOL 112	(3)	Cell and Molecular Biology
CHEM 110	(4)	General Chemistry 1
CHEM 115*	(4)	Accelerated General Chemistry: Giants in Science
CHEM 120*	(4)	General Chemistry 2
COMP 202	(3)	Foundations of Programming

ESYS 104	(3)	The Earth System
MATH 133	(3)	Linear Algebra and Geometry
PSYC 100	(3)	Introduction to Psychology

First calculus course, one of:

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

Second calculus course, one of:

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

First physics course, one of:

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

Second physics course, one of:

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

Electives

Students wishing to take elective courses may choose them from introductory courses offered by departments in the Faculties of Science or of Arts. A list of recommended courses is found at http://www.mcgill.ca/science/sousa/new_students/u0/bsc_freshman/approved/. 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/ 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 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.

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

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

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

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

The B.Mus. Major Music Education program in the Schulich School of Music focuses on the development of the prospective music educator as a musician. This is achieved not only through core music history, theory, musicianship, and performance courses but also through different instrumental, vocal, and conducting techniques courses. Laboratory experiences provide an opportunity to develop facility with basic music rehearsing/teaching techniques, with emphasis on the ability to diagnose and correct technical and musical problems. The B.Ed. Music Elementary and Secondary program in the Faculty of Education focuses on the development of the musician as an educator. This is achieved through courses in educational foundations, music pedagogy and pedagogical support, and a practicum component comprised of four field experiences and supporting professional seminars.

Students who decide to complete only a Bachelor of Music may transfer at any time into the Bachelor of Music, Faculty Program. Students who wish to complete only the Bachelor of Education Music program have the option of doing so after the successful completion of the first two years of the Concurrent Program and MUIN 283 "BMus Concentration Final Examination" or equivalent. They would be required to complete 61 music credits, 6 elective credits, and 55 education credits from the program given below.

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

55 professional Education credits

70 Music academic credits

9 music elective credits

3 non-music elective credits

Program Prerequisites - Freshman Program

33 credits

Prerequisite Courses

33 credits distributed as follows:

4 credits (2 credits per term) Basic Ensemble Training

6 credits of Non-Music Electives

and 23 credits in the following course list:

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

MUHL 186	(3)	Western Musical Traditions
MUIN 180	(3)	BMus Practical Lessons 1
MUIN 181	(3)	BMus Practical Lessons 2

MUPD 135	(1)	Music as a Profession 1
MUPD 136	(1)	Music as a Profession 2
MUSP 140	(2)	Musicianship Training 1
MUSP 141	(2)	Musicianship Training 2
MUSP 170	(1)	Musicianship (Keyboard) 1
MUSP 171	(1)	Musicianship (Keyboard) 2
MUTH 150	(3)	Theory and Analysis 1
MUTH 151	(3)	Theory and Analysis 2

Required Music Components (49 credits)

49 credits of required Music courses distributed as follows:

25 credits of Music Education

11 credits of Theory

4 credits of Musicianship

3 credits of Music History

6 credits of Performance

Music Education

25 credits:

MUCT 235	(3)	Vocal Techniques
MUGT 215	(1)	Basic Conducting Techniques
MUGT 354	(3)	Music for Children
MUGT 358	(3)	General Music for Adults and Teenagers
MUGT 401	(3)	Issues in Music Education
MUIT 202	(3)	Woodwind Techniques
MUIT 203	(3)	Brass Techniques
MUIT 204	(3)	Percussion Techniques
MUIT 356	(3)	Jazz Instruction: Philosophy and Techniques

Theory

11 credits:

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

Musicianship

4 credits:

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

Music History

3 credits:

MUHL 286	(3)	Critical Thinking About Music

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)

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*. 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*. 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

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.

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 (75 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 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 - Physical Education or English Second Language

0-3 credits from:

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

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

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

Kindergarten & Elementary Education - Subject Areas (21 credits)

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

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

And

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

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

Art

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

EDEA 204	(3)	Drawing
EDEA 205	(3)	Painting 2
EDEA 241	(3)	Basic Art Media for Classroom
EDEA 296	(3)	Basic Design
EDEA 304	(3)	Painting 3
EDEA 305	(3)	Painting 4
EDEA 307	(3)	Drawing 2
EDEA 410	(3)	Aesthetics and Art for the Classroom
EDEA 496	(3)	Sculpture 1
EDEA 497	(3)	Sculpture 2

English

Students may select up to 12 credits from this list.

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

CLAS 203	(3)	Greek Mythology
COMS 200	(3)	History of Communication
COMS 210	(3)	Introduction to Communication Studies
COMS 300	(3)	Media and Modernity in the 20th Century
COMS 310	(3)	Media and Feminist Studies
COMS 320	(3)	Media and Empire
COMS 330	(3)	Media in Cultural Life
EDEE 325*	(3)	Children's Literature
EDES 366	(3)	Literature for Young Adults
EDSL 350	(3)	Essentials of English Grammar

ENGL 200	(3)	Survey of English Literature 1
ENGL 201	(3)	Survey of English Literature 2
ENGL 215	(3)	Introduction to Shakespeare
ENGL 225	(3)	American Literature 1
ENGL 226	(3)	American Literature 2
ENGL 227	(3)	American Literature 3
ENGL 228	(3)	Canadian Literature 1
ENGL 229	(3)	Canadian Literature 2
ENGL 230	(3)	Introduction to Theatre Studies
ENGL 237	(3)	Introduction to Study of a Literary Form
ENGL 279	(3)	Introduction to Film as Art
ENGL 280	(3)	Introduction to Film as Mass Medium
ENGL 314	(3)	20th Century Drama
ENGL 345	(3)	Literature and Society
ENGL 347	(3)	Great Writings of Europe 1
ENGL 349	(3)	English Literature and Folklore 1
ENGL 386	(3)	Fans, Celebrities, Audiences
ENGL 388	(3)	Studies in Popular Culture
LING 200	(3)	Introduction to the Study of Language
LING 201	(3)	Introduction to Linguistics

Ethics and Religious Culture

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

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

EDER 209	(3)	Search for Authenticity
EDER 252	(3)	Understanding and Teaching Jewish Life
EDER 309	(3)	The Religious Quest
EDER 394	(3)	Philosophy of God
EDER 395	(3)	Moral Values and Human Action
EDER 461	(3)	Society and Change
EDER 473	(3)	Living with Insight
EDER 494	(3)	Ethics in Practice
JWST 211	(3)	Jewish Studies 1: Biblical Period
JWST 240*	(3)	The Holocaust
PHIL 200	(3)	Introduction to Philosophy 1
PHIL 230	(3)	Introduction to Moral Philosophy 1
PHIL 237	(3)	Contemporary Moral Issues
RELG 203	(3)	Bible and Western Culture
RELG 204	(3)	Judaism, Christianity and Islam
RELG 207	(3)	The Study of World Religions 1
RELG 252	(3)	Hinduism and Buddhism
RELG 253	(3)	Religions of East Asia

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

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 Physical Education (EDKP) courses from the list with the permission of the Department of Kinesiology and Physical Education.

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

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

Social Studies

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

Students may select additional History courses as follows:

Any 3 credits in European History

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

Any 3 credits in any topic or field of history

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

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

Electives (6 credits)

6 credits

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 200	(2)	First Field Experience (K/Elem & Secondary)

EDFE 256	(3)	Second Field Experience (Kindergarten/Elementary)
EDFE 306	(8)	Third Field Experience (Kindergarten/Elementary)
EDFE 406	(7)	Fourth Field Experience (K/Elem)
EDKP 241	(3)	Aboriginal Physical Activities
EDKP 292	(3)	Nutrition and Wellness
EDPE 300	(3)	Educational Psychology
EDPI 309	(3)	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 following language courses chosen according to language group and fluency:

Algonquin

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

Cree

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

Inuktitut

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

Mi'kmaq

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

Mohawk

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

EDEE 297	(3)	Mohawk Language 1
EDEE 298	(3)	Mohawk Language 2

Naskapi

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

Media, Technology, Computers and Education - Complementary Component

3 credits from:

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

Education - Complementary Component

3 credits from:

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

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, Computers and Education (3 credits)

3 credits from:

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

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

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

Electives (3 credits)

3 credits

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

Students who wish to follow this option must contact:

Professor Eric Caplan
Department of Integrated Studies in Education
Faculty of Education
Telephone: 514-398-6544
Email: *eric.caplan@mcgill.ca*

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

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

Competency in French

Students wishing to follow the PIF major must demonstrate a sufficient level of competency in French by passing the written and oral French Language Proficiency Test (FLPT) set by the Department of Integrated Studies in Education. Students should contact advisedise.education@mcgill.ca to indicate their desire to transfer into this major and will subsequently be contacted with a testing date. The test must be passed for the transfer to be accepted/processed.

For further information about the PDF major and/or the FLPT, please contact the Department at 514-398-4527.

Required Courses (90 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 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)	Littératie 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)	Littératie 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

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

(No admission for 2013-2014)

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

This jointly offered program 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. Students will be admitted into, and registered at, either the Université de Montréal or McGill as their "home" university. Courses will be offered at the Université de Montréal during the Fall term and at McGill during the Winter term.

Additional Requirements for Students admitted to B.Ed. TFSL program:

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", "Undergraduate Education Programs", and "Quebec Teacher Certification".

Freshman Program

The Freshman year is the time to take introductory-level courses in the subject field, as well as to explore areas that are not normally taken as academic subjects 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 consultation with the Program Adviser, students select 30 credits of courses for their Freshman (U0) year of studies.

To ensure that students are able to function effectively in French, students may need to take French as a Second Language (FRSL) courses (placement tests are required to determine the appropriate level) in their Freshman year.

Recommended courses include language courses (selected from CLAS Greek/Latin; EAST Korean/Chinese/Japanese; GERM German; HISP Spanish; ISLA Arabic; ITAL Italian; RUSS Russian/Polish) and courses in the list below.

EDEM 220	(3)	Contemporary Issues in Education
HIST 202	(3)	Survey: Canada to 1867
HIST 203	(3)	Survey: Canada since 1867
LING 200	(3)	Introduction to the Study of Language
LING 201	(3)	Introduction to Linguistics
RELG 207	(3)	The Study of World Religions 1

Required Courses (80 credits)

EDFE 261	(3)	Stage d'assistanat - 2e année
EDFM 260	(1)	Stage de familiarisation
EDPI 309	(3)	Exceptional Students
EDSL 260	(1)	Séminaire professionnel-2e
EDSL 301	(3)	Étude de la langue
EDSL 444	(3)	Laboratoire d'enseignement en français langue seconde
EDUM 215	(0)	Test de certification en français écrit
EDUM 245	(3)	Français écrit pour futurs enseignants
EDUM 262	(3)	Système éducatif - profession enseignante
EDUM 263	(3)	Apprentissage et développement
EDUM 264	(3)	Phonétique et phonologie
EDUM 265	(3)	Acquisition-apprentissage-langues secondes
EDUM 266	(3)	Mathématiques au primaire
EDUM 267	(3)	Didactique des arts plastiques 1
EDUM 268	(3)	Intégration des TIC
EDUM 269	(3)	École et environnement social
EDUM 270	(3)	Morphologie et syntaxe
EDUM 271	(3)	Lexique et sémantique
EDUM 341	(3)	Littératie et Littérature Jeunesse en FLS
EDUM 392	(3)	Gestion de classe en langues secondes
EDUM 393	(3)	Adolescent et expérience scolaire
EDUM 402	(3)	Évaluation en français langue seconde

EDUM 491	(3)	Didactique des mathématiques en langues secondes
EDUM 492	(3)	Didactique des sciences-technologies
FREN 251	(3)	Littérature française depuis 1800
FREN 252	(3)	Littérature québécoise

9 credits to increase the student's proficiency 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:

EDFE 461	(9)	Stage d'enseignement - immersion
EDSL 420	(2)	Séminaire 4 professionnel

Or set:

EDFM 460	(9)	Stage d'enseignement 2
EDUM 499	(2)	Séminaire de stage-4e

3 credits from:

EDSL 345	(3)	Enseignement du FLS-immersion
EDUM 498	(3)	Didactique du français en accueil 2

3 credits from:

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
EDUM 496	(3)	Laboratoire de formation professionnelle
EDUM 497	(3)	Problématique en éducation préscolaire

3 credits from:

EDEC 248	(3)	Multicultural Education
LING 350	(3)	Linguistic Aspects of Bilingualism

6 credits of study of a second or third language, to be chosen from University offerings, so that students experience the learning processes that take place in the learning of a language.

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

The Bachelor of Education (B.Ed.) - Teaching English as a Second Language - TESL Elementary and Secondary 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 program includes studies in language and language learning from linguistic, literary, social, cultural, and psychological perspectives, accompanied by field experiences. It prepares students to teach English as a Second Language (ESL) at both the elementary school level (including regular and intensive ESL) and the secondary school level (including regular ESL and ESLA - English Second Language Arts), and provides a base for adult and other ESL teaching.

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".

The Department is committed to supporting students in the development and creation of their individual professional portfolios throughout their program.

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 subject field, as well as to explore areas that are not normally taken as academic subjects 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 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. In Quebec, ESL is taught within the French school system. Thus, proficiency in French is an asset for student teaching placements, and is a requirement for employment in Quebec.

To ensure that students are able to function effectively in French in the French school setting, EDSL 215 Effective Communication in French (placement test required) is a required course in the TESL program. This course is offered in alternate years and must be taken in students' first or second year of their program. Students may need to take prerequisite FRSL courses prior to taking EDSL 215. If so, the Freshman year is an ideal time in which to do so.

Other language courses (selected from CLAS Greek/Latin; EAST Korean/Chinese/Japanese; GERM German; HISP Spanish, ISLA Arabic; ITAL Italian; RUSS Russian/Polish) are also good choices for the Freshman year.

EDEC 203	(3)	Communication in Education
EDEE 325	(3)	Children's Literature
EDEM 220	(3)	Contemporary Issues in Education

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:

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

3 credits from:

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

3 credits from:

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

3 credits from:

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

3 credits from:

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

3 credits from:

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

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

6-9 credits of English (ENGL) courses

And

9-12 credits of academic courses including

Foreign language courses (0-9 credits)

Academic courses (3-12 credits)

Electives (6 credits)

6 credits

10 Programs for First Nations and Inuit

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

Information may be obtained by contacting:

Faculty of Education

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

Telephone: 514-398-4533
Fax: 514-398-2553
Website: *www.mcgill.ca/dise*

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)*.

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 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

10.2 Certificate in Education for First Nations and Inuit Physical Education (60 credits)

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, and Algonquin 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.

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

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

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. Fluency in Algonquin, Cree, Mi'kmaq, Mohawk, or Naskapi is not a condition for acceptance for applicants from these communities, but is considered an asset. Courses are available in all four of these languages for those teaching in immersion classes and other teaching situations where a knowledge of the first language is essential.

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

10.4 Certificate in Aboriginal Literacy Education (30 credits)

This 30-credit program is designed for Algonquin, Cree, Inuit, Mi'kmaq, and Kanienkehaka (Mohawk) students who wish to gain a deeper understanding of their Indigenous language, especially in its written form. It is aimed mainly at those who will be teaching their Indigenous language.

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

Required Courses (6 credits)

EDEE 342	(3)	Intermediate Inuktitut/Amerindian Language
EDEE 344	(3)	Advanced Inuktitut/Amerindian Language

Complementary Courses (18 credits)

18 credits selected as described below.

Language Courses

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

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

Education Courses

12 credits from the list below:

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

Electives (6 credits)

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

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.

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 equivalent. Students must speak, read, and write fluently the language of instruction as agreed upon between the unit and the client School Board or Education Centre. For Nunavik applicants, students must have experience in a Nunavik educational or community organization. The right of final decision for acceptance of candidates rests with McGill.

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

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

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

This program does not lead to further certification.

Complementary Courses

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

Academic Concentration (30 credits)

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

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

Cultural Development (15 credits)

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

Education Concentration (30 credits)

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

Electives (15 credits)

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

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.

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

This program is offered by the Department of Educational and Counselling Psychology through First Nations and Inuit Education.

This 30-credit program is designed to provide Aboriginal school personnel advisers with a training program that will enable them to learn about the principles and practice of personnel services as generally applied in educational settings, to help Aboriginal student personnel advisers develop their personal skills, and to modify or adapt their services and the content to best suit the cultural and educational needs of Aboriginal students; to encourage Aboriginal student personnel advisers to take leadership in developing educational programs that address the social needs of their communities, to upgrade their academic qualifications and professional development; and to develop and make available, in English and in the languages of instruction, collections of professional and scholarly knowledge about students' needs, and services in First Nations and Inuit communities.

Bearers of this certificate will be qualified to work as educational and school personnel advisers within the employ of an Aboriginal educational authority.

Required Courses (21 credits)

EDPC 201	(3)	Introduction to Student Advising
EDPC 202	(3)	Helping Skills Practicum 1
EDPC 203	(3)	Helping Skills Practicum 2
EDPC 205	(3)	Career/Occupational Development
EDPC 208	(3)	Native Families' Dynamics
EDPC 209	(3)	Basic Crisis Intervention Skills
EDPC 210	(3)	Field Experience

Complementary Courses (9 credits)

9 credits selected from the list below or any other suitable course approved by the Program Coordinator.

Registration in EDEM 202, EDKP 204, or any other courses offered by departments other than Educational and Counselling Psychology, or in other programs of this Department is dependent on availability (e.g., through a concurrently offered program) or through an arrangement made with that department or program. The Program Coordinator will attempt to make these contacts whenever required.

EDEM 202	(3)	Native Family Dynamics & Supporting Institutions
EDKP 204	(3)	Health Education
EDPI 211	(3)	Social and Emotional Development

10.9.1 Admission to Certificate in First Nations and Inuit Student Personnel Services

Admission Requirements

- Speak, read, and write fluently the language of instruction as agreed upon between First Nations and Inuit Education and the contracting school board.
- Hold a student adviser position in an Aboriginal community. This may be a new appointment concurrent with registration in the program. The position must be sufficient to meet the practicum requirements of the program.
- Be recommended by the local education authority.
- Be at least 21 years of age (except for special permission). By this means, students will qualify for admission as Mature Students under McGill regulations, and thereby not be required to have a Diploma of Collegial Studies (DEC).
- Be recommended and selected by the school administration in collaboration with McGill personnel.

The right of final decision for acceptance of candidates rests with McGill.

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*
Website: *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*.

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 Jensen; B.P.E.(Brock), M.Sc., Ph.D.(Qu.)

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

Faculty Lecturer

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

Adjunct Professors

Robert Boushel; B.A.(P.E.)(Acad.), M.A.(S. Flor.), D.Sc.(Boston)

Christian Duval; B.Sc.(UQTR), M.Sc.(UQAM), Ph.D.(McG.)

François Peronnet; M.Sc., Ph.D.(Montr.) (*Emeritus Professor*)

Ruddy Richard; M.D.(Louis Pasteur, Strasbourg), Ph.D.(Paris Descartes)

Catherine M. Sabiston; B.Sc.K.(Dal.), M.H.K.(Windsor), Ph.D.(Br. Col.)

Associate Members

Jean Bourbeau; M.D.(Laval)

Robert Thomas Jagoe; B.A.(Camb.), M.B., B.Chir., MRCP(UK), CCST(Resp. and General (Internal) Med.), Ph.D.(Newcastle, UK), F.R.C.P.

11.4 Bachelor of Education (B.Ed.) - Physical and Health Education (120 credits)

The Bachelor of Education (B.Ed.) - Physical and Health Education is a 120-credit program leading 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 Physical and Health Education program prepares students to teach physical and health education at the elementary and secondary levels. In a unique structure interweaving academic studies, professional course work, and teaching practices over the course of study, students are rapidly given the opportunity to assume a teaching role; the extent of teaching involvement and expectations progressively building on additional academic and professional courses.

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

Freshman students are required to complete 30 credits of introductory (100- or 200-level) courses. Students will not be granted permission to take first-year (U1) courses if the credits from the Freshman year have not been obtained. For students considering a second teachable subject, the following areas are recommended: history, geography, English, or mathematics.

From the "Required Courses" list, Freshman students take the 0-credit course EDEC 215 English Language Requirement. In addition, in consultation with the Program Adviser, students may select courses from the recommended course list below or other courses.

CEAP 250	(3)	Research Essay & Rhetoric
EDEC 202	(3)	Effective Communication
EDEM 220	(3)	Contemporary Issues in Education

Required Courses (95 credits)

EDEC 215	(0)	English Language Requirement
EDEC 247	(3)	Policy Issues in Quebec Education
EDEC 260	(3)	Philosophical Foundations
EDFE 246	(3)	First Field Experience (Physical Education)
EDFE 373	(3)	Second Field Experience (Physical Education)

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.

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)

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

11.6 Bachelor of Science (Kinesiology) (B.Sc.(Kinesiology)) - Kinesiology - Honours (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 Honours version of 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 Kinesiology - Honours program offers particularly strong students aspiring to continue their studies at the graduate level the opportunity to pursue more advanced coursework. The program requires the completion of a research project under the direction of a professor during the final year. 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 (70 credits)

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

ANAT 315	(3)	Anatomy/Limbs and Back
ANAT 316	(3)	Human Visceral Anatomy
BIOL 200	(3)	Molecular Biology
CHEM 212	(4)	Introductory Organic Chemistry 1
EDKP 206	(3)	Biomechanics of Human Movement
EDKP 215	(0)	Standard First Aid/Cardio-Pulmonary Resuscitation Level C
EDKP 261	(3)	Motor Development
EDKP 292	(3)	Nutrition and Wellness
EDKP 330	(3)	Physical Activity and Health
EDKP 394	(3)	Historical Perspectives
EDKP 395	(3)	Exercise Physiology
EDKP 396	(3)	Adapted Physical Activity
EDKP 405	(3)	Sport in Society
EDKP 443	(3)	Research Methods
EDKP 447	(3)	Motor Control
EDKP 448	(3)	Exercise and Health Psychology
EDKP 453	(3)	Research Practicum in Kinesiology
EDKP 485	(3)	Exercise Pathophysiology 1

EDKP 495	(3)	Scientific Principles of Training
EDKP 498	(3)	Sport Psychology
EDKP 499	(6)	Undergraduate Honours Research Project
PHGY 209	(3)	Mammalian Physiology 1
PHGY 210	(3)	Mammalian Physiology 2

Complementary Courses (15 credits)

15 credits selected as described below.

3 credits of Statistics from:

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

12 credits from:

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

Elective Courses (5 credits)

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

12 School of Information Studies

12.1 Location

3661 Peel Street
Montreal, Quebec H3A 1X1

Telephone: 514-398-4204
Fax: 514-398-7193

Email: *sis@mcgill.ca*
Website: *www.mcgill.ca/sis*

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* or the School *website*.

12.3 School of Information Studies Faculty

Director

France Bouthillier

Professor

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

Associate Professors

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

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

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

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

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

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

Assistant Professors

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

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

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

Adjunct Professor

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

Associate Members

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

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

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

Affiliate Members

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

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

Part-time Instructors

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

Part-time Instructors

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

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

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

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

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

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

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

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