1. AGRICULTURAL AND ENVIRONMENTAL SCIENCES

1.1 Freshman Entry Program, page 2

1.2 Animal Science, page 2
Animal Science Major

1.3 Interdisciplinary Studies, page 2
Minor in Ecological Agriculture
Certificate in Ecological Agriculture
Agricultural Sciences Major – Ecological Agriculture Option
Agricultural Sciences Major – Ecological Agriculture Option
Agricultural Sciences Internship Major – Ecological Agriculture Option

1.4 Natural Resource Sciences, page 4
Applied Zoology Major
Resource Conservation Major
Wildlife Biology Major

1.5 Plant Science, page 5
Botanical Science Major

2. ARTS

2.1 Anthropology, page 6
Minor Concentration in Socio-cultural Anthropology
Minor Concentration in Anthropological Archaeology
Major Concentration in Anthropology

2.2 East Asian Studies, page 7
Major Concentration in East Asian Studies

2.3 French Language and Literature, page 7
Concentration mineure langue et littérature françaises
– lettres
– lettres et traduction
– théorie et critique littéraires
Concentration majeure langue et littérature françaises
– lettres
– lettres et traduction
Programme de spécialisation, option lettres
Programme de spécialisation, option lettres et traduction
Double spécialisation, option lettres
Double spécialisation, option lettres et traduction

2.4 Geography, page 8
Minor Concentration in Geography
B.A. Honours Program in Geography
B.A. Joint Honours Program – Geography Component

2.5 German Studies, page 9
Minor Concentration in German Literature
Minor Concentration in German Literature and Culture in Translation
Major Concentration in German Language and Literature
Major Concentration in German Literature and Culture
Honours Program in German Studies
Joint Honours Program – German Studies Component

2.6 Humanistic Studies, page 11
Minor Concentration in Humanistic Studies
Major Concentration in Humanistic Studies

2.7 International Development Studies, page 11
Minor Concentration in International Development Studies
Major Concentration in International Development Studies
Honours Program in International Development Studies
Joint Honours Program – International Development Studies Component

2.8 Italian Studies, page 12
Minor Concentration in Italian Studies
Minor Concentration in Italian Civilization
Major Concentration in Italian Studies
Major Concentration in Italian Language and Literature
Honours Program in Italian Studies
Joint Honours Program – Italian Studies Component

2.9 Linguistics, page 14
Honours Program in Linguistics
Joint Honours Program – Linguistics Component

2.10 Middle East Studies, page 14
Joint Honours Program – Middle East Studies Component

2.11 Psychology, page 15
Minor Concentration in Psychology
Minor Concentration in Behavioural Science
Major Concentration in Psychology
B.A. Honours Program in Psychology

2.12 Science for Arts Students, page 16
Minor Concentration in Science for Arts Students

2.13 Women’s Studies, page 18
Honours Program in Women’s Studies
Joint Honours Program in Women's Studies

3. EDUCATION, page 19
T.B.A.

4. ENGINEERING

4.1 Architecture, page 19
B.Sc. (Arch.)

4.2 Electrical and Computer Engineering, page 19
B.Eng. in Electrical Engineering (Regular)
Bachelor of Software Engineering (B.S.E.)

4.3 Mechanical Engineering, page 21
B.Eng. in Mechanical Engineering (Regular)
B.Eng. in Mechanical Engineering (Honours)

4.4 Software Engineering Minor, page 22

5. MANAGEMENT

5.1 Concentrations, page 22
Accounting
Entrepreneurship
Finance
Information Systems
International Business
Labour-Management Relations
Marketing
Organizational Behaviour and Human Resource Management
Strategic Management

6. SCIENCE

6.1 Anatomy and Cell Biology, page 23
Major Program in Anatomy and Cell Biology
Honours Program in Anatomy and Cell Biology

6.2 Cognitive Science, page 23
Minor Program in Cognitive Science

6.3 Computer Science, page 24
Minor Program in Computer Science
Major Program in Computer Science
Major Program in Software Engineering
Honours Program in Computer Science

6.4 Physics, page 25
Joint Honours Program in Physics and Chemistry (NEW PROGRAM)

6.5 Psychology, page 26
B.Sc. Faculty Program in Psychology
B.Sc. Major Program in Psychology
B.Sc. Honours Program in Psychology

6.6 Science for Teachers, page 27
Biology Course Lists used in Various Options

7. SCHOOL OF ENVIRONMENT, page 27
B.A. Faculty Program in Environment
Environment and Development Domain

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Admissions, Recruitment and Registrar’s Office
McGill University, 845 Sherbrooke Street West
Montreal, Quebec H3A 2T5
Canada
1 Agricultural and Environmental Sciences

1.1 Freshman Entry Program

<table>
<thead>
<tr>
<th>Required Courses - Fall</th>
<th>CREDITS</th>
</tr>
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<tbody>
<tr>
<td>AEWI 120 General Biology</td>
<td>3.0</td>
</tr>
<tr>
<td>AEMA 101 Calculus 1</td>
<td>3.0</td>
</tr>
<tr>
<td>AEPH 112 Introductory Physics 1</td>
<td>4.0</td>
</tr>
<tr>
<td>AGRI 195* Freshman Seminar 1</td>
<td>0.5</td>
</tr>
<tr>
<td>FDSC 230 Organic Chemistry</td>
<td>4.0</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Required Courses - Winter</th>
<th>CREDITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEMA 102 Calculus 2</td>
<td>4.0</td>
</tr>
<tr>
<td>AEPH 114 Introductory Physics 2</td>
<td>4.0</td>
</tr>
<tr>
<td>AGRI 196* Freshman Seminar 2</td>
<td>0.5</td>
</tr>
<tr>
<td>FDSC 110 Inorganic Chemistry</td>
<td>4.0</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Elective - Winter</th>
<th>CREDITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEBI 202 Cellular Biology</td>
<td>3.0</td>
</tr>
<tr>
<td>ABEN 103 Linear Algebra</td>
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</tr>
</tbody>
</table>

Total Credits: 30.0

* AGRI 195 and AGRI 196 are required for all freshmen excluding Dietetics and Nutrition students.

1.2 Animal Science

ANIMAL SCIENCE MAJOR

Required Courses: 63 credits.

Complementary Courses: 6 credits.

Electives: selected in consultation with Academic Adviser, to meet the minimum 90-credit requirement for the degree.

<table>
<thead>
<tr>
<th>Required Courses:</th>
<th>CREDITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABEN 322 Food Prod/Processing Waste Mgmt</td>
<td>3</td>
</tr>
<tr>
<td>AEMA 310 Statistical Methods 1</td>
<td>3</td>
</tr>
<tr>
<td>AGEC 200 Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 250 Principles of Animal Science</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 301 Principles of Animal Breeding</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 312 Animal Health and Disease</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 323 Mammalian Physiology</td>
<td>4</td>
</tr>
<tr>
<td>ANSC 324 Animal Reproduction</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 330 Fundamentals of Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 433 Animal Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 450 Dairy Cattle Production</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 452 Beef Cattle and Sheep Production</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 454 Swine Production</td>
<td>3</td>
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<tr>
<td>ANSC 456 Poultry Production</td>
<td>3</td>
</tr>
<tr>
<td>ANSC 495D1 Seminar</td>
<td>1</td>
</tr>
<tr>
<td>ANSC 495D2 Seminar</td>
<td>1</td>
</tr>
<tr>
<td>FDSC 211 Biochemistry 1</td>
<td>3</td>
</tr>
<tr>
<td>MIRC 230 Microbial World</td>
<td>3</td>
</tr>
<tr>
<td>PLNT 211 Principles of Plant Science</td>
<td>3</td>
</tr>
<tr>
<td>SOIL 210 Principles of Soil Science</td>
<td>3</td>
</tr>
<tr>
<td>WILD 375 Issues in Environmental Sciences</td>
<td>3</td>
</tr>
</tbody>
</table>

Complementary Courses: 6

One Ethics course: 3

ENVR 203 (3) Knowledge, Ethics and Environment or RELG 270 (3) Ethics and the Environment

One additional Economics course: 3

1.3 Interdisciplinary Studies

MINOR IN ECOLOGICAL AGRICULTURE

Required Courses: 9 credits.

Complementary Courses: 15 credits.

<table>
<thead>
<tr>
<th>Required Courses:</th>
<th>CREDITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGRI 210 Agro-Ecological History</td>
<td>3</td>
</tr>
<tr>
<td>AGRI 340 Principles of Ecological Agriculture</td>
<td>3</td>
</tr>
<tr>
<td>AGRI 341 Ecological Agriculture Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

Complementary Courses: 15 credits chosen from the following, in consultation with the Academic Adviser for Ecological Agriculture

with at least 3 credits chosen from: 3-9

NRSC 521 (3) Soil Microbiology and Biochemistry
SOIL 335 (3) Soil Ecology and Management
SOIL 490D1 (1.5) Plan global de fertilisation
SOIL 490D2 (1.5) Plan global de fertilisation

and the remaining credits to be chosen from: 6-12

AGRI 205 (3) Principles of Ecology
AGEC 333 (3) Resource Economics
AGRI 435 (3) Soil and Water Quality Management
AGRI 491D1 (1.5) Co-op Experience
AGRI 491D2 (1.5) Co-op Experience
ENTO 352 (3) Control of Insect Pests
MIRC 331 (3) Microbial Ecology
NUTR 512 (3) Herbs, Food and Phytochemicals
PLNT 300 (3) Crop Physiology
PLNT 361 (3) Pest Management & the Environment
PLNT 434 (3) Weed Biology and Control
PLNT 460 (3) Plant Ecology
SCEL 370 (3) Forest Ecosystem
ZOO 311 (3) Ethology

CERTIFICATE IN ECOLOGICAL AGRICULTURE

Required Courses: 9 credits.

Complementary Courses: 21 credits.

<table>
<thead>
<tr>
<th>Required Courses:</th>
<th>CREDITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGRI 210 Agro-Ecological History</td>
<td>3</td>
</tr>
<tr>
<td>AGRI 340 Principles of Ecological Agriculture</td>
<td>3</td>
</tr>
<tr>
<td>AGRI 341 Ecological Agriculture Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

Complementary Courses: 21 credits chosen from the following, in consultation with the Academic Adviser for Ecological Agriculture

with at least 3 credits chosen from: 3-9

NRSC 521 (3) Soil Microbiology and Biochemistry
SOIL 335 (3) Soil Ecology and Management
SOIL 490D1 (1.5) Plan global de fertilisation
SOIL 490D2 (1.5) Plan global de fertilisation

and the remaining credits to be chosen from: 12-18

AGRI 205 (3) Principles of Ecology
AGEC 333 (3) Resource Economics
AGRI 435 (3) Soil and Water Quality Management
AGRI 491D1 (1.5) Co-op Experience
AGRI 491D2 (1.5) Co-op Experience
ENTO 352 (3) Control of Insect Pests
MIRC 331 (3) Microbial Ecology
NUTR 512 (3) Herbs, Food and Phytochemicals
PLNT 300 (3) Crop Physiology
PLNT 361 (3) Pest Management & the Environment
PLNT 434 (3) Weed Biology and Control
PLNT 460 (3) Plant Ecology
SCEL 370 (3) Forest Ecosystem
ZOO 311 (3) Ethology
RELG 270  (3) Ethics and the Environment
WILD 375  (3) Issues in Environmental Sciences
WOOD 410  (3) The Forest Ecosystem
ZOOl 311  (3) Ethology

**AGRICULTURAL SCIENCES MAJOR – ECOLOGICAL AGRICULTURE OPTION** (90 credits)

**Required Courses:** 61 credits.
**Complementary Courses:** 16 - 19 credits.
**Electives:** selected in consultation with Academic Adviser, to meet the minimum 90-credit requirement for the degree.

### Required Courses: 61 CREDITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ABEN 300</td>
<td>Elements of Agricultural Engineering</td>
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</tr>
<tr>
<td>AEMA 310</td>
<td>Statistical Methods 1</td>
<td>3</td>
</tr>
<tr>
<td>AGEC 200</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>AGEC 205</td>
<td>Principles of Ecology</td>
<td>3</td>
</tr>
<tr>
<td>AGEC 231</td>
<td>Economic Systems of Agriculture</td>
<td>3</td>
</tr>
<tr>
<td>AGRI 210</td>
<td>Agro-Ecological History</td>
<td>3</td>
</tr>
<tr>
<td>AGRI 220</td>
<td>Professional Practice Seminar 1</td>
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</tr>
<tr>
<td>AGRI 221</td>
<td>Professional Practice Seminar 2</td>
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<tr>
<td>AGRI 320</td>
<td>Professional Practice Seminar 3</td>
<td>3</td>
</tr>
<tr>
<td>AGRI 321</td>
<td>Professional Practice Seminar 4</td>
<td>3</td>
</tr>
<tr>
<td>AGRI 340</td>
<td>Principles of Ecological Agriculture</td>
<td>3</td>
</tr>
<tr>
<td>AGRI 341</td>
<td>Ecological Agriculture Systems</td>
<td>3</td>
</tr>
<tr>
<td>AGRI 420</td>
<td>Professional Practice Seminar 5</td>
<td>3</td>
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<tr>
<td>AGRI 421</td>
<td>Professional Practice Seminar 6</td>
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<tr>
<td>ANSC 250</td>
<td>Principles of Animal Science</td>
<td>3</td>
</tr>
<tr>
<td>CELL 204</td>
<td>Genetics</td>
<td>3</td>
</tr>
<tr>
<td>ENTO 352</td>
<td>Control of Insect Pests</td>
<td>3</td>
</tr>
<tr>
<td>FDSC 211</td>
<td>Biochemistry 1</td>
<td>3</td>
</tr>
<tr>
<td>MIRC 230</td>
<td>Microbial World</td>
<td>3</td>
</tr>
<tr>
<td>PLNT 211</td>
<td>Principles of Plant Science</td>
<td>3</td>
</tr>
<tr>
<td>PLNT 300</td>
<td>Cropping Systems</td>
<td>3</td>
</tr>
<tr>
<td>RELG 270</td>
<td>Ethics and the Environment</td>
<td>3</td>
</tr>
<tr>
<td>SOIL 210</td>
<td>Principles of Soil Science</td>
<td>3</td>
</tr>
<tr>
<td>SOIL 315</td>
<td>Soil Fertility and Fertilizers</td>
<td>3</td>
</tr>
</tbody>
</table>

### Complementary Courses: 16 to 19 CREDITS

at least one of:
- ANSC 232  (4) Mammalian Physiology
- PLNT 356  (4) Plant Structure and Function

at least one production course in Agricultural Science:
- AGEC 331  (3) Farm Business Management
- ANSC 450  (3) Dairy Cattle Production
- ANSC 452  (3) Beef Cattle and Sheep Production
- ANSC 454  (3) Swine Production
- ANSC 456  (3) Poultry Production
- PLNT 331  (3) Field Crops

at least 3 credits must be chosen from three of the four blocks below:
- AGRI 201D1  (3) Agri-Environment Internship
- AGRI 201D2  (3) Agri-Environment Internship
- AGRI 435  (3) Soil and Water Quality Management
- NRSC 521  (3) Soil Microbiology and Biochemistry
- SOIL 335  (3) Soil Ecology and Management
- SOIL 490D1  (1.5) Plan global de fertilisation
- SOIL 490D2  (1.5) Plan global de fertilisation
- MIRC 331  (3) Microbial Ecology
- PLNT 434  (3) Weed Biology and Control
- PLNT 460  (3) Plant Ecology
- AGEC 333  (3) Resource Economics
- ENVRI 201  (3) Society and Environment
- ENVRI 400  (3) Environmental Thought

**AGRICULTURAL SCIENCES INTERNSHIP MAJOR – ECOLOGICAL AGRICULTURE OPTION** (102 credits)

**Required Courses:** 73 credits.
**Complementary Courses:** 13 credits.
**Electives:** selected in consultation with Academic Adviser, to meet the minimum 102-credit requirement for the degree.

### CREDITS 73

All of the required courses (61 credits) specified for the Agricultural Sciences Major – Ecological Agriculture Option, with the addition of:
- AGRI 201D1  (3) Agri-Environment Internship
- AGRI 201D2  (3) Agri-Environment Internship
- AGRI 301D1  (3) Agri-Environment Internship
- AGRI 301D2  (3) Agri-Environment Internship

**Complementary Courses:**

at least one of:
- ANSC 323  (4) Mammalian Physiology
- PLNT 353  (4) Plant Structure and Function

at least one production course in Agricultural Science:
- AGEC 331  (3) Farm Business Management
- ANSC 450  (3) Dairy Cattle Production
- ANSC 452  (3) Beef Cattle and Sheep Production
- ANSC 454  (3) Swine Production
- ANSC 456  (3) Poultry Production
- PLNT 331  (3) Field Crops

at least 3 credits must be chosen from two of the three blocks below:
- AGRI 435  (3) Soil and Water Quality Management
- NRSC 521  (3) Soil Microbiology and Biochemistry
- SOIL 335  (3) Soil Ecology and Management
- SOIL 490D1  (1.5) Plan global de fertilisation
- SOIL 490D2  (1.5) Plan global de fertilisation
- MIRC 331  (3) Microbial Ecology
- PLNT 434  (3) Weed Biology and Control
- PLNT 460  (3) Plant Ecology
- AGEC 333  (3) Resource Economics
- ENVRI 201  (3) Society and Environment
- ENVRI 400  (3) Environmental Thought

**AGRICULTURAL SCIENCES MAJOR – SOIL SCIENCE OPTION** (90 credits)

**Required Courses:** 52 credits.
**Complementary Courses:** 25 credits.
**Electives:** selected in consultation with Academic Adviser, to meet the minimum 90-credit requirement for the degree.

### CREDITS 52

- ABEN 300  (3) Elements of Agricultural Engineering
- AEMA 310  (3) Statistical Methods 1
- AGEC 200  (3) Principles of Microeconomics
- AGEC 231  (3) Economic Systems of Agriculture
- AGRI 210  (3) Agro-Ecological History
- AGRI 220  (3) Professional Practice Seminar 1
- AGRI 221  (3) Professional Practice Seminar 2
- AGRI 320  (3) Professional Practice Seminar 3
- AGRI 321  (3) Professional Practice Seminar 4
- AGRI 420  (3) Professional Practice Seminar 5
- AGRI 421  (3) Professional Practice Seminar 6
- AGRI 490  (3) Agri-food Industry Project
- ANSC 250  (3) Principles of Animal Science
- CELL 204  (3) Genetics
- ENTO 352  (3) Control of Insect Pests
- FDSC 211  (3) Biochemistry 1
- MIRC 230  (3) Microbial World
- PLNT 211  (3) Principles of Plant Science
PLNT 300  Cropping Systems  3
RELG 270  Ethics and the Environment  3
SOIL 210  Principles of Soil Science  3
SOIL 315  Soil Fertility and Fertilizers  3

Complementary Courses:  25
at least one of:
ANSC 323  (4) Mammalian Physiology
PLNT 353  (4) Plant Structure and Function

at least one production course in Agricultural Science:
AGEC 331  (3) Farm Business Management
ANSC 450  (3) Dairy Cattle Production
ANSC 452  (3) Beef Cattle and Sheep Production
ANSC 454  (3) Swine Production
ANSC 456  (3) Poultry Production
PLNT 331  (3) Field Crops

a minimum of 18 credits chosen from the following:
AGRI 435  (3) Soil and Water Quality Management
ABEN 217  (3) Hydrology and Drainage
SOIL 200  (3) Introduction to Earth Science
SOIL 326  (3) Soil Genesis and Classification
SOIL 331  (3) Soil Physics
SOIL 335  (3) Soil Ecology and Management
SOIL 410  (3) Soil Chemistry
SOIL 521  (3) Soil Microbiology and Biochemistry

AGRICULTURAL SCIENCES INTERNSHIP MAJOR –
SOIL SCIENCE OPTION (102 credits)

Required Courses:  64 credits.
Complementary Courses:  25 credits.
Electives: selected in consultation with Academic Adviser, to meet the minimum 102-credit requirement for the degree.

Complementary Courses:  36 credits in any combination from List A, B and/or C  36
List A (Animal Diversity)
BIOL 3271  (3) Herpetology
BIOL 3511  (3) The Biology of Invertebrates
MICR 230  (3) Microbial World
WILD 350  (3) Mammalogy
WILD 420  (3) Ornithology
ZOOL 307  (3) Natural History of the Vertebrates
ZOOL 424  (3) Parasitology

List B (Entomology)
ENTO 352  (3) Control of Insect Pests
ENTO 450  (3) Systematic Entomology
ENTO 525  (3) Insect Ecology
ENTO 535  (3) Aquatic Entomology
NRSC 330  (3) Insect Biology
NRSC 515  (3) Parasitoid Behavioural Ecology
NRSC 520  (3) Insect Physiology
NRSC 550  (3) Veterinary and Medical Entomology

List C (Interactions and Applications)
BIOL 3311  (3) Ecology/Behaviour Field Course
BIOL 4651  (3) Conservation Biology
NRSC 497D1 (2.5) Project 2
NRSC 497D2 (2.5) Project 2
PLNT 358  (3) Flowering Plant Diversity
SOIL 335  (3) Soil Ecology and Management
WILD 401  (3) Fisheries and Wildlife Management
WILD 410  (3) Wildlife Ecology
ZOOL 311  (3) Ethology
ZOOL 313  (3) Zoogeography
ZOOL 315  (3) Science of Inland Waters

Complementary Courses with the prior permission of the Academic Adviser and the Macdonald Committee on Academic Standing. When selecting electives, students are encouraged to consult with their Academic Adviser.

Department of Biology (Downtown Campus) Courses:
BIOL 307  (3) Behavioural Ecology and Sociobiology
BIOL 334  (3) Field Course, Applied Tropical Ecology
BIOL 335  (3) Marine Mammals
BIOL 336  (3) Marine Aquaculture
BIOL 337  (3) Ecology and Behaviour of Fishes
BIOL 352  (3) Vertebrate Evolution
BIOL 437  (3) Advanced Invertebrate Zoology
BIOL 542  (3) Marine Biology

RESOURCE CONSERVATION MAJOR

Required Courses:  25 credits.
Complementary Courses:  33 credits.
Electives: to meet the minimum 90-credit requirement for the degree.

1.4 Natural Resource Sciences

APPLIED ZOOLOGY MAJOR

Required Courses:  27 credits.
Complementary Courses:  36 credits.
Electives: to meet the minimum requirement of 90 credits; chosen in consultation with the Academic Adviser.

Required Courses:  27
AEBI 200  Biology of Organisms  3
AEBI 202  Cellular Biology  3
AEBI 205  Principles of Ecology  3
AEMA 310  Statistical Methods 1  3
CELL 204  Genetics  4
FDSC 211  Biochemistry 1  3
PLNT 201  Comparative Plant Biology  3
WILD 491D1  Seminar  1
WILD 491D2  Seminar  1
ZOOL 312  Zoological Systematics and Evolution  3

1 Downtown Campus

The following Zoology courses from the Downtown Campus may be substituted for those in the above list of Macdonald Campus

Complementary Courses:  min. 33
AEMA 310  (3) Statistical Methods 1  3
or MATH 203  (3) Principles of Statistics 1
PLNT 201  (3) Comparative Plant Biology
or PLNT 211  (3) Principles of Plant Science
At least two of the following: 6
ABEN 214 (3) Surveying
ABEN 217 (3) Hydrology and Drainage
or GEOG 322 (3) Hydrology
ABEN 416 (3) Engineering for Land Development
AEPH 201 (3) Introductory Meteorology
WILD 333 (3) Physical and Biological Aspects of Pollution

At least three of the following: 9 or 10
AEMA 306 (3) Mathematical Methods in Ecology
BIOL 465 (3) Conservation Biology
MICR 331 (3) Microbial Ecology
PLNT 358 (3) Flowering Plant Diversity
SOIL 335 (3) Soil Ecology and Management
WILD 401 (4) Fisheries and Wildlife Management
WOOD 410 (3) The Forest Ecosystem

At least three of the following: 9
AGRI 435 (3) Soil and Water Quality Management
SOIL 315 (3) Soil Fertility and Fertilizers
SOIL 326 (3) Soil Genesis and Classification
SOIL 331 (3) Soil Physics
SOIL 410 (3) Soil Chemistry
NRSC 521 (3) Soil Microbiology and Biochemistry

At least one of the following: 3
GEOG 201 (3) Geographical Information Systems 1
ABEN 330 (3) GIS for Biosystems Engineering
WILD 310 (3) Air Photo and Imagery Interpretation

1 Downtown Campus

Note: Other courses on the Downtown Campus may be equivalent to some required courses; consult the Academic Adviser. Course substitutions must be approved by the Committee on Academic Standing.

WILDLIFE BIOLOGY MAJOR

Required Courses: 37 credits.
Complementary Courses: 27 credits.
Electives: to meet the requirement of 90 credits for the degree.

Required Courses: 37 CREDITS
AEBI 200 Biology of Organisms 3
AEBI 205 Principles of Ecology 3
AEMA 310 Statistical Methods 1 3
CELL 204 Genetics 4
FDSC 211 Biochemistry 1 3
PLNT 201 Comparative Plant Biology 3
PLNT 358 Flowering Plant Diversity (Prereq: AEBI 201) 3
WILD 401 Fisheries and Wildlife Management (Prereq: PLNT 358) 4
WILD 410 Wildlife Ecology 3
WILD 41D1 Seminar 1
WILD 41D2 Seminar 1
ZOOI 307 Natural History of the Vertebrates 3
ZOOI 312 Zoological Systematics and Evolution 3

Complementary Courses: 27 CREDITS
9 credits from List A (Organismal Biology)
BIOL 327 (3) Herpetology
WILD 350 (3) Mammalogy
WILD 420 (3) Ornithology
ZOOI 311 (3) Ethology
ZOOI 424 (3) Parasitology

18 credits from List B (Integration and Applications)
AEMA 306 (3) Mathematical Methods in Ecology
AGEC 333 (3) Resource Economics
ANSC 323 (4) Mammalian Physiology
BIOL 465 (3) Conservation Biology
NRSC 497D1 (2.5) Project 2
NRSC 497D2 (2.5) Project 2
NUTR 361 (3) Environmental Toxicology
PLNT 460 (3) Plant Ecology
WILD 382 (3) Fish and Wildlife Propogation
WILD 415 (2) Conservation Law
WILD 421 (3) Wildlife Conservation
WILD 437 (3) Assessing Environmental Impact
WILD 475 (3) Desert Ecology
WOOD 410 (3) The Forest Ecosystem
WOOD 441 (3) Integrated Forest Management
ZOOI 313 (3) Zoogeography
ZOOI 315 (3) Science of Inland Waters

1.5 Plant Science

BOTANICAL SCIENCE MAJOR

Required Courses: 42 credits.

Complementary Courses: 18 credits, selected from an approved list in consultation with the Academic Adviser; taken in either the Ecology or the Molecular Option.

Electives: to meet the minimum requirement of 90 credits for the degree.

Note: courses marked with an asterisk (*) are offered on the Downtown Campus.

CREDITS 42
AEBI 200 Biology of Organisms 3
AEBI 202 Cellular Biology 3
AEBI 205 Principles of Ecology 3
AEMA 310 Statistical Methods 1 3
CELL 204 Genetics 4
FDSC 211 Biochemistry 1 3
PLNT 201 Comparative Plant Biology 3
PLNT 220 Introduction to Vascular Plants 1
PLNT 221 Introduction to Fungi 1
PLNT 353 Plant Structure and Function 4
PLNT 358 Flowering Plant Diversity 3
PLNT 458 Flowering Plant Systematics 3
PLNT 460 Plant Ecology 3
PLNT 489 Project Planning and Proposal 1
PLNT 490 Research Project 2
PLNT 495 Seminar 1 1
PLNT 496 Seminar 2 1

Complementary Courses 18
Either the Ecology Option or the Molecular Option

Ecology Option: 18 CREDITS
at least 12 credits must be chosen from the following:
AEMA 306 (3) Mathematical Methods in Ecology
AGEC 340 (3) Principles of Ecological Agriculture
*BIOI 324 (3) Ecological Genetics
*BIOI 331 (3) Ecology and Behaviour Field Course
*BIOI 334 (3) Field course in Applied Tropical Ecology
*BIOI 465 (3) Conservation Biology
*BIOI 483 (3) Stat. Approaches in Ecology and Evolution
*GEOG 350 (3) Ecological Biogeography
MICR 331 (3) Microbial Ecology
WILD 415 (2) Conservation Law
WILD 437 (3) Assessing Environmental Impact
WOOD 410 (3) The Forest Ecosystem
WOOD 420 (3) Environmental Issues in Forestry
ZOOL 315 (3) Science of Inland Waters
the remaining credits, if any, to be chosen from the Molecular
Option Complementary Course list or from the General
Complementary Course list given below.

**Molecular Option: 18**

at least 12 credits must be chosen from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEPI 306</td>
<td>Biological Instrumentation</td>
</tr>
<tr>
<td>*BIOI 301</td>
<td>Laboratory in Molecular and Cellular Biology</td>
</tr>
<tr>
<td>*BIOI 303</td>
<td>Developmental Biology</td>
</tr>
<tr>
<td>*BIOI 333</td>
<td>Plant Biotechnology</td>
</tr>
<tr>
<td>BTEC 501</td>
<td>Bioinformatics</td>
</tr>
<tr>
<td>CELL 500</td>
<td>Plant Molecular Genetics</td>
</tr>
<tr>
<td>CELL 501</td>
<td>Plant Molecular Biology and Genetics</td>
</tr>
<tr>
<td>FDSC 212</td>
<td>Biochemistry Laboratory</td>
</tr>
<tr>
<td>MICR 200</td>
<td>Laboratory Methods in Microbiology</td>
</tr>
<tr>
<td>MICR 338</td>
<td>Bacterial Molecular Genetics</td>
</tr>
<tr>
<td>PARA 400</td>
<td>Eukaryotic Cells and Viruses</td>
</tr>
<tr>
<td>PLNT 525</td>
<td>Advanced Micropropagation</td>
</tr>
<tr>
<td>PLNT 535</td>
<td>Plant Breeding</td>
</tr>
</tbody>
</table>

the remaining credits, if any, to be chosen from the Ecology
Option Complementary Course list or from the General
Complementary Course list given below.

**BOTANICAL SCIENCE MAJOR, GENERAL COMPLEMENTARY COURSES:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>*BIOI 555</td>
<td>Functional Ecology of Trees</td>
</tr>
<tr>
<td>NUTR 512</td>
<td>Herbs, Food and Phytochemicals</td>
</tr>
<tr>
<td>PLNT 215</td>
<td>Orientation in Plant Science</td>
</tr>
<tr>
<td>PLNT 304</td>
<td>Biology of Fungi</td>
</tr>
<tr>
<td>PLNT 305</td>
<td>Plant Pathology</td>
</tr>
<tr>
<td>PLNT 310</td>
<td>Plant Propagation</td>
</tr>
<tr>
<td>PLNT 434</td>
<td>Weed Biology and Control</td>
</tr>
<tr>
<td>PLNT 450</td>
<td>Special Topics Plant Science</td>
</tr>
<tr>
<td>PLNT 451</td>
<td>Special Topics Plant Science</td>
</tr>
<tr>
<td>SOIL 210</td>
<td>Principles of Soil Science</td>
</tr>
</tbody>
</table>

2 Arts

**2.1 Anthropology**

**MINOR CONCENTRATION IN SOCIO-CULTURAL ANTHROPOLOGY** (Expandable) (18 credits)

**Complementary Courses** (18 credits)

6 credits, two 200-level courses selected from:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 202</td>
<td>Comparative Cultures</td>
</tr>
<tr>
<td>ANTH 203</td>
<td>Human Evolution</td>
</tr>
<tr>
<td>ANTH 204</td>
<td>Symbol Systems and Ideologies</td>
</tr>
<tr>
<td>ANTH 205</td>
<td>Cultures of the World</td>
</tr>
<tr>
<td>ANTH 206</td>
<td>Environment and Culture</td>
</tr>
<tr>
<td>ANTH 207</td>
<td>Ethnography through Film</td>
</tr>
<tr>
<td>ANTH 209</td>
<td>Anthropology of Religion</td>
</tr>
<tr>
<td>ANTH 212</td>
<td>Anthropology of Development</td>
</tr>
<tr>
<td>ANTH 214</td>
<td>Violence, Warfare, Culture</td>
</tr>
<tr>
<td>ANTH 227</td>
<td>Medical Anthropology</td>
</tr>
</tbody>
</table>

3 credits, one Area course selected from:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 306</td>
<td>Native Peoples’ History in Canada</td>
</tr>
<tr>
<td>ANTH 321</td>
<td>Peoples and Cultures of Africa</td>
</tr>
<tr>
<td>ANTH 322</td>
<td>Social Change in Modern Africa</td>
</tr>
<tr>
<td>ANTH 326</td>
<td>Peoples of Central and South America</td>
</tr>
<tr>
<td>ANTH 327</td>
<td>Peoples of South Asia</td>
</tr>
<tr>
<td>ANTH 328</td>
<td>Peoples and Cultures of South-East Asia</td>
</tr>
<tr>
<td>ANTH 329</td>
<td>Modern Chinese Society and Change</td>
</tr>
<tr>
<td>ANTH 332</td>
<td>Peoples of Oceania</td>
</tr>
<tr>
<td>ANTH 337</td>
<td>Mediterranean Society and Culture</td>
</tr>
<tr>
<td>ANTH 338</td>
<td>Native Peoples of North America</td>
</tr>
</tbody>
</table>

ANTH 340 (3) Middle Eastern Society and Culture
ANTH 415 (3) Problems in African Anthropology
ANTH 427 (3) Social Change in South Asia
ANTH 436 (3) North American Native Peoples

9 credits of additional Anthropology courses of which no more
than 3 credits may be at the 200 level.

**MINOR CONCENTRATION IN ANTHROPOLOGICAL ARCHAEOLOGY** (Expandable) (18 credits)

**Required Course** (3 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 201</td>
<td>Prehistoric Archaeology</td>
</tr>
</tbody>
</table>

**Complementary Courses** (15 credits)

3 credits, one Area course selected from:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 317</td>
<td>Prehistory of North America</td>
</tr>
<tr>
<td>ANTH 331</td>
<td>Prehistory of East Asia</td>
</tr>
<tr>
<td>ANTH 335</td>
<td>Ancient Egyptian Civilization</td>
</tr>
<tr>
<td>ANTH 345</td>
<td>Prehistory of Africa</td>
</tr>
<tr>
<td>ANTH 347</td>
<td>Paleolithic Cultures of Europe</td>
</tr>
<tr>
<td>ANTH 348</td>
<td>Early Prehistory of the New World</td>
</tr>
</tbody>
</table>

12 credits, selected from:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 203</td>
<td>Human Evolution</td>
</tr>
<tr>
<td>ANTH 313</td>
<td>Comparative Studies of Early Civilizations</td>
</tr>
<tr>
<td>ANTH 317</td>
<td>Prehistory of North America</td>
</tr>
<tr>
<td>ANTH 331</td>
<td>Prehistory of East Asia</td>
</tr>
<tr>
<td>ANTH 335</td>
<td>Ancient Egyptian Civilization</td>
</tr>
<tr>
<td>ANTH 345</td>
<td>Prehistory of Africa</td>
</tr>
<tr>
<td>ANTH 347</td>
<td>Paleolithic Cultures of Europe</td>
</tr>
<tr>
<td>ANTH 348</td>
<td>Early Prehistory of the New World</td>
</tr>
<tr>
<td>ANTH 359</td>
<td>History of Archaeological Theory</td>
</tr>
<tr>
<td>ANTH 403</td>
<td>Current Issues in Archaeology</td>
</tr>
<tr>
<td>ANTH 413</td>
<td>Gender in Archaeology</td>
</tr>
<tr>
<td>ANTH 417</td>
<td>Ethnoarchaeology</td>
</tr>
<tr>
<td>ANTH 419</td>
<td>Archaeology of Hunter-Gatherers</td>
</tr>
<tr>
<td>ANTH 420</td>
<td>Lithic Technology and Analysis</td>
</tr>
<tr>
<td>ANTH 431</td>
<td>Problems in East Asian Archaeology</td>
</tr>
</tbody>
</table>

**MAJOR CONCENTRATION IN ANTHROPOLOGY** (36 credits)

**Complementary Courses** (36 credits)

6 credits selected from the 200-level courses in Anthropology

6 credits, two Core courses (350-level) selected from:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 352</td>
<td>History of Anthropological Theory</td>
</tr>
<tr>
<td>ANTH 355</td>
<td>Theories of Culture and Society</td>
</tr>
<tr>
<td>ANTH 357</td>
<td>Archaeological Methods</td>
</tr>
<tr>
<td>ANTH 358</td>
<td>Process of Anthropological Research</td>
</tr>
<tr>
<td>ANTH 359</td>
<td>History of Archaeological Theory</td>
</tr>
</tbody>
</table>

6 credits, two Area courses selected from:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 306</td>
<td>Native Peoples’ History in Canada</td>
</tr>
<tr>
<td>ANTH 321</td>
<td>Peoples and Cultures of Africa</td>
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<td>Mediterranean Society and Culture</td>
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<td>ANTH 338</td>
<td>Native Peoples of North America</td>
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<td>ANTH 340</td>
<td>Middle Eastern Society and Culture</td>
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<tr>
<td>ANTH 415</td>
<td>Problems in African Anthropology</td>
</tr>
<tr>
<td>ANTH 427</td>
<td>Social Change in South Asia</td>
</tr>
<tr>
<td>ANTH 436</td>
<td>North American Native Peoples</td>
</tr>
<tr>
<td>ANTH 437</td>
<td>Mediterranean Society and Culture</td>
</tr>
<tr>
<td>ANTH 331</td>
<td>Prehistory of East Asia</td>
</tr>
<tr>
<td>ANTH 335</td>
<td>Ancient Egyptian Civilization</td>
</tr>
<tr>
<td>ANTH 345</td>
<td>Prehistory of Africa</td>
</tr>
<tr>
<td>ANTH 347</td>
<td>Paleolithic Cultures of Europe</td>
</tr>
</tbody>
</table>
ANTH 348 (3) Early Prehistory of the New World
ANTH 552 (3) Problems in the Prehistory of Eastern North America

6 credits, two 400-level Anthropology courses
12 credits of additional Anthropology courses of which no more than 6 credits may be at the 200 level.

2.2 East Asian Studies

MAJOR CONCENTRATION IN EAST ASIAN STUDIES
(36 credits)

Complementary Courses (36 credits)
6 credits, two of the following introductory East Asian courses
EAST 211 (3) Introduction to East Asian Culture: China
EAST 212 (3) Introduction to East Asian Culture: Japan
EAST 213 (3) Introduction to East Asian Culture: Korea
6 - 9 credits to be chosen from the following East Asian language courses;
EAST 220; EAST 230; EAST 240; EAST 320; EAST 330;
EAST 340; EAST 433; EAST 434; EAST 420; EAST 430;
EAST 440; EAST 520; EAST 530; EAST 540; EAST 543;
EAST 544; EAST 535; EAST 536; EAST 537.
(Admission to language courses is subject to placement tests)
6 - 18 credits, at least 3 of which must be at the 400 or 500 level, in East Asian Culture and Literature, chosen from the following courses:
EAST 313 (3) Current Topics: Korean Studies 1
EAST 314 (3) Current Topics: Korean Studies 2
EAST 315 (3) Modern Korean Literature 1
EAST 351 (3) Women in Chinese Literature
EAST 353 (3) Twentieth Century China in Film and Fiction
EAST 354 (3) Taoist and Buddhist Apocalypses
EAST 362 (3) Japanese Cinema
EAST 363 (3) Aesthetics and Politics of Vision in Premodern Japan
EAST 364 (3) Mass Culture and Postwar Japan
EAST 452 (3) Song and Lyric in Traditional China
EAST 453 (3) History of Chinese Fiction
EAST 455 (3) Chinese Drama and Popular Culture
EAST 461 (3) Japanese Novel
EAST 462 (3) Japan in Asia
EAST 464 (3) Image/Text/Performance
EAST 466 (3) Feminism and Japan
EAST 515 (3) Seminar: Beyond Orientalism
EAST 550 (3) Classical Chinese Poetry
EAST 551 (3) Technologies of the Self in Early China
EAST 562 (3) Japanese Literary Theory and Practice
EAST 563 (3) Images, Ideograms, Aesthetics
EAST 564 (3) Structures of Modernity: Japan
EAST 590 (3) Multiple Narratives of the "Orient"
or equivalent chosen in consultation with the Majors adviser.
6 - 18 credits, at least 3 of which must be at the 400 or 500 level in East Asian Area Studies. Courses from at least two disciplines or departments must be included.

2.3 French Language and Literature

CONCENTRATION MINEURE LANGUE ET LITTÉRATURE FRANÇAISES – LETTRES (18 crédits)
(Convertible en Concentration majeure Lettres)

Cours obligatoires (9 crédits)
FREN 250 (3) Littérature française avant 1800
FREN 251 (3) Littérature française depuis 1800
FREN 252 (3) Littérature québécoise

Cours complémentaires (9 crédits)
9 crédits parmi les cours de littérature française, québécoise ou francophone offerts par le Département de langue et littérature françaises (de niveau 300 ou plus).

CONCENTRATION MINEURE LANGUE ET LITTÉRATURE FRANÇAISES – LETTRES ET TRADUCTION (18 crédits)
(Convertible en Concentration majeure Lettres et traduction)

Cours obligatoires (9 crédits)
FREN 250 (3) Littérature française avant 1800
FREN 251 (3) Littérature française depuis 1800
FREN 252 (3) Littérature québécoise

Cours complémentaires (9 crédits)
9 crédits parmi:
FREN 239 (3) Stylistique comparée
FREN 244 (3) Traduction 1
FREN 346 (3) Traduction 2
FREN 349 (3) Traduction 3
FREN 431 (3) Traduction 4
FREN 441 (3) Thème anglais
FREN 443 (3) Version littéraire

CONCENTRATION MINEURE LANGUE ET LITTÉRATURE FRANÇAISES – THÉORIE ET CRITIQUE LITTÉRAIRES (18 crédits)
(Convertible en Concentration majeure Lettres)

Cours obligatoires (6 crédits)
FREN 394 (3) Théorie de la traduction
FREN 490 (3) Critique et théorie

Cours complémentaires (12 crédits)
3 crédits parmi:
FREN 250 (3) Littérature française avant 1800
FREN 251 (3) Littérature française depuis 1800
FREN 252 (3) Littérature québécoise

3 crédits parmi:
FREN 334 (3) Méthodes d'analyse des textes littéraires 1
FREN 335 (3) Méthodes d'analyse des textes littéraires 2

6 crédits parmi les cours de littérature française, québécoise ou francophone offerts par le Département de langue et littérature françaises (de niveau 300 ou plus).

CONCENTRATION MAJEURE LANGUE ET LITTÉRATURE FRANÇAISES – LETTRES (36 crédits)

Cours obligatoires (9 crédits)
FREN 250 (3) Littérature française avant 1800
FREN 251 (3) Littérature française depuis 1800
FREN 252 (3) Littérature québécoise

Cours complémentaires (27 crédits)
3 crédits parmi:
FREN 334 (3) Méthodes d'analyse des textes littéraires 1
FREN 335 (3) Méthodes d'analyse des textes littéraires 2

6 crédits parmi:
FREN 201 (3) Composition 1
FREN 203 (3) Composition 2
FREN 245 (3) Grammaire avancée
FREN 247 (3) Dissertation

18 crédits parmi les cours de littérature française, québécoise ou francophone offerts par le Département de langue et littérature françaises (de niveau 300 ou plus).

CONCENTRATION MAJEURE LANGUE ET LITTÉRATURE FRANÇAISES – LETTRES ET TRADUCTION (36 crédits)

Cours obligatoires (15 crédits)
FREN 231 (3) Linguistique française
FREN 250 (3) Littérature française avant 1800
FREN 251 (3) Littérature française depuis 1800
FREN 252 (3) Littérature québécoise
FREN 347 (3) Terminologie générale

Cours complémentaires (21 crédits)
12 crédits parmi:
FREN 239 (3) Stylistique comparée
FREN 244 (3) Traduction 1
FREN 346 (3) Traduction 2

McGill University, Calendar Supplement – Undergraduate Programs 2002-2003 (September 3, 2002) 7
FREN 349 (3) Traduction 3
FREN 431 (3) Traduction 4
FREN 441 (3) Thème anglais
FREN 443 (3) Version littéraire
FREN 494 (3) Traduction spécialisée

9 crédits parmi les cours de littérature française, québécoise ou francophone offerts par le Département de langue et littérature françaises (de niveau 300 ou plus).

PROGRAMME DE SPÉCIALISATION, OPTION LETTRES
(60 crédits)

Cours obligatoires (42 crédits)
FREN 250 (3) Littérature française avant 1800
FREN 251 (3) Littérature française depuis 1800
FREN 252 (3) Littérature québécoise
FREN 352 (3) Lectures 1
FREN 353 (3) Lectures 2
FREN 374 (3) Lectures 3
FREN 395 (3) Travaux pratiques 1
FREN 396 (3) Travaux pratiques 2
FREN 397 (3) Travaux pratiques 3
FREN 464D1 (3) Mémoire de spécialisation
FREN 464D2 (3) Mémoire de spécialisation
FREN 490 (3) Critique et théorie
FREN 493 (3) Lectures 4
FREN 497 (3) Travaux pratiques 4

Cours complémentaires (18 crédits)
6 crédits parmi les cours suivants (U3):
FREN 461 (3) Questions de littérature 1
FREN 472 (3) Questions de littérature 2
FREN 498 (3) Questions de littérature 3
FREN 499 (3) Questions de littérature 4

12 crédits au Département, répartis comme suit (maximum de 6 crédits dans les cours de niveau 200; minimum de 6 crédits dans les cours de niveau 400):
3 crédits de littérature/civilisation française
3 crédits de littérature/civilisation québécoise
3 crédits de langue/traduction
3 crédits au choix

En plus des cours du programme de Spécialisation, les étudiants doivent faire une Concentration mineure (18 crédits) dans un département autre que celui de leur programme de Spécialisation.

En Spécialisation, les étudiants doivent conserver au minimum une moyenne de B pour l’ensemble du programme, et un CGPA de 3.00.

PROGRAMME DE SPÉCIALISATION, OPTION LETTRES ET TRADUCTION (60 crédits)

Cours obligatoires (48 crédits)
FREN 231 (3) Linguistique française
FREN 244 (3) Traduction 1
FREN 250 (3) Littérature française avant 1800
FREN 251 (3) Littérature française depuis 1800
FREN 252 (3) Littérature québécoise
FREN 346 (3) Traduction 2
FREN 347 (3) Terminologie générale
FREN 439 (3) Traduction 3
FREN 490 (3) Critique et théorie
FREN 493 (3) Lectures 4
FREN 494 (3) Traduction spécialisée

Cours complémentaires (12 crédits)
(6 au moins de ces crédits doivent être de niveau 400)
6 crédits de langue/traduction

6 crédits de littérature/civilisation française/québécoise
Les étudiants peuvent aussi suivre les cours Questions de littérature 1, 2, 3, 4 (FREN 461, FREN 472, FREN 498, FREN 499) et s'inscrire au FREN 464D1/D2 Mémoire de spécialisation.

En plus des cours du programme de Spécialisation, les étudiants doivent faire une Concentration mineure (18 crédits) dans un département autre que celui de leur programme de Spécialisation.

En Spécialisation, les étudiants doivent conserver au minimum une moyenne de B pour l’ensemble du programme, et un CGPA de 3.00.

DOUBLE SPÉCIALISATION, OPTION LETTRES (36 crédits)

Cours obligatoires (24 crédits)
FREN 250 (3) Littérature française avant 1800
FREN 251 (3) Littérature française depuis 1800
FREN 252 (3) Littérature québécoise
FREN 352 (3) Lectures 1
FREN 353 (3) Lectures 2
FREN 374 (3) Lectures 3
FREN 490 (3) Critique et théorie
FREN 493 (3) Lectures 4

Cours complémentaires (12 crédits)
3 crédits parmi les Travaux pratiques (T.P.) le FREN 395: T.P. I, est recommandé;
9 crédits de niveau 200, 300 ou 400 parmi les cours de littérature offerts par le Département.
Les «cours de service» ne pourront être crédités comme cours complémentaires.

En Spécialisation, les étudiants doivent conserver au minimum une moyenne de B pour l’ensemble du programme, et un CGPA de 3.00.

DOUBLE SPÉCIALISATION, OPTION LETTRES ET TRADUCTION (36 crédits)

Cours obligatoires (30 crédits)
FREN 231 (3) Linguistique française
FREN 244 (3) Traduction 1
FREN 250 (3) Littérature française avant 1800
FREN 251 (3) Littérature française depuis 1800
FREN 252 (3) Littérature québécoise
FREN 346 (3) Traduction 2
FREN 347 (3) Terminologie générale
FREN 349 (3) Traduction 3
FREN 431 (3) Traduction 4
FREN 439 (3) Traduction 5
FREN 490 (3) Critique et théorie
FREN 493 (3) Lectures 4

Cours complémentaires (6 crédits)
choisis parmi les cours complémentaires de langue/traduction offerts par le Département; 3 crédits doivent être de niveau 400.

En Spécialisation, les étudiants doivent conserver au minimum une moyenne de B pour l’ensemble du programme, et un CGPA de 3.00.

2.4 Geography

MINOR CONCENTRATION IN GEOGRAPHY (18 credits)
[Expandable into the Major Concentration in Geography, but not into the Major Concentration in Geography (Urban Systems).]

The Minor Concentration in Geography is designed to provide students in the Faculty of Arts with an overview of basic elements of human geography at the introductory and advanced level.

Complementary Courses (18 credits)
9 credits (3 courses) from:
GEOG 201 (3) Introductory Geo-Information Science
GEOG 203 (3) Environmental Systems
GEOG 210 (3) Global Places and Peoples
GEOG 216 (3) Geography of the World Economy
GEOG 217 (3) Introduction to Urban Geography
GEOG 272 (3) Landforms and Environmental Systems
9 credits (3 courses) from any Geography courses at the 300- or 400-level.

B.A. HONOURS PROGRAM IN GEOGRAPHY (60 credits)
The B.A. Honours program is more concentrated and focused than the Major Concentration. Students must maintain a minimum program GPA of 3.00 and complete a 6-credit Honours thesis. Honours students are encouraged to participate in 500-level seminars with graduate students.

Required Courses (15 credits)
- GEOG 201 (3) Introductory Geo-Information Science
- GEOG 351 (3) Quantitative Methods in Geography
- GEOG 381 (3) Evolution of Geography
- GEOG 491D1 (3) Honours Research and Reading
- GEOG 491D2 (3) Honours Research and Reading

Complementary Courses (45 credits)
12 credits of introductory courses, four of:
- GEOG 203 (3) Environmental Systems
- GEOG 210 (3) Global Places and Peoples
- GEOG 216 (3) Geography of the World Economy
- GEOG 217 (3) Introduction to Urban Geography
- GEOG 272 (3) Landforms & Environmental Systems
3 credits of statistics*, one of:
- BIOL 373 (3) Biostatistical Analysis
- MATH 203 (3) Principles of Statistics
- PSYC 204 (3) Introduction to Psychological Statistics
- SOCIO 350 (3) Social Research
* Credit given for statistics courses is subject to certain restrictions, see Faculty Degree Requirements.

3 credits from field courses:
- GEOG 290 (1) Local Geographical Excursion (In 2002 reserve Sept. 27-29)
- GEOG 398 (3) Field Studies in Human Geography
- GEOG 494 (3) Urban Field Studies
- GEOG 495 (3) Field Studies - Physical Geography
- GEOG 496 (3) Geographical Excursion
- GEOG 497 (3) Ecology of Coastal Waters
- GEOG 499 (3) Subarctic Field Studies in Geography
18 additional credits in Geography in consultation with the adviser.
9 credits at the 300 or 400-level or above outside Geography. Courses outside Geography, at the 300-level or higher, are selected from the humanities, social sciences, or engineering and approved by the adviser as related to the focus within Geography.

B.A. JOINT HONOURS PROGRAM – GEOGRAPHY COMPONENT (36 credits)

Required Courses (9 credits)
- GEOG 201 (3) Introductory Geo-Information Science
- GEOG 351 (3) Quantitative Methods in Geography
- GEOG 381 (3) Geographic Thought and Practice

Complementary Courses (27 credits)
12 credits of introductory courses, four of:
- GEOG 203 (3) Environmental Systems
- GEOG 210 (3) Global Places and Peoples
- GEOG 216 (3) Geography of the World Economy
- GEOG 217 (3) Introduction to Urban Geography
- GEOG 272 (3) Landforms & Environmental Systems
3 credits of statistics*, one of:
- BIOL 373 (3) Biostatistical Analysis
- MATH 203 (3) Principles of Statistics
- PSYC 204 (3) Introduction to Psychological Statistics
- SOCIO 350 (3) Social Research
* Credit given for statistics courses is subject to certain restrictions, see Faculty Degree Requirements.

3 or 6 credits:
- GEOG 491D1 (3) Honours Research and Reading
- GEOG 491D2 (3) Honours Research and Reading
or, for those who submit the thesis in the other department, GEOG 492D1 (1.5) Joint Honours Research and Reading

GEOG 492D2 (1.5) Joint Honours Research and Reading
* Where both departments require an Honours Thesis, the student has the option of submitting the thesis to either department. If the thesis is submitted to the other department, then the student must register for GEOG 492D1/GEOG 492D2. In some cases, it is required that the thesis be jointly supervised by faculty of both departments.
6 to 9 credits from a coherent set of Geography courses approved by the student’s adviser. A field course is desirable. Students who wish to study at the Honours level in two Arts disciplines can combine Joint Honours Program components from any two Arts disciplines.

Prior to registering for each Joint Honours component, students must see advisers in the respective departments for approval of their selection. Departmental advisers will only approve combinations that are feasible, given the nature of the research project that would be involved. Students who neglect to obtain prior approval may jeopardize their graduation.

Joint Honours students must maintain a minimum CGPA of 3.00 and maintain a minimum program GPA of 3.00.

2.5 German Studies

MINOR CONCENTRATION IN GERMAN LITERATURE (Expandable to the Major Concentration in German Literature) (18 credits)
This is offered as a special program for students who already possess the necessary language skills before coming to McGill, or have acquired the competence by completing the intensive sequence (GERM 200 and GERM 300) as elective courses in their first year.

Required Course (6 credits)
- GERM 325 (6) German Language, Intensive Advanced

Complementary Courses (12 credits)
12 credits of courses in German literature or culture, given in German, such as:
- GERM 330 (3) Germany after Reunification
- GERM 352 (3) German Literature in the 19th Century
- GERM 353 (3) 19th Century Literary Topics
- GERM 360 (3) German Literature - 1890-1918
- GERM 361 (3) German Literature - 1918-1945
- GERM 362 (3) 20th Century Literature Topics
- GERM 363 (3) German Postwar Literature
- GERM 380 (3) 18th Century German Literature
- GERM 400 (3) Interdisciplinary Seminar in Contemporary German Studies
- GERM 412 (3) Heros, Lovers and Crusaders
- GERM 450 (3) The Classical Period in German Literature
- GERM 451 (3) German Romanticism
- GERM 455 (3) Women of the Romantic Era
- GERM 511 (3) Middle High German Literature
- GERM 561 (3) German Literature of the Baroque Period

MINOR CONCENTRATION IN GERMAN LITERATURE AND CULTURE IN TRANSLATION (18 credits) (Non-expandable)
Complementary Courses (18 credits)
18 credits chosen from courses in German literature or culture in translation, such as:
- GERM 259 (3) Individual & Society German Literature 1
- GERM 260 (3) Individual & Society German Literature 2
- GERM 354 (3) Literary Approach to Song
- GERM 355 (3) Nietzsche and Wagner
- GERM 358 (3) Franz Kafka
- GERM 359 (3) Bertolt Brecht
- GERM 364 (3) German Culture: Gender and Society
- GERM 366 (3) Postwar German Literature/Film
- GERM 367 (3) Topics in German Thought
GERM 371 (3) Cultural Change and Evolution of German
GERM 382 (3) Faust in European Literature

MAJOR CONCENTRATION IN GERMAN LANGUAGE AND LITERATURE (36 credits)

Required Courses (18 credits*)
GERM 200 (6) German Language, Intensive Beginners’
or GERM 202D1 (3) German Language, Beginners’
and GERM 202D2 (3) German Language, Beginners’
GERM 300 (6) German Language, Intensive Intermediate
or GERM 307D1 (3) German Language, Intermediate
and GERM 307D2 (3) German Language, Intermediate
GERM 325 (6) German Language, Intensive Advanced

* Students with advanced standing in the language will substitute language courses with more advanced courses in language, culture or literature.

Complementary Courses (18 credits)
18 credits of courses in literature distributed across different periods chosen from the courses listed below*:

at least one 3-credit course in 20th Century:
GERM 331 (3) Germany after Reunification
GERM 354 (3) Literary Approach to Song
GERM 360 (3) German Literature - 1890-1918
GERM 361 (3) German Literature - 1918-1945
GERM 362 (3) 20th Century Literature Topics
GERM 363 (3) German Postwar Literature
GERM 364 (3) German Culture: Gender and Society
GERM 365 (3) Media Studies in German
GERM 366 (3) Postwar German Literature/Film
GERM 367 (3) Topics in German Thought

at least one 3-credit course in Classicism or Romanticism:
GERM 450 (3) The Classical Period in German Literature
GERM 451 (3) German Romanticism
GERM 455 (3) Women of the Romantic Era

at least one 3-credit course from any other period:
GERM 352 (3) German Literature in the 19th Century
GERM 353 (3) 19th Century Literary Topics
GERM 380 (3) 18th Century German Literature
GERM 382 (3) Faust in European Literature
GERM 412 (3) Heros, Lovers and Crusaders
GERM 511 (3) Middle High German Literature
GERM 561 (3) German Literature of the Baroque Period

9 credits selected from any of the literature courses above not already taken or from:
GERM 330 (3) Landeskunde
GERM 331 (3) Germany after Reunification
GERM 400 (3) Interdisciplinary Seminar in Contemporary German Studies

* Courses on German literature or culture given in English may be substituted for any courses in the above lists, to a maximum of 6 credits.

MAJOR CONCENTRATION IN GERMAN LITERATURE AND CULTURE (36 credits)

Note: All German literature courses given in German have as prerequisite a linguistic competence as acquired in GERM 325 or equivalent. Such equivalence will be established by the program adviser.

Complementary Courses (36 credits)
9 credits chosen from:
GERM 331 (3) Germany after Reunification
GERM 360 (3) German Literature - 1890-1918
GERM 361 (3) German Literature - 1918-1945
GERM 362 (3) 20th Century Literature Topics
GERM 363 (3) German Postwar Literature

15 credits chosen from:
GERM 352 (3) German Literature in the 19th Century
GERM 353 (3) 19th Century Literary Topics
GERM 380 (3) 18th Century German Literature
GERM 412 (3) Heros, Lovers and Crusaders
GERM 450 (3) The Classical Period in German Literature
GERM 451 (3) German Romanticism
GERM 455 (3) Women of the Romantic Era
GERM 511 (3) Middle High German Literature
GERM 561 (3) German Literature of the Baroque Period

12 credits chosen from:
GERM 259 (3) Individual and Society: German Literature 1
GERM 260 (3) Individual and Society: German Literature 2
GERM 354 (3) Literary Approach to Song
GERM 355 (3) Nietzsche and Wagner
GERM 358 (3) Franz Kafka
GERM 359 (3) Bertolt Brecht
GERM 364 (3) German Culture: Gender and Society
GERM 365 (3) Media Studies in German
GERM 366 (3) Postwar German Literature/Film
GERM 367 (3) Topics in German Thought
GERM 371 (3) Cultural Change and Evolution of German
GERM 390 (3) Faust in European Literature
GERM 400 (3) Interdisciplinary Seminar in Contemporary German Studies

HONOURS PROGRAM IN GERMAN STUDIES (60 credits)

Required Courses (42 credits)
GERM 200 (6) German Language, Intensive Beginners’
GERM 300 (6) German Language, Intensive Intermediate
GERM 325 (6) German Language, Intensive Advanced
GERM 352 (3) German Literature in the 19th Century
GERM 360 (3) German Literature - 1890 to 1918
GERM 363 (3) German Postwar Literature
GERM 450 (3) The Classical Period in German Literature
GERM 451 (3) German Romanticism
GERM 511 (3) Middle High German Literature
GERM 575 (6) Honours Thesis

With permission of the adviser, students with advanced standing in German language will replace language courses for more advanced courses in language, culture or literature.

Complementary Courses (18 credits)
12 credits selected from:
GERM 331 (3) Germany after Reunification
GERM 353 (3) 19th Century Literary Topics
GERM 361 (3) German Literature - 1890 to 1945
GERM 362 (3) 20th Century Literature Topics
GERM 365 (3) Media Studies in German
GERM 380 (3) 18th Century German Literature
GERM 400 (3) Interdisciplinary Seminar in Contemporary German Studies

6 credits selected from:
GERM 259 (3) Individual & Society German Literature 1
GERM 260 (3) Individual & Society German Literature 2
GERM 336 (3) German Grammar Review
GERM 354 (3) Literary Approach to Song
GERM 355 (3) Nietzsche and Wagner
GERM 358 (3) Franz Kafka
GERM 359 (3) Bertolt Brecht
GERM 364 (3) German Culture: Gender and Society
GERM 367 (3) Topics in German Thought
GERM 371 (3) Cultural Change and Evolution of German
GERM 390 (3) Faust in European Literature
GERM 397 (3) Individual Reading Course
GERM 398 (3) Individual Reading Course
GERM 561 (3) German Literature of the Baroque Period or other suitable courses in the Department or in other related disciplines and departments with the approval of adviser.
JOINT HONOURS PROGRAM – GERMAN STUDIES COMPONENT (36 credits)

**Required Courses** (21 credits)
- GERM 200 (6) German Language, Intensive Beginners’
- GERM 300 (6) German Language, Intensive Intermediate
- GERM 325 (6) German Language, Intensive Advanced
- GERM 570 (3) Joint Honours Thesis

With permission of the adviser, students with advanced standing in German language will replace these courses for more advanced courses in language, culture or literature.

**Complementary Courses** (15 credits)
Selected from 400- to 500-level German literature and culture courses, from at least three centuries, with the approval of the adviser.

Joint Honours students must maintain a GPA of 3.30 in their program courses, and, according to Faculty regulations, a minimum CGPA of 3.00 in general.

**2.6 Humanistic Studies**

**MINOR CONCENTRATION IN HUMANISTIC STUDIES** (Expandable) (18 credits)

**Required Courses** (6 credits)
- HMST 296 (3) Western Humanistic Tradition 1
- HMST 297 (3) Western Humanistic Tradition 2

**Complementary Courses** (12 credits)
Courses from the list published on the Humanistic Studies website will be taken in the following manner:
- 3 credits History of Fine Arts
- 3 credits Social Science

and 6 credits, all of which must be at the 300-level or above as follows:
- (a) to acquire a more extensive knowledge of any ONE of the areas listed above;
- (b) to be used to construct individual interdisciplinary concentrations with the permission of the Humanistic Studies Office.

It is strongly recommended that this Minor Concentration be accompanied by Major and/or Minor Concentrations in literature and/or languages.

**MAJOR CONCENTRATION IN HUMANISTIC STUDIES** (36 credits)

**Required Courses** (6 credits)
- HMST 296 (3) Western Humanistic Tradition 1
- HMST 297 (3) Western Humanistic Tradition 2

**Complementary Courses** (30 credits)
Courses from the list published on the Humanistic Studies website will be taken in the following manner:
- 6 credits from the Humanities
- 6 credits History of Fine Arts
- 6 credits Social Science
- 3 credits Natural Science

and 9 credits, all of which must be at the 300-level or above as follows:
- (a) to be used to acquire a more extensive knowledge of any ONE of the areas listed above;
- (b) to be used to construct individual interdisciplinary concentrations with the permission of the Humanistic Studies Office.

It is strongly recommended that this Major Concentration be accompanied by Major and/or Minor Concentrations in literature and/or languages.

**2.7 International Development Studies**

**MINOR CONCENTRATION IN INTERNATIONAL DEVELOPMENT STUDIES** (18 credits) (Expandable)

**Required Courses** (6 credits)
- ECON 208 (3) Microeconomic Analysis & Applications
- ECON 313 (3) Economic Development 1

**Complementary Courses** (12 credits)
- Group A – a minimum of 3 credits selected from:
  - ANTH 212 (3) Anthropology of Development
  - GEOG 216 (3) Geography of the World Economy
  - POLI 227 (3) Developing Areas/Introduction
  - SOCI 254 (3) Development and Underdevelopment

Group B – the remaining credits to be selected from the IDS Complementary Course list, with the addition of ECON 314 Economic Development 2.

At least 9 of the 18 credits must be at the 300 level or above.

**MAJOR CONCENTRATION IN INTERNATIONAL DEVELOPMENT STUDIES** (36 credits)

**Required Courses** (12 credits)
- ECON 208 (3) Microeconomic Analysis & Applications
- ECON 313 (3) Economic Development 1
- ECON 314 (3) Economic Development 2
- INTD 497 (3) Research Seminar on International Development

**Complementary Courses** (24 credits)
- Group A – a minimum of 6 credits selected from:
  - ANTH 212 (3) Anthropology of Development
  - GEOG 216 (3) Geography of the World Economy
  - POLI 227 (3) Developing Areas/Introduction
  - SOCI 254 (3) Development and Underdevelopment

Group B – the remaining credits to be selected from the IDS Complementary Course list; at least 12 credits must be taken from one of the three categories.

At least 18 of the 36 credits must be at the 300 level or above.

**HONOURS PROGRAM IN INTERNATIONAL DEVELOPMENT STUDIES** (57 credits)

**Required Courses** (18 credits)
- ECON 208 (3) Microeconomic Analysis & Applications
- ECON 313 (3) Economic Development 1
- ECON 314 (3) Economic Development 2
- INTD 492 (6) IDS Thesis
- INTD 497 (3) Research Seminar on International Development

**Complementary Courses** (39 credits)
- No more than 21 credits can be taken in any one discipline.

Group A – at least 6 credits selected from:
- ANTH 212 (3) Anthropology of Development
- GEOG 216 (3) Geography of the World Economy
- POLI 227 (3) Developing Areas/Introduction
- SOCI 254 (3) Development and Underdevelopment

Group B – 24 to 33 credits to be selected from the IDS Complementary Course list; at least 12 credits must be taken from one of the three categories.
Group C – 0 to 9 credits of Introductory and/or Intermediate Language Training.

Students are strongly encouraged to master a language appropriate to an area of the developing world in which they have a particular interest.

Among the languages that are included in this option are Arabic, Chinese, French, Korean, Portuguese, Spanish, and Urdu. Other language options can be approved by the Honours Adviser.

Students who already have appropriate language capability, or who have distinct interests not likely to necessitate such training, may substitute an additional 9 credits from the Group B Complementary Courses.

At least 30 of the 57 credits must be at the 300 level or above. Nine credits at the 400 level are required.

JOINT HONOURS PROGRAM – INTERNATIONAL DEVELOPMENT STUDIES COMPONENT (36 credits)

Required Courses (12 credits)

ECON 208 (3) Microeconomic Analysis & Applications
ECON 313 (3) Economic Development 1
ECON 314 (3) Economic Development 2
INTD 497 (3) Research Seminar on International Development

Complementary Courses (24 credits)

No more than 15 credits can be taken in any one discipline.

Group A – at least 6 credits selected from:

ANTH 212 (3) Anthropology of Development
GEOG 216 (3) Geography of the World Economy
POLI 227 (3) Developing Areas/Introduction
SOC 254 (3) Development and Underdevelopment

Group B – 12 to 15 credits to be selected from the IDS Complementary Course list; at least 12 credits must be taken from one of the three categories.

Thesis - 3 to 6 credits

Students may either do a 6-credit thesis in IDS, or divide the thesis between INTD 491 and the other department.

INTD 491 (3) Independent Reading and Research
INTD 492 (6) IDS Thesis

At least 24 of the 36 credits must be at the 300 level or above. Six credits at the 400 level are required.

IDS COMPLEMENTARY COURSE LIST FOR MINOR, MAJOR, HONOURS, JOINT HONOURS

Development Theory and World View

ANTH 341 (3) Women in Cross-Cultural Perspective
ANTH 342 (3) Gender, Inequality and the State
ANTH 349 (3) Transformation of Developing Countries
ANTH 439 (3) Theories of Development
RELG 252 (3) Hinduism and Buddhism
RELG 253 (3) The Religions of East Asia
RELG 371 (3) Ethics of Violence/Non-Violence

Up to 6 credits of Group A courses (not previously counted) may be used in this category.

Regions

ANTH 321 (3) Peoples and Cultures of Africa
ANTH 322 (3) Social Change in Modern Africa
ANTH 326 (3) Peoples of Central and South America
ANTH 328 (3) Peoples and Cultures of South-East Asia
ANTH 329 (3) Modern Chinese Society and Change
ECON 411 (3) Economic Development: A World Area
ENGL 321 (3) Caribbean Fiction
FREN 313 (3) Francophone 3
HIST 197 (3) Race in Latin America
HIST 200 (3) Introduction to African History
HIST 201 (3) Modern African History
HIST 208 (3) Introduction to East Asian History
HIST 218 (3) Modern East Asian History
HIST 309 (3) History of Latin America to 1825
HIST 338 (3) China in Revolution 2: 1921-1997

HIST 360 (3) History of Latin America Since 1825
HIST 374 (3) West Africa Since 1800
HIST 381 (3) Health and Disease in Colonial Africa
HIST 382 (3) History of South Africa
HIST 419 (3) Central America
ISLA 411 (3) History of the Middle East, 1918-1945
POLI 319 (3) Politics of Latin America
POLI 322 (3) Developing Areas/South Asia
POLI 323 (3) Developing Areas/East Asia
POLI 324 (3) African Politics
POLI 340 (3) Developing Areas/Arab World
POLI 341 (3) Foreign Policy: The Middle East
POLI 349 (3) Foreign Policy: Asia
SOC 366 (3) Social Change in the Caribbean

Development Policies and Practices

AGEC 430 (3) Agriculture, Food and Resource Policy
AGEC 442 (3) Economics of International Agricultural Development
AGRI 411 (3) International Agriculture
ANTH 227 (3) Medical Anthropology
ANTH 324 (3) Economic Anthropology
ANTH 418 (3) Environment and Development
ANTH 445 (3) Property and Land Tenure
ECON 412 (3) Topics in Economic Development 1
ECON 416 (3) Topics in Economic Development 2
GEOG 404 (3) Environmental Management 2 (Panama Program only)
GEOG 407 (3) Contemporary Issues in Geography
GEOG 408 (3) Geography of Unequal Development
GEOG 410 (3) Geography of Underdevelopment: Current Problems
GEOG 498 (3) Humans in Tropical Environments (Panama Program only)
GEOG 510 (3) Humid Tropical Environments
INTD 490 (3) Development Field Research
MGCR 382 (3) International Business
MIME 524 (3) Mineral Resource Economics
NUTR 501 (3) Nutrition in Developing Countries
ORGB 380 (3) Cross-Cultural Management
POLI 30001 (3) Developing Areas/Revolution
POLI 423 (3) Politics of Ethno-Nationalism
POLI 445 (3) IPE: North-South Relations
POLI 450 (3) Peacebuilding
POLI 473 (3) Democracy and the Market
POLI 522 (3) Seminar: Developing Areas
SOC 222 (3) Urban Sociology
SOC 234 (3) Population and Society
SOC 335 (3) Sociology of State Repression
SOC 418 (3) Human Rights and Humanitarianism
SOC 520 (3) Migration and Immigrant Groups
SOC 550 (3) Sociology of Developing Societies
SOC 590 (3) Conflict and State Breakdown
SWRK 400 (3) Policy and Practice for Refugees
SWRK 532 (3) International Social Welfare

2.8 Italian Studies

MINOR CONCENTRATION IN ITALIAN STUDIES (18 credits) (Expandable)

Students with advanced standing in the language must substitute language courses with courses from groups B and C.

Complementary Courses (18 credits)

chosen from the following three groups:

0 - 12 credits Group A – Basic Language Courses.
6 - 18 credits Group B – Courses taught in Italian.
0 - 6 credits Group C – Courses taught in English.
MINOR CONCENTRATION IN ITALIAN CIVILIZATION
(18 credits) (Expandable)

Students with advanced standing in the language must substitute language courses with courses from groups B, C and D.

Complementary Courses (18 credits)
0 - 12 credits chosen from Group A – Basic Language Courses.
0 - 12 credits chosen from Group B – Courses taught in Italian,
6 - 18 credits chosen from Group C – Courses taught in English.
0 - 6 credits chosen from Group D – Courses offered in other departments.

MAJOR CONCENTRATION IN ITALIAN STUDIES (36 credits)
This program is designed to enable students with no previous knowledge of Italian to pursue a Major Concentration by allowing them to take some literature and culture courses in English translation while acquiring language competency in other courses (including some literature courses taught in the original). All students wishing to register for the Major Concentration in Italian Studies are strongly urged to meet regularly with a departmental adviser.

Complementary Courses (36 credits)
6 - 12 credits chosen from Group A – Basic Language Courses. Students with no knowledge of the Italian language must take 12 credits.
Students arriving with some knowledge of the language may take 6 credits (ITAL 210D1/ITAL 210D2 or ITAL 215D1/ITAL 215D2).
Students arriving with competency in the language may substitute courses from Groups B, C, and D for Basic Language Courses.
All students with some background must consult with the Department for proper placement.
18 - 30 credits chosen from courses at the 300-level or above as listed in Group B – Courses taught in Italian and Group C – Courses taught in English.
0 - 6 credits chosen from Group D – Courses offered in other departments.

MAJOR CONCENTRATION IN ITALIAN LANGUAGE AND LITERATURE (36 credits)

Complementary Courses (36 credits)
0 - 12 credits chosen from Group A – Basic Language Courses.
18 - 36 credits chosen from courses at the 300-level or above as listed in Group B – Courses taught in Italian.
Note: ITAL 300 may not be taken by students who have taken 132-306.
0 - 18 credits chosen from courses at the 300-level or above as listed in Group C – Courses taught in English.
0 - 6 credits chosen from Group D – Courses offered in other departments.

HONOURS PROGRAM IN ITALIAN STUDIES (54 credits)

Students with advanced standing in the language must substitute language courses with courses from groups B, C and D.

Required Courses (6 credits)
ITAL 341 (3) The Art of Essay Writing
ITAL 470 (3) Honours Thesis

Complementary Courses (48 credits)
48 credits, 9 of which must be at the 400 level or above.
0 - 12 credits from Group A – Basic Language Courses.
30 - 42 credits Group B – Courses taught in Italian.
0 - 9 credits combined from Group C – Courses taught in English and Group D – Courses offered in other departments.

JOINT HONOURS PROGRAM – ITALIAN STUDIES COMPONENT (36 credits)

Students with advanced standing in the language must substitute language courses with courses from groups B, C and D.

Required Courses (6 credits)
ITAL 341 (3) The Art of Essay Writing
ITAL 470 (3) Honours Thesis

Complementary Courses (30 credits)
30 credits, 6 of which must be at the 400 level or above:
0 - 12 credits from Group A – Basic Language Courses.
12 - 30 credits from Group B – Courses taught in Italian.
0 - 18 credits combined from Group C – Courses taught in English and Group D – Courses offered in other departments.

ITALIAN STUDIES COURSE GROUPS

Group A – Basic Language Courses:
ITAL 205D1 (3) Italian for Beginners
ITAL 205D2 (3) Italian for Beginners
ITAL 206 (6) Beginners’ Italian Intensive
ITAL 210D1 (3) Elementary Italian
ITAL 210D2 (3) Elementary Italian
ITAL 215D1 (3) Intermediate Italian
ITAL 215D2 (3) Intermediate Italian
ITAL 216 (6) Intermediate Italian Intensive

Group B – Courses taught in Italian:
ITAL 300 (3) Italian Literary Composition
ITAL 306 (6) Advanced Reading and Composition
ITAL 307 (3) Topics in Italian Studies
ITAL 308 (3) Business Italian
ITAL 311 (3) Twentieth Century Texts
ITAL 320 (3) Manzoni
ITAL 325 (3) Masterpieces of Italian Literature 1
ITAL 326 (3) Masterpieces of Italian Literature 2
ITAL 330 (3) Commedia dell’arte
ITAL 331 (3) Drama from Goldoni to Pirandello
ITAL 341 (3) The Art of Essay Writing
ITAL 356 (3) Medieval Courses on Love
ITAL 360 (3) Contemporary Italian Prose
ITAL 368 (3) Literature on the Renaissance
ITAL 370 (3) Italian Poetry and Music
ITAL 376 (3) Medieval Romance in Italy
ITAL 380 (3) Verga and Verismo
ITAL 383 (3) Women Writers
ITAL 410 (3) Modern Italian Literature
ITAL 411 (3) Pirandello
ITAL 415 (3) Poetry of the 20th Century
ITAL 420 (3) Leopardi and Italian Romanticism
ITAL 435 (3) Ariosto’s Orlando Furioso
ITAL 436 (3) Tasso’s Gerusalemme liberata
ITAL 461 (3) Dante: The Divine Comedy
ITAL 530 (3) 17th and 18th Century Culture
ITAL 542 (3) Italy’s Regional Literatures
ITAL 551 (3) Boccaccio and the Italian Novella
ITAL 562 (3) Petrarch and Petrarchism
ITAL 563 (3) Topics in 13th-16th Century Literature
ITAL 590 (3) Italian Literary Criticism

Group C – Courses taught in English:
ITAL 199 (3) FYS: Italy’s Literature in Context
ITAL 355 (3) Dante and the Middle Ages
ITAL 361 (3) Italian Prose after 1945
### 2.9 Linguistics

#### HONOURS PROGRAM IN LINGUISTICS (60 credits)

**Required Courses (27 credits)**
- LING 201 (3) Introduction to Linguistics
- LING 230 (3) Phonetics
- LING 331 (3) Phonology 1
- LING 370 (3) Introduction to Semantics and Pragmatics
- LING 371 (3) Syntax 1
- LING 440 (3) Morphology
- LING 480D  (3) Honours Thesis
- PHIL 210 (3) Introduction to Deductive Logic 1

**Complementary Courses (33 credits)**
- 21 credits in Linguistics:
  - 15 credits at the 400/500 level, 3 of which must be selected from:
    - LING 425 (3) Historical Linguistics
    - LING 450 (3) Linguistic Theory and Processing
    - LING 451 (3) Acquisition of Phonology
    - LING 455 (3) Second Language Syntax
    - LING 520 (3) Sociolinguistics 2
    - LING 521 (3) Dialectology
    - LING 525 (3) Topics in Historical Linguistics
    - LING 555 (3) Language Acquisition 2
    - LING 590 (3) Introduction to Neurolinguistics
  - 6 credits others, usually at the 200/300 level.
- 12 credits in related fields to be selected from the following list:
  - Computer Science
    - COMP 202 (3) Introduction to Computing 1
    - COMP 203 (3) Introduction to Computing 2
    - COMP 530 (3) Formal Languages
  - French Language and Literature
    - FREN 231 (3) Linguistique française
    - FREN 343 (3) Sociolinguistique du français
  - Any course in language (other than the student’s native language)

#### Mathematics
- MATH 240 (3) Discrete Structures and Computing
- MATH 328 (3) Computationally and Mathematical Linguistics

#### Philosophy
- Any course in logic or philosophy of science.
- PHIL 304 (3) Chomsky
- PHIL 306 (3) Philosophy of Mind
- PHIL 415 (3) Philosophy of Language
- PHIL 515 (3) Seminar: Philosophy of Language

#### Psychology
- PSYC 311 (3) Human Cognition and the Brain
- PSYC 316 (3) Psychology of Deafness
- PSYC 341 (3) The Psychology of Bilingualism
- PSYC 343 (3) Language Learning in Children
- PSYC 530 (3) Applied Topics in Deafness
- PSYC 532 (3) Cognitive Science
- PSYC 561 (3) Methods: Developmental Psycholinguistics

#### Statistics
- Any course in statistics (from any department).

A B average (program GPA 3.30) is required to maintain Honours standing in Linguistics and a minimum grade of B+ must be obtained in four of five of the following courses LING 230, LING 331, LING 370, LING 371, LING 440, as well as in the Honours Thesis, LING 480D/1/2. As per Faculty of Arts rules, a minimum CGPA of 3.00 must be maintained. The requirement for First Class Honours is a CGPA of 3.50 and a minimum grade of A- in the Honours Thesis. Inquiries may be addressed to the departmental office or to the adviser for undergraduate studies.

### JOINT HONOURS PROGRAM – LINGUISTICS COMPONENT

**Required Courses (24 credits)**
- LING 201 (3) Introduction to Linguistics
- LING 230 (3) Phonetics
- LING 331 (3) Phonology 1
- LING 370 (3) Introduction to Semantics and Pragmatics
- LING 371 (3) Syntax 1
- LING 440 (3) Morphology
- LING 481D  (3) Joint Honours Thesis
- LING 481D2 (1.5) Joint Honours Thesis
- PHIL 210 (3) Introduction to Deductive Logic 1

**Complementary Courses (12 credits)**
- 9 credits in Linguistics courses at the 400/500 level.
- 3 credits in Linguistics courses (normally at the 200/300 level).

A B average (program GPA 3.30) is required to maintain Joint Honours standing in Linguistics and a minimum grade of B+ must be obtained in four of five of the following courses LING 230, LING 331, LING 370, LING 371, LING 440, as well as in the Joint Honours Thesis, LING 481D1/LING 481D2. As per Faculty of Arts rules, a minimum CGPA of 3.00 must be maintained. The requirement for First Class Honours is a CGPA of 3.50 and a minimum grade of A- in the Joint Honours Thesis. Inquiries may be addressed to the departmental office or to the adviser for undergraduate studies.

### 2.10 Middle East Studies

#### JOINT HONOURS PROGRAM – MIDDLE EAST STUDIES COMPONENT (36 credits)

**Complementary Courses (36 credits)**
- Language:
  - 12 credits (2 levels) in one Middle East language (in the case of Arabic, the first two levels involve 15 credits. The extra 3 credits will be counted toward the remainder of the program.)

#### Middle East Studies:
- 24 credits (21 if Arabic has been chosen), distributed as follows:
History.
6 - 9 credits, a minimum of 6 credits from the following courses:
ISLA 410 (3) History of the Middle East 1798-1918
ISLA 411 (3) History of the Middle East 1918-1945
ISLA 510D1 (3) History: Islamic Civilization - Classical
ISLA 510D2 (3) History: Islamic Civilization - Mediaeval Era
ISLA 511D1 (3) History: Islamic Civilization - Mediaeval Era
ISLA 511D2 (3) History: Islamic Civilization - Mediaeval Era
Religion and Philosophy,
6 - 9 credits, a minimum of 6 credits from the following courses:
ISLA 505 (3) Islam: Origin and Early Developments
ISLA 506 (3) Islam: Later Developments
ISLA 531D1 (3) Survey Development of Islamic Thought
ISLA 531D2 (3) Survey Development of Islamic Thought

Social Science,
6 - 9 credits to be selected from:
POLI 340 (3) Developing Areas/Middle East
POLI 341 (3) Foreign Policy: The Middle East
POLI 347 (3) Arab-Israeli Conflict, Crisis, Peace
POLI 437 (3) Politics in Israel
or ANTH 340 (3) Middle Eastern Society and Culture
Independent Research/Honours Seminar,
3 credits selected from:
MEST 496 (3) Independent Reading and Research
MEST 495 (3) Middle East Studies: Research Seminar
Joint Honours students must maintain a program GPA of 3.30 in their Middle East Studies courses. According to Faculty regulations, Joint Honours students must maintain a minimum CGPA of 3.00.

2.11 Psychology

MINOR CONCENTRATION IN PSYCHOLOGY (18 credits)
(Expandable)
Students registered in a Bachelor of Arts Program in another department may pursue a Minor Concentration in Psychology. This Minor Concentration is expandable for students who may wish to transfer into a Major Concentration in Psychology at a later date.

Recommended background:
Students are advised to complete a course in Introductory Psychology at the collegial or freshman level. Students who have not previously completed CEGEP Psychology 350-101 or 350-102 or equivalent are required to complete PSYC 100 during the first year of study at McGill.

Complementary Courses (18 credits)
6 credits selected from:
PSYC 204 (3) Introduction to Psychological Statistics
PSYC 211 (3) Intro Behavioural Neuroscience
PSYC 212 (3) Perception
PSYC 213 (3) Cognition
PSYC 215 (3) Social Psychology
12 credits in Psychology at the 300 level or above.

MINOR CONCENTRATION IN BEHAVIOURAL SCIENCE
(18 credits) (Non-expandable) (Open only to students registered in the Major Concentration In Psychology)
Students who wish to go on to graduate training in Psychology, and those who may wish to apply for membership of the Ordre des Psychologues du Québec (once the additional graduate requirements of the Ordre have been completed), are advised to take the following supplementary Minor Concentration in Behavioural Science. Note that this counts as a second Minor Concentration, and is open only to students registered in the Major Concentration in Psychology. A first Minor Concentration must also be completed in a discipline other than Psychology.

Complementary Courses (18 credits)
3 credits in Psychology from List A
3 credits in Psychology from List B
3 credits in Psychology at the 400 or 500 level
9 credits at the 300 level or above in one of the following disciplines: Psychology (PSYC), Anthropology (ANTH), Linguistics (LING), or Sociology (SOCI)

MAJOR CONCENTRATION IN PSYCHOLOGY (36 credits)

Recommended Background:
Students planning to pursue a Major Concentration or Honours program in Psychology are advised to complete courses in Introductory Psychology and Human Biology at the collegial level.

Students who have not previously completed Psychology 350-101 or 350-102 in CEGEP will be required to register for PSYC 100 during their U1 year. Students who have not completed one Biology 101-301, 101-401, 101-811 or 101-921 in CEGEP will be required to complete BIOL 115 (or if they prefer BIOL 111 or BIOL 112) during their U1 year.

Students who have completed either Mathematics 201-307 or 201-337 or equivalent, or the combination of Quantitative Methods 360-300 with Mathematics 201-300, and who obtained a minimum grade of 75%, will be exempt from PSYC 204. These students will replace this requirement with three credits at the 300 level in one of the following disciplines: Psychology (PSYC), Anthropology (ANTH), Linguistics (LING) or Sociology (SOCI).

Required Courses (18 credits)
PSYC 204 (3) Introduction to Psychological Statistics
PSYC 211 (3) Intro Behavioural Neuroscience
PSYC 212 (3) Perception
PSYC 213 (3) Cognition
PSYC 215 (3) Social Psychology
PSYC 305 (3) Statistics for Experimental Design

Complementary Courses (18 credits)
3 credits in Psychology from List A
3 credits in Psychology from List B
12 credits in Psychology, at least 6 at the 400 or 500 level

Note: Students who wish to apply to the Honours Program in Psychology must complete the following courses in their U1 year to be eligible for admission: PSYC 204, PSYC 211, PSYC 212, PSYC 213, PSYC 215. Students who have been exempted from PSYC 204 are advised to complete PSYC 305 in U1. All students must complete a minimum of 27 graded credits in U1 to be eligible for admission to the Honours Program.

B.A. HONOURS PROGRAM IN PSYCHOLOGY (54 credits)
Students should note that awarding of the Honours degree will depend on both cumulative grade point average and a minimum grade of B on PSYC 380D1/PSYC 380D2, PSYC 481D1/PSYC 481D2, PSYC 482, PSYC 483. "First Class Honours" is awarded to students who obtain a minimum cumulative grade point average of 3.50 and a minimum CGPA of 3.50 in the four Honours courses of which 12 out of 18 credits received at least an A- grade. "Honours" is awarded to students with a minimum cumulative grade point average of 3.00 and a minimum program GPA of 3.00 on each of the four Honours courses. Moreover, the awarding of the Honours degree normally requires completion of two full years of study, U2 and U3, in the Psychology Department. Exceptionally good students may be admitted for the U3 year only on the basis of their marks and research experience. These students will not be required to take the U2 course PSYC 380D1/PSYC 380D2 from the list below. They will replace these 6 credits with 3 additional credits from List A and 3 from List B.

U1 Required Courses (15 credits)
PSYC 204 (3) Introduction to Psychological Statistics
PSYC 211 (3) Intro Behavioural Neuroscience
PSYC 212 (3) Perception
PSYC 213 (3) Cognition
PSYC 215 (3) Social Psychology

Note: PSYC 100 may be taken as a corequisite with these basic courses.
U1 or U2 Required Course (3 credits)
PSYC 305 (3) Statistics for Experimental Design

U2 Required Courses (6 credits)
PSYC 380D1 (3) Honours Research Project and Seminar
PSYC 380D2 (3) Honours Research Project and Seminar

U3 Required Courses (12 credits)
PSYC 481D1 (3) Honours Thesis Research
PSYC 481D2 (3) Honours Thesis Research
PSYC 482 (3) Advanced Honours Seminar 1
PSYC 483 (3) Advanced Honours Seminar 2

Complementary Courses (18 credits)
6 credits in Psychology from List A
6 credits in Psychology from List B
6 credits at the 300 level or above in one of the following disciplines: Psychology (PSYC), Anthropology (ANTH), Linguistics (LING), or Sociology (SOCI)

List A
(Behavioural Neuroscience, Cognition and Quantitative Methods)
PSYC 301 (3) Learning
PSYC 308 (3) Behavioural Neuroscience 1
PSYC 310 (3) Human Intelligence
PSYC 311 (3) Human Cognition and the Brain
PSYC 317 (3) Genes and Behaviour
PSYC 318 (3) Behavioural Neuroscience 2
PSYC 334 (3) Computer Simulation - Psychological Processes
PSYC 335 (3) Formal Models: Psychological Processes
PSYC 336 (3) Measurement of Psychological Processes
PSYC 340 (3) Psychology of Language
PSYC 341 (3) Psychology of Bilingualism
PSYC 342 (3) Hormones and Behaviour
PSYC 352 (3) Laboratory in Cognitive Psychology
PSYC 353 (3) Laboratory in Human Perception
PSYC 403 (3) Modern Psychology in Historical Perspective
PSYC 406 (3) Psychological Tests and Measurements
PSYC 410 (3) Special Topics in Neuropsychology
PSYC 413 (3) Cognitive Development
PSYC 427 (3) Sensomotor Behaviour
PSYC 451 (3) Human Factors Research and Techniques
PSYC 470 (3) Memory and Brain
PSYC 472 (3) Scientific Thinking and Reasoning
PSYC 503 (3) Computational Psychology
PSYC 505 (3) The Psychology of Pain
PSYC 510 (3) Statistical Analysis of Tests
PSYC 522 (3) Neurochemical Basis of Behaviour
PSYC 526 (3) Advances in Visual Perception
PSYC 529 (3) Music Cognition
PSYC 531 (3) Structural Equation Models
PSYC 532 (3) Cognitive Science
PSYC 536 (3) Correlational Techniques

List B (Social, Health and Developmental Psychology)
PSYC 304 (3) Child Development
PSYC 316 (3) Psychology of Deafness
PSYC 331 (3) Inter-Group Relations
PSYC 332 (3) Introduction to Personality
PSYC 333 (3) Personality and Social Psychology
PSYC 337 (3) Intro: Abnormal Psychology 1
PSYC 338 (3) Intro: Abnormal Psychology 2
PSYC 343 (3) Language Acquisition in Children
PSYC 351 (3) Research Methods in Social Psychology
PSYC 408 (3) Principles of Cognitive Behaviour Therapy
PSYC 412 (3) Deviations in Child Development
PSYC 414 (3) Social Development
PSYC 416 (3) Advanced Topics in Child Development
PSYC 429 (3) Health Psychology
PSYC 436 (3) Human Sexuality and its Problems
PSYC 471 (3) Human Motivation
PSYC 473 (3) Social Cognition and the Self
PSYC 474 (3) Interpersonal Relationships
PSYC 491D1 (3) Advanced Study: Behavioural Disorders
PSYC 491D2 (3) Advanced Study: Behavioural Disorders
PSYC 511 (3) Infant Competence
PSYC 530 (3) Applied Topics in Deafness
PSYC 533 (3) International Health Psychology
PSYC 534 (3) Community Psychology
PSYC 534 (3) Community Psychology
PSYC 535 (3) Advanced Topics in Social Psychology

Unclassified Courses
PSYC 450D1 (3) Research Project and Seminar
PSYC 450D2 (3) Research Project and Seminar
PSYC 492 (3) Seminar in Special Topics
PSYC 493 (3) Seminar in Special Topics
PSYC 495 (3) Psychology Research Project

2.12 Science for Arts Students

MINOR CONCENTRATION IN SCIENCE FOR ARTS STUDENTS (18 credits)

Required Courses (6 credits)
BIOL 210 (3) Perspectives of Science (in U1)
PSYC 472 (3) Scientific Thinking and Reasoning (in U3)

Complementary Courses (12 credits)
12 credits taken in one of the disciplinary areas given below. Where suggested courses have prerequisites at the 200 or 300 level associated with them, credit for the associated prerequisites may also be counted as part of the 12 credits.
Prerequisites at the 100 level cannot be counted towards the Minor Concentration.

With the prior written approval of the Program Director, an appropriate alternative set of courses may be substituted.

DISCIPLINARY AREAS

Atmospheric and Oceanic Sciences
Students should note that MATH 133 (or its CEGEP equivalent) is not essential as a prerequisite for these courses.
ATOC 210 (3) Introduction to Atmospheric Science
ATOC 214 (3) Intro to the Physics of the Atmosphere
ATOC 215 (3) Weather Systems and Climate
ATOC 220 (3) Introduction to Oceanic Sciences

Biochemistry
Prerequisites which cannot be counted towards the Minor Concentration: BIOL 111 and BIOL 112 plus CHEM 120 (or CHEM 121) or their CEGEP equivalents.
12 credits taken from the following courses and their associated 200 or 300-level prerequisites:
ANAT 262 (3) Introductory Molecular & Cell Biology
BIOC 212 (3) Molecular Mechanisms of Cell Function
(Prerequisite: BIOL 200)
BIOL 200 (3) Molecular Biology
CHEM 212 (4) Organic Chemistry 1
Students who have completed CHEM 212 and CHEM 222 or their CEGEP equivalents may take one or both of the following:
BIOC 311 (3) Metabolic Biochemistry (Prerequisite: BIOL 200, BIOL 201 or BIOC 212, CHEM 222)
BIOC 312 (3) Biochemistry of Macromolecules
(Prerequisite: BIOC 311, BIOL 200, BIOL 201 or BIOC 212)

Biology
Students interested in Biology can choose between two streams.
One is oriented towards cell and molecular biology and leads to upper level courses in developmental biology, human genetics, molecular biology, or allied fields. The other is oriented more to organismal biology and leads to upper level courses in biodiversity, ecology, sociobiology, neurobiology, behaviour, or conservation biology. See the departmental Undergraduate Secretary to
arrange a session for counsel on choice of courses above the 200-level.

Prerequisites which cannot be counted towards the Minor Concentration: BIOL 111 and BIOL 112 plus CHEM 120 (or CHEM 121) or their CEGEP equivalents.

**Cell and Molecular Stream:**
Note: CHEM 212 or its CEGEP equivalent is prerequisite to this stream.
- BIOL 200 (3) Molecular Biology
- BIOL 201 (3) Cell Biology & Metabolism (Prerequisite: BIOL 200)
- BIOL 202 (3) Basic Genetics (Prerequisite: BIOL 200)
- BIOL 300 (3) Molecular Biology of the Gene (Prerequisite: BIOL 200, BIOL 201)
- BIOL 303 (3) Developmental Biology (Prerequisite: BIOL 200, BIOL 201)

**Organismal Stream:**
Students choosing this disciplinary area must obtain the permission of the instructors in BIOL 205 and additionally sit in on the six lectures in neurobiology given in BIOL 201, which are coordinated with those in BIOL 205.
- BIOL 205 (3) Biology of Organisms (Prerequisite: BIOL 200, BIOL 208)
- BIOL 304 (3) Evolution (Prerequisite: BIOL 205 or BIOL 208 or ENVR 202)
- BIOL 305 (3) Diversity of Life (Prerequisite: BIOL 205 or BIOL 208 or ENVR 202)
- BIOL 306 (3) Neurobiology and Behaviour (Prerequisite: BIOL 201, BIOL 205)
- BIOL 307 (3) Behavioural Ecology/Sociobiology (Prerequisite: BIOL 205, BIOL 208 or permission)
- BIOL 465 (3) Conservation Biology

**Chemistry**
Prerequisites which cannot be counted towards the Minor Concentration: CHEM 120 (or CHEM 121) or their CEGEP equivalents.

The Department also strongly encourages students to take one or more courses involving a laboratory because the science of chemistry is rooted in laboratory experience.

- CHEM 150 (3) World of Chemistry: Food
- CHEM 160 (3) World of Chemistry: Technology
- CHEM 170 (3) World of Chemistry: Drugs
- CHEM 180 (3) World of Chemistry: Environment
- CHEM 201 (3) Modern Inorganic Chemistry 1
- CHEM 203 (3) Survey of Physical Chemistry
- CHEM 204 (3) Physical Chemistry/Biological Sciences 1
- CHEM 212 (4) Organic Chemistry 1
- CHEM 222 (4) Organic Chemistry 2 (Prerequisite: CHEM 212)
- CHEM 257D1 (2) Analytical Chemistry
- CHEM 257D2 (2) Analytical Chemistry
- CHEM 301 (3) Modern Inorganic Chemistry 2
- CHEM 302 (3) Organic Chemistry 3 (Prerequisite: CHEM 212, CHEM 222)
- CHEM 350 (3) Earth, Air, Fire, Water (Prerequisite: CHEM 212, CHEM 204)

**Computer Science**
[Students in any Minor or Major Concentration or Honours Program in Computer Science cannot choose this disciplinary area.]

-普 requisites which cannot be counted towards the Minor Concentration: MATH 139 or MATH 140, MATH 141, and MATH 133 and COMP 102 or their CEGEP equivalents.

A selection of courses should be taken from:
- COMP 202 (3) Introduction to Computing 1
- COMP 203 (3) Introduction to Computer 2 (Prerequisite: COMP 202)
- COMP 250 (3) Introduction to Computer Science (Major and Honours)
- COMP 251 (3) Data Structures and Algorithms (Prerequisite: COMP 250 or COMP 203)

plus some of the following courses:
- COMP 273 (3) Introduction to Computer Systems (Prerequisite: COMP 202)
- COMP 302 (3) Programming Languages and Paradigms (Prerequisite: COMP 203 or COMP 250)

**Earth and Planetary Sciences**
A combination of EPSC 210, EPSC 212, and one or more of EPSC 200, EPSC 201, and EPSC 243 provides a grounding in these inter-related disciplines in preparation for more specialized courses which follow:
- EPSC 200 (3) The Terrestrial Planets
- EPSC 201 (3) Understanding Planet Earth
- EPSC 203 (3) Structural Geology 1
- EPSC 205 or (3) Astrobiology
- ANAT 205
- EPSC 210 (3) Introduction to Mineralogy
- EPSC 212 (3) Introduction to Petrology (Prerequisite: EPSC 210)
- EPSC 220 (3) Principles of Geochemistry (Prerequisite: EPSC 201, EPSC 210)
- EPSC 231C (3) Field School 1 (Prerequisite: EPSC 222)
- EPSC 233 (3) Earth and Life History
- EPSC 243 (3) Environmental Geology
- EPSC 320 (3) Elementary Earth Physics (Prerequisite: EPSC 222)
- EPSC 334 (3) Invertebrate Paleontology and Evolution
- EPSC 425 (3) Sediments to Sequences (Prerequisite: EPSC 210, EPSC 212)

**Geography**
[Students in any Minor or Major Concentration or Honours Program in Geography cannot choose this disciplinary area.]

Geography advisers recommend including some preparation in chemistry, statistics and calculus for study in this area even if formal prerequisites are not in place. A selection of courses should be taken from:
- GEOG 203 (3) Environmental Systems
- GEOG 205 (3) Global Change: Past, Present and Future
- GEOG 272 (3) Landforms & Environmental Systems
- GEOG 305 (3) Geography of Soils (Prerequisite: GEOG 203)
- GEOG 321 (3) Climatic Environments (Prerequisite: GEOG 203 or ENVR 210 or permission)
- GEOG 322 (3) Environmental Hydrology (Prerequisite: GEOG 203 or equivalent)
- GEOG 350 (3) Ecological Biogeography (Prerequisite: GEOG 302 or BIOL 205)
- GEOG 372 (3) Ecological Biogeography (Prerequisite: GEOG 302 or BIOL 205)

**Mathematics and Statistics**
[Students in any Minor or Major Concentration or Honours Program in Mathematics and Statistics cannot choose this disciplinary area.]

Suggested courses:
- MATH 133 (3) Vectors, Matrices & Geometry
- MATH 203 (3) Principles of Statistics 1
- MATH 204 (3) Principles of Statistics 2 (Prerequisite: MATH 203 or equivalent)
MATH 222 (3) Calculus 3
MATH 338 (3) History and Philosophy of Mathematics

Microbiology and Immunology
Prerequisites which cannot be counted towards the Minor Concentration: BIOL 111 and BIOL 112, CHEM 120 (CHEM 121) or their CEGEP equivalents.
Students can complete the 12 credits from the following courses and their associated prerequisites:
Note: CHEM 212 or its CEGEP equivalent is prerequisite, or corequisite, to these courses.
MIMM 211 (3) Biology of Microorganisms
MIMM 314 (3) Immunology (Prerequisite: BIOL 200 and BIOL 201 or BIOL 212)
MIMM 323 (3) Microbial Physiology (Prerequisite: MIMM 211)
MIMM 324 (3) Fundamental Virology (Prerequisite: MIMM 211, BIOL 200, BIOL 201 or BIOL 212)

Pathology
Prerequisites which cannot be counted towards the Minor Concentration: BIOL 111 and BIOL 112 plus CHEM 120 (or CHEM 121) or their CEGEP equivalents.
This course, together with its associate prerequisites, is well suited to students with an interest in medicine.
Note: CHEM 212 or its CEGEP equivalent is also prerequisite, or corequisite, to this course.
PATH 300 (3) Human Disease (Prerequisites: BIOL 200, BIOL 201 or BIOL 212, PHGY 209. Pre- or corequisite PHGY 210)

Physics
Prerequisites which cannot be counted towards the Minor Concentration: Most of the courses listed require at least CEGEP-level prerequisites or their equivalent in both Mathematics and Physics.
Exceptions are: PHYS 200, PHYS 204, PHYS 208, PHYS 209, MATH 223. A possible 12-credit combination without such prerequisites is PHYS 200, PHYS 204, PHYS 224 and PHYS 225.
Honours courses may be substituted for their Major equivalents only with the permission of the Department.
PHYS 200 (3) Space, Time and Matter
PHYS 204 (3) Planets, Stars and Galaxies
or PHYS 214 (3) Astrophysics
PHYS 208 (1) Topics in Physics
PHYS 224 (3) Physics and Psychophysics of Music
PHYS 225 (3) Musical Acoustics (Prerequisite: PHYS 224)
PHYS 230 (3) Dynamics of Simple Systems
PHYS 232 (2) Heat and Waves (Prerequisite: PHYS 230)
PHYS 241 (2) Signal Processing
PHYS 242 (3) Electricity and Magnetism (Prerequisite: MATH 222)
PHYS 257 (3) Experimental Methods 1 (Prerequisite: PHYS 230 or PHYS 250)
PHYS 258 (3) Experimental Methods 2 (Prerequisite: PHYS 257)

Physiology
Prerequisites which cannot be counted towards the Minor Concentration: BIOL 111 and BIOL 112, CHEM 110 (or CHEM 111), PHYS 101 (or PHYS 131) and PHYS 102 (or PHYS 142), CHEM 120 (or CHEM 121) or their CEGEP equivalents.
Students should take either:
PHGY 201 (3) Human Physiology: Control Systems (Prerequisite: CHEM 212)
and PHGY 202 (3) Human Physiology: Body Functions (Prerequisite: CHEM 212)
or PHGY 209 (3) Mammalian Physiology 1 (Prerequisite: CHEM 212, BIOL 200, BIOL 201 or BIOL 212)
and PHGY 210 (3) Mammalian Physiology 2 (Prerequisite: CHEM 212, BIOL 200 or BIOL 201 or BIOL 212)
and one or more of these higher level courses:
PHGY 311 (3) Intermediate Physiology 1 (Prerequisite: PHGY 209, PHGY 210 or equivalent or permission.)
PHGY 312 (3) Intermediate Physiology 2 (Prerequisite: PHGY 209, PHGY 210 or equivalent, PHGY 311 or permission.)
PHGY 313 (3) Intermediate Physiology 3 (Prerequisite: PHGY 209, PHGY 210 or equivalent, PHGY 311 or permission.)

Psychology
[Students in any Minor or Major Concentration or Honours Program in Psychology cannot choose this disciplinary area.]
Prerequisites which cannot be counted towards the Minor Concentration: PSYC 100 plus BIOL 111 or BIOL 112 or BIOL 115, (or their CEGEP equivalents).
Students in the Minor Concentration take two of the following courses:
Note: PSYC 204 is prerequisite to this area:
PSYC 211 (3) Introductory Behavioral Neuroscience
PSYC 212 (3) Perception
PSYC 213 (3) Cognition
PSYC 215 (3) Social Psychology
plus one or more Psychology courses at the 300-level or higher (excluding PSYC 305). Students are recommended to satisfy the upper level course requirement by taking 6 credits from one of the areas of specialization specified in the Psychology section.

2.13 Women’s Studies

HONOURS PROGRAM IN WOMEN’S STUDIES (57 credits)

Required Courses (12 credits)
WMST 303 (3) Feminist Theory and Research
WMST 495D1 (1.5) Honours/Joint Honours Colloquium
WMST 495D2 (1.5) Honours/Joint Honours Colloquium
WMST 496D1 (3) Honours Thesis
WMST 496D2 (3) Honours Thesis

Complementary Courses (45 credits)
45 credits from the three Women’s Studies Complementary Course Groups: Historical and Non-European; Literature and the Arts; Science and Social Studies.
At least 9 of the 45 credits must be at the 400 or 500 level; no more than 18 credits can be at the 200 level.
At least 15 credits to be chosen from one group,
at least 15 credits to be chosen from a second group,
at least 6 credits to be chosen from the remaining group.

JOINT HONOURS PROGRAM IN WOMEN’S STUDIES (36 credits)

Required Courses (9 credits)
WMST 303 (3) Feminist Theory and Research
WMST 495D1 (1.5) Honours/Joint Honours Colloquium
WMST 495D2 (1.5) Honours/Joint Honours Colloquium
WMST 497D1 (1.5) Joint Honours Thesis
WMST 497D2 (1.5) Joint Honours Thesis

Complementary Courses (27 credits)
27 credits from the three Women’s Studies Complementary Course Groups: Historical and Non-European; Literature and the Arts; Science and Social Studies.
At least 6 of the 27 credits must be at the 400 or 500 level; no more than 9 credits can be at the 200 level.
12 credits to be chosen from one group,
12 credits to be chosen from a second group,
3 credits to be chosen from the remaining group.
3 Education

The Calendar Supplement will be updated later in September to include changes to the following programs:
B.Ed. K/Elementary
B.Ed. Teaching English as a Second Language
B.Ed. Major in Physical Education
B.Ed. Faculty Program in Kinesiology

as well as an outline of the B.Ed. Francais langue second (Joint Program with Université de Montréal) which will begin in September 2003 at McGill, and in January 2003 at the Université de Montréal.

4 Engineering

4.1 Architecture

Curriculum for the B.Sc.(Arch.) Degree

<table>
<thead>
<tr>
<th>REQUIRED COURSES</th>
<th>COURSE CREDIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Departmental Subjects</td>
<td></td>
</tr>
<tr>
<td>CIV 205 Statics</td>
<td>3</td>
</tr>
<tr>
<td>CIV 283 Strength of Materials</td>
<td>4</td>
</tr>
<tr>
<td>CIV 385 Structural Steel and Timber Design</td>
<td>3</td>
</tr>
<tr>
<td>CIV 388 Foundations &amp; Concrete Design</td>
<td>3</td>
</tr>
<tr>
<td>CIV 492 Structures</td>
<td>2</td>
</tr>
<tr>
<td>FACC 220 Law for Architects and Engineers</td>
<td>3</td>
</tr>
<tr>
<td>MIME 310 Engineering Economy</td>
<td>21</td>
</tr>
</tbody>
</table>

* Candidates intending not to proceed to the M.Arch.J degree may substitute other courses of equal total weight for any of these.

Architectural Subjects

| ARCH 201 Communication, Behaviour & Architecture | 6 |
| ARCH 202 Arch. Graphics and Design Elements | 6 |
| ARCH 217 Freehand Drawing 1 | 1 |
| ARCH 218 Freehand Drawing 2 | 1 |
| ARCH 240 Organization of Materials in Building | 3 |
| ARCH 250 Architectural History 1 | 3 |
| ARCH 251 Architectural History 2 | 3 |
| ARCH 303 Design and Construction 1 | 6 |
| ARCH 304 Design and Construction 2 | 6 |
| ARCH 321 Freehand Drawing 3 | 1 |
| ARCH 322 Freehand Drawing 4 | 1 |
| ARCH 324 Sketching School 1 | 1 |
| ARCH 375 Landscape | 2 |
| ARCH 405 Design and Construction 3 | 6 |
| ARCH 406 Design and Construction 4 | 6 |
| ARCH 447 Electrical Services | 2 |
| ARCH 451 Building Regulations & Safety | 56 |

*COMPLEMENTARY COURSES*

Students must complete 12 credits of architectural complementsaries which must include at least one course from each of the areas of concentration listed below in order to qualify for the B.Sc.(Arch.) degree.

A. History B. Theory C. Environment D. Technics

| ARCH 372 | ARCH 352 | ARCH 350 | ARCH 318 |
| ARCH 379 | ARCH 363 | ARCH 378 | ARCH 319 |
| ARCH 388 | ARCH 383 | ARCH 379 | ARCH 364 |
| ARCH 522 | ARCH 524 | ARCH 520 | ARCH 377 |
| ARCH 523 | ARCH 525 | ARCH 521 | ARCH 461 |
| ARCH 528 | ARCH 529 | ARCH 527 | ARCH 471 |
| ARCH 531 | OCC 442 | OCC 442 | ARCH 526 |

4.2 Electrical and Computer Engineering

Curriculum for the B.Eng. Degree In Electrical Engineering (Regular)

<table>
<thead>
<tr>
<th>REQUIRED COURSES</th>
<th>COURSE CREDIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Departmental Courses</td>
<td></td>
</tr>
<tr>
<td>CIVE 281 Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>or PHYS 251 Mechanics (3)</td>
<td></td>
</tr>
<tr>
<td>COMP 202 Intro. to Computing 1</td>
<td>3</td>
</tr>
<tr>
<td>EDEC 206 Communication in Engineering</td>
<td>3</td>
</tr>
<tr>
<td>MATH 260 Intermediate Calculus</td>
<td>3</td>
</tr>
<tr>
<td>MATH 261 Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 325 Ordinary Differential Eqns (3)</td>
<td></td>
</tr>
<tr>
<td>MATH 265 Advanced Calculus</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 248 Advanced Calculus (3)</td>
<td></td>
</tr>
<tr>
<td>MATH 270 Applied Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>or MATH 247 Linear Algebra (3)</td>
<td></td>
</tr>
<tr>
<td>MATH 381 Complex Variables &amp; Transforms</td>
<td>3</td>
</tr>
<tr>
<td>MIME 221 Engineering Professional Practice</td>
<td>1</td>
</tr>
<tr>
<td>MIME 310 Engineering Economy</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 271 Quantum Physics</td>
<td>3</td>
</tr>
</tbody>
</table>

* CGPA of 3.30 is required to register for MATH 247 and MATH 248.

Departmental Courses

| ECSE 200 Fundamentals of Electrical Engineering | 3 |
| ECSE 210 Circuit Analysis | 3 |
| ECSE 221 Introduction to Computer Engineering | 3 |
| ECSE 291 Electrical Measurements Lab | 2 |
ECSE 303 Signals & Systems 1  3
ECSE 304 Signals & Systems 2  3
ECSE 305 Probability & Random Sig. 1  3
ECSE 322 Computer Engineering  3
ECSE 323 Digital System Design  5
ECSE 330 Electronic Circuits 1  5
ECSE 334 Electronic Circuits 2  5
ECSE 351 Electromagnetic Fields  3
ECSE 352 EM Waves and Optics  3
ECSE 361 Power Engineering  3
ECSE 494 Design Project  148

**COMPLEMENTARY COURSES**  

**Technical Complementaries**  

Six courses (18 credits) from the list of 400-level courses in Electrical Engineering that must include 9 credits (3 courses) from one of the areas of concentration listed below:

**Computer Systems Technology**
- ECSE 424 Human Computer Interaction
- ECSE 425 Computer Organization and Architecture
- ECSE 427 Operating Systems

**Control & Automation**
- ECSE 404 Control Systems
- ECSE 412 Discrete Time Signal Processing
- ECSE 426 Microprocessor Systems

**Integrated Circuits & Electronics**
- ECSE 425 Computer Organization and Architecture
- ECSE 431 Electronic Design
- ECSE 432 Physical Basis: Transistor Devices
- ECSE 435 Mixed-Signal Test Techniques

**Phototronics**
- ECSE 423 Optical Communications 1
- ECSE 430 Optical Communications 2
- ECSE 432 Physical Basis: Transistor Devices

**Power Engineering**
- ECSE 404 Control Systems
- ECSE 460 Appareillage électrique (Electrical Power Equipment)
- ECSE 462 Electromechanical Energy Conversion
- ECSE 464 Power System Analysis 1
- ECSE 465 Power Electronic Systems
- ECSE 468 Electricité industrielle (Industrial Power Systems)

**Telecommunications**
- ECSE 411 Communications Systems 1
- ECSE 414 Introduction to Telecommunication Networks

and any one of the following:
- ECSE 412 Discrete Time Signal Processing
- ECSE 413 Communications Systems 2
- ECSE 423 Optical Communications 1
- ECSE 451 EM Transmission and Radiation

**Laboratory Complementaries**  

Two 400-level laboratory courses in Electrical Engineering  4

**General Complementaries**  

Two courses (6 credits) in Social Sciences, Administrative Studies or Humanities, selected from an approved list (category ii - section 3.4 of the Faculty of Engineering entry in the Undergraduate Programs Calendar) and one course (3 credits) on the impact of technology (category i - section 3.4.) in consultation with an academic advisor. At least one 3-credit course must be from category A (Humanities and Social Sciences) in section 3.4.  9

**TOTAL CREDITS**  

110

*Enhanced ITT Concentration in Telecommunications*

The International Institute of Telecommunications (ITT) was recently established in Montreal as a center for telecommunication education. It is funded by government and industry, and provides state-of-the-art laboratory facilities and a point of contact between local telecommunications industries and universities.

This program is open to students in the regular Electrical Engineering program only.

The benefits of the Concentration are:
- a guaranteed project lab (ECSE 494) in telecommunications, at ITT or with an IT company; and
- permission to take ECSE 496 at ITT.

To complete the Concentration, students must take six courses as Technical Complementaries:
- ECSE 411 Communications Systems 1
- ECSE 414 Introduction to Telecommunication Networks
- ECSE 496 Telecom. Systems and Services

and any three courses selected from the following list:
- ECSE 412 Discrete Time Signal Processing
- ECSE 413 Communications Systems 2
- ECSE 423 Optical Communications 1
- ECSE 451 EM Transmission and Radiation

In addition, students must take ECSE 491 (Communications Systems Lab) and complete ECSE 494 (Design Project) in telecommunications, at ITT or with an IT company.

There may be an enrolment limitation in this concentration in any given semester.

**Curriculum for the Bachelor of Software Engineering (B.S.E.)**

<table>
<thead>
<tr>
<th>REQUIRED COURSES</th>
<th>CREDIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMP 202: Intro to Computing</td>
<td>3</td>
</tr>
<tr>
<td>COMP 206: Intro Software Systems</td>
<td>3</td>
</tr>
<tr>
<td>COMP 250: Intro to Computer Science</td>
<td>3</td>
</tr>
<tr>
<td>COMP 251: Data Structures and Algorithms</td>
<td>3</td>
</tr>
<tr>
<td>COMP 302: Programming Languages &amp; Paradigms</td>
<td>3</td>
</tr>
<tr>
<td>COMP 330: Theoretical Aspects of Computer Science</td>
<td>3</td>
</tr>
<tr>
<td>COMP 360: Algorithm Design Techniques</td>
<td>3</td>
</tr>
<tr>
<td>COMP 361: Systems Programming Project</td>
<td>3</td>
</tr>
<tr>
<td>COMP 420: Files and Databases</td>
<td>3</td>
</tr>
<tr>
<td>ECSE 221: Introduction to Computer Engineering</td>
<td>3</td>
</tr>
<tr>
<td>ECSE 321: Intro to Software Engineering</td>
<td>3</td>
</tr>
<tr>
<td>ECSE 322: Computer Engineering</td>
<td>3</td>
</tr>
<tr>
<td>ECSE 427: Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>ECSE 428: Software Engineering Practice</td>
<td>3</td>
</tr>
<tr>
<td>ECSE 429: Software Validation</td>
<td>3</td>
</tr>
<tr>
<td>ECSE 495: Software Eng. Design Project</td>
<td>3</td>
</tr>
<tr>
<td>MATH 260: Intermediate Calculus</td>
<td>3</td>
</tr>
<tr>
<td>MATH 261: Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>MATH 265: Advanced Calculus</td>
<td>3</td>
</tr>
<tr>
<td>MATH 270: Applied Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 363: Discrete Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 381: Complex Variables &amp; Transforms</td>
<td>3</td>
</tr>
</tbody>
</table>

**Engineering Breadth Required Courses**

- **ECSE 200**: Fundamentals of Electrical Engineering  3
- **ECSE 210**: Circuit Analysis  3
- **ECSE 291**: Electrical Measurements Lab  2
- **ECSE 303**: Signals and Systems 1  3
- **ECSE 305**: Probability and Random Sig. 1  3
- **ECSE 330**: Electronic Circuits 1  3
- **EDEC 206**: Communication in Engineering  3
- **MIME 310**: Engineering Economy  3
- **MIME 221**: Engineering Professional Practice  1

**Technical Complementaries**  

11 - 12

Students must take 11-12 credits of technical complementsaries from the following list, of which at least 6 credits must be taken from list A and the remainder from list B.

**Group A Technical Complementaries**
- **COMP 350**: Numerical Computing  3
- **COMP 409**: Concurrent Programming  3
- **COMP 424**: Topics in Artificial Intelligence  1
- **COMP 433**: Personal Software Engineering  3
- **COMP 524**: Theoretical Found. of Prog. Lang.  3
- **COMP 575**: Fundamentals of Distributed Algorithms  3
Group B Technical Complementaries
ECSE 304 Signals and Systems 2
ECSE 323 Digital Systems Design
ECSE 404 Control Systems
ECSE 411 Communications Systems 1
ECSE 412 Discrete Time Signal Processing
ECSE 413 Communications Systems 2
ECSE 414 Introduction to Telecommunication Networks
ECSE 421 Embedded Systems
ECSE 422 Fault Tolerant Computing
ECSE 420 Parallel Computing
ECSE 424 Human-Computer Interaction
ECSE 425 Computer Organization and Architecture
ECSE 426 Microprocessor Systems
or COMP 573 Microcomputers
ECSE 504 Computer Control
ECSE 522 Asynchronous Circuits and Systems
ECSE 526 Artificial Intelligence
ECSE 529 Image Processing & Communications
ECSE 530 Logic Synthesis
ECSE 531 Real-Time Systems
ECSE 532 Computer Graphics
or COMP 557 Fundamentals of Computer Graphics
COMP 410 Mobile Computing
COMP 412 Software for e-commerce
COMP 505 High-Performance Computer Architecture
COMP 525 Compiler Design
COMP 535 Computer Networks
COMP 566 Computer Methods in Operations Research

General Complementaries
9
Two courses (6 credits) in Social Sciences, Administrative Studies or Humanities, selected from an approved list (category ii - section 3.4 of the Faculty of Engineering entry in the Undergraduate Programs Calendar) and one course (3 credits) on the impact of technology (category i - section 3.4) in consultation with an academic advisor. At least one 3-credit course must be from category A (Humanities and Social Sciences) in section 3.4.

TOTAL CREDITS 110/111

4.3 Mechanical Engineering
Curriculum for the B.Eng. Degree in Mechanical Engineering (Regular)
REQUiRED COURSES

Non-Departmental Subjects
CIVE 207 Solid Mechanics 4
COMP 208 Computers in Engineering 3
ECSE 461 Electric Machinery 3
EDEC 206 Communication in Engineering 3
MATH 260 Intermediate Calculus 3
MATH 261 Differential Equations 3
MATH 263 Advanced Calculus 3
MATH 266 Linear Algebra and BVP 4
MIME 221 Engineering Professional Practice 1
MIME 260 Materials Science and Engineering 3
MIME 310 Engineering Economy 3 33

Departmental Courses
MECH 201 Introduction to Mechanical Engineering 2
MECH 210 Mechanics 1 2
MECH 220 Mechanics 2 4
MECH 240 Thermodynamics 1 3
MECH 260 Machine Tool Laboratory 2
MECH 262 Statistics and Measurement Laboratory 3
MECH 291 Graphics 3
MECH 292 Design 1 3
MECH 314 Dynamics of Mechanisms 3
MECH 315 Mechanics 3 4

MECH 321 Mechanics of Deformable Solids 3
MECH 331 Fluid Mechanics 1 3
MECH 341 Thermodynamics 2 3
MECH 346 Heat Transfer 3
MECH 362 Mechanical Laboratory 2
MECH 383 Applied Electronics and Instrumentation 3
MECH 393 Design 2 3
MECH 409 Numerical Methods in Mechanical Engineering 3
MECH 412 Dynamics of Systems 3
MECH 430 Fluid Mechanics 2 3
MECH 483D01 Mechanical Engineering Project 3
MECH 483D02 Mechanical Engineering Project 2 64

COMPLEMENTARY COURSES 15
2 courses (6 credits) at the 300-level or higher to be selected from Mechanical Engineering. For students who entered in September 2000 or later, one of these two courses must be chosen from the following list:
MECH 343 Energy Conversion
MECH 413 Control Systems
MECH 432 Aircraft Structures
MECH 471 Industrial Engineering
MECH 472 Case Studies in Project Mgmt
MECH 495 Design 3
MECH 496 Design 4
MECH 497 Value Engineering
MECH 524 Computer Integrated Manufacturing
MECH 556 Manufacturing and the Environment
MECH 528 Product Design
MECH 532 Aircraft Performance, Stability and Control
MECH 541 Kinematic Synthesis
MECH 543 Design with Composite Materials
MECH 554 Microprocessors for Mechanical Systems
MECH 557 Mechatronic Design
MECH 565 Fluid Flow & Heat Transfer Equipment
MECH 572 Introduction to Robotics
MECH 573 Mechanics of Robotic Systems
MECH 577 Optimum Design

1 course (3 credits) at the 300-level or higher from the Faculty of Engineering or an approved course in the Faculty of Science, including Mathematics.
2 courses (6 credits), 1 course from the Impact of Technology on Society and 1 course from Humanities and Social Sciences selected from an approved list (see section 3.4 of the Faculty of Engineering entry in the Undergraduate Programs Calendar).

TOTAL CREDITS 112
If advanced credit is given for MATH 260 Intermediate Calculus (see section 2.4 of the Faculty of Engineering entry in the Undergraduate Programs Calendar), the total number of credits is reduced by three.

Curriculum for the B.Eng. Degree in Mechanical Engineering (Honours)
REQUiRED COURSES

Non-Departmental Subjects
CIVE 207 Solid Mechanics 4
EDEC 206 Communication in Engineering 3
COMP 208 Computers in Engineering 3
MATH 260 Intermediate Calculus 3
MATH 261 Differential Equations 3
MATH 263 Advanced Calculus 3
MATH 266 Linear Algebra and BVP 4
MIME 221 Engineering Professional Practice 1
MIME 310 Engineering Economy 3 27

Departmental Courses
MECH 201 Introduction to Mechanical Engineering 2
MECH 210 Mechanics 1 2
MECH 220 Mechanics 2 4

McGill University, Calendar Supplement – Undergraduate Programs 2002-2003 (September 3, 2002) 21
MECH 240 Thermodynamics 1 3
MECH 260 Machine Tool Laboratory 2
MECH 262 Statistics and Measurement Laboratory 3
MECH 291 Graphics 3
MECH 292 Design 1 3
MECH 321 Mechanics of Deformable Solids 3
MECH 331 Fluid Mechanics 1 3
MECH 341 Thermodynamics 2 3
MECH 346 Heat Transfer 3
MECH 362 Mechanical Laboratory 2
MECH 383 Applied Electronics and Instrumentation 3
MECH 403D1 Honours Thesis 1 3
MECH 403D2 Honours Thesis 1 3
MECH 404 Honours Thesis 2 3
MECH 409 Numerical Methods in Mechanical Engineering 3
MECH 419 Advanced Mechanics of Systems 3
MECH 430 Fluid Mechanics 2 3
MECH 452 Mathematical Methods in Engineering 3
MECH 494 Honours Design Project 63

COMPLEMENTARY COURSES
2 of the following three courses (6 credits):
MECH 545 Advanced Stress Analysis
MECH 562 Advanced Fluid Mechanics
MECH 578 Advanced Thermodynamics
2 courses (6 credits) at the 300 level or higher to be selected from
Mechanical Engineering. For students who entered in
September 2000 or later, one of these two courses must be
chosen from the following list:
MECH 343 Energy Conversion
MECH 413 Control Systems
MECH 432 Aircraft Structures
MECH 471 Industrial Engineering
MECH 472 Case Studies in Project Mgmt
MECH 495 Design 3
MECH 496 Design 4
MECH 497 Value Engineering
MECH 524 Computer Integrated Manufacturing
MECH 526 Manufacturing and the Environment
MECH 528 Product Design
MECH 532 Aircraft Performance, Stability and Control
MECH 541 Kinematic Synthesis
MECH 543 Design with Composite Materials
MECH 554 Microprocessors for Mechanical Systems
MECH 557 Mechatronic Design
MECH 565 Fluid Flow & Heat Transfer Equipment
MECH 572 Introduction to Robotics
MECH 573 Mechanics of Robotic Systems
MECH 577 Optimisation Design

1 course (3 credits) at the 300 level or higher to be included in
the Faculty of Engineering or an approved course in the Faculty
of Science, including Mathematics.
2 courses (6 credits), 1 course from the Impact of
Technology on Society and 1 course from Humanities and
Social Sciences selected from an approved list (see section
3.4 of the Faculty of Engineering entry in the Undergraduate
Programs Calendar).

TOTAL CREDITS

4.4 Software Engineering Minor

Required Courses (9 credits)
ECSE 221 (3) Introduction to Computer Engineering
ECSE 321 (3) Introduction to Software Engineering
ECSE 428 (3) Software Engineering Practice

Complementary Courses (15 credits)
one course (3 credits), either:
COMP 203 (3) Introduction to Computing 2
or COMP 250 (3) Introduction to Computer Science

At least one course (3 credits) must be selected from the following
list of engineering courses:
CHEE 458 (3) Computer Applications
CHEE 571 (3) Small Computer Applications in Chemical Eng.
CIVE 460 (3) Matrix Structural Analysis
CIVE 550 (3) Water Resources Management
CIVE 572 (3) Computational Hydraulics
ECSE 322 (3) Computer Engineering
ECSE 424 (3) Human-Computer Interaction
ECSE 427 (3) Operating Systems
ECSE 526 (3) Artificial Intelligence
ECSE 531 (3) Real Time Systems
ECSE 532 (3) Computer Graphics
MECH 474 (3) Selected Topics in Operations Research
MECH 524 (3) Computer Integrated Manufacturing
MECH 539 (3) Computational Aerodynamics
MECH 545 (3) Advanced Stress Analysis
MECH 576 (3) Computer Graphics and Geometrical Modelling

No more than two courses (6 credits) can be selected from the
following list of courses offered by the School of Computer
Science,
COMP 302 (3) Programming Languages and Paradigms
COMP 335 (3) Software Engineering Methods
COMP 420 (3) Files and Database Systems
COMP 421 (3) Introduction to Database Systems
COMP 424 (3) Topics in Artificial Intelligence
COMP 426 (3) Automated Reasoning
COMP 431 (3) Algorithms and Data Structures
COMP 433 (3) Personal Software Engineering
COMP 538 (3) Person-Machine Communication

5 Management

5.1 Concentrations

ACCOUNTING
Approved as published in the Calendar.

ENTREPRENEURSHIP
Required Course (3 credits)
BUS 464 (3) Management of Small Enterprises

Complementary Courses (12 credits)
one of:
BUS 462 (3) Management of New Enterprises
BUS 465 (3) Technological Entrepreneurship
and three of:
ACCT 417 (3) Taxation and Business Decisions
BUS 364 (3) Business Law 1
FINE 445 (3) Real Estate Finance
MGPO 383 (3) International Business Policy
MGPO 562 (3) Seminar in Organizational Strategy
MRKT 354 (3) Marketing Management 2
MRKT 452 (3) Consumer Behaviour
MRKT 453 (3) Advertising Management

FINANCE
Required Courses (9 credits)
FINE 342 (3) Finance 2
FINE 441 (3) Investments and Portfolio Management
FINE 443 (3) Applied Corporate Finance

Complementary Course (6 credits)
two of:
FINE 442 (3) Capital Markets and Institutions
FINE 444 (3) Insurance and Risk Management
FINE 445 (3) Real Estate Finance
FINE 448 (3) Derivatives and Risk Management
FINE 480 (3) Global Investments  
FINE 482 (3) International Finance 1  
FINE 492 (3) International Finance 2  
FINE 541 (3) Applied Investments  
FINE 645 (3) Money and Capital Markets  

INFORMATION SYSTEMS  
Approved as published in the Calendar.

INTERNATIONAL BUSINESS  
Approved as published in the Calendar.

LABOUR-MANAGEMENT RELATIONS  
Approved as published in the Calendar.

MARKETING  

Required Courses (12 credits)  
MRKT 354 (3) Marketing Management 2  
MRKT 357 (3) Marketing Planning  
MRKT 451 (3) Marketing Research (to be taken in U2)  
MRKT 452 (3) Consumer Behaviour  

Complementary Course (3 credits)  
one of:  
MRKT 351 (3) Marketing in Society  
MRKT 355 (3) Service Marketing  
MRKT 365 (3) New Products  
MRKT 438 (3) Brand Management  
MRKT 455 (3) Sales Force Management  
MRKT 456 (3) Industrial Marketing  
MRKT 459 (3) Retail Management  
MRKT 461 (3) Advertising Practicum  
MRKT 483 (3) International Marketing  
MRKT 557 (3) Marketing Research 2

ORGANIZATIONAL BEHAVIOUR AND HUMAN RESOURCE MANAGEMENT  
Approved as published in the Calendar.

STRATEGIC MANAGEMENT  
Approved as published in the Calendar.

6 Science

6.1 Anatomy and Cell Biology

MAJOR PROGRAM IN ANATOMY AND CELL BIOLOGY  
(69 credits)

Required Courses (60 credits)  
ANAT 212 (3) Molecular Mechanisms of Cell Function  
ANAT 214 (3) Systemic Human Anatomy  
ANAT 261 (4) Introduction to Dynamic Histology (must be taken in U1)  
ANAT 262 (3) Introductory Molecular & Cell Biology  
ANAT 321 (3) Circuitry of the Human Brain  
ANAT 322 (3) Neuroendocrinology  
ANAT 365 (3) Cell Biology of the Secretory Process  
ANAT 381 (3) Experimental Basis of Embryology  
ANAT 458 (3) Membranes and Cellular Signaling  
BIOL 200 (3) Molecular Biology  
BIOL 202 (3) General Genetics  
BIOL 301 (4) Cell and Molecular Laboratory  
CHEM 212* (4) Organic Chemistry 1  
CHEM 222* (4) Organic Chemistry 2  
MATH 203* (3) Principles of Statistics 1  
or PSYC 204 (3) Introduction to Psychological Statistics  
or BIOL 373 (3) Biostatistical Analysis  
MIMM 314 (3) Immunology  
PHGY 209 (3) Mammalian Physiology 1  
PHGY 210 (3) Mammalian Physiology 2  
PHGY 212D1 (1) Introductory Physiology Lab  
PHGY 212D2 (1) Introductory Physiology Lab  

* If the equivalents to these courses were passed in CEGEP, they are not required for the Anatomy and Cell Biology programs, and may not be re-taken at McGill. Students must take the equivalent number of credits in Elective Courses to satisfy the total credit requirement for their degree.

Complementary Courses (9 credits)  
9 credits selected from biologically oriented courses (BOC) in the following list:  
BIOL 300, BIOL 301, BIOL 303, BIOL 306, BIOL 313, BIOL 314, BIOL 357, BIOL 370, BIOL 389, BIOL 468, BIOL 475, BIOL 516, BIOL 518, BIOL 520, BIOL 522, BIOL 524, BIOL 530, BIOL 531, BIOL 532, BIOL 551, BIOL 572, BIOL 588;  
ANAT 322, ANAT 365, ANAT 381, ANAT 432, ANAT 541;  
BIOC 311, BIOC 312, BIOC 450, BIOC 454, BIOC 455, BIOC 503;  
BIOT 505;  
EXMD 401, EXMD 502, EXMD 503, EXMD 504, EXMD 506, EXMD 507, EXMD 508, EXMD 509, EXMD 510, EXMD 511, EXMD 512D;  
MIMM 314, MIMM 323, MIMM 324, MIMM 386D1/MIMM 386D2, MIMM 387, MIMM 413, MIMM 414, MIMM 465, MIMM 466, MIMM 509;  
NEUR 310;  
PATH 300;  
PHAR 300, PHAR 301, PHAR 562, PHAR 563;  
PHGY 311, PHGY 312, PHGY 313, PHGY 423, PHGY 444, PHGY 451, PHGY 502, PHGY 508, PHGY 513, PHGY 515, PHGY 516, PHGY 517, PHGY 518, PHGY 520, PHGY 531, PHGY 552, PHGY 556;  
PSYT 500.

HONOURS PROGRAM IN ANATOMY AND CELL BIOLOGY  
(81 credits)

Students should register at the Major level in U1 and, if accepted, may enter the Honours Program at the beginning of U2. To enter the program, the student must obtain a CGPA of at least 3.00 at the end of U1. For promotion to the U3 year of the Honours program, or for entry into the program at this level, the student must have a CGPA of at least 3.20 at the end of their U2 year. It is expected that at the beginning of the third year the students who wish to continue in the Honours Program will be those who feel that they are seriously interested in a career in Cell Biology. The Honours Degree will be recommended after successful completion of the Program with a CGPA of at least 3.20.

Required Courses (78 credits)  
all Major Program required courses, plus:  
ANAT 432 (9) Research Project: Anatomical Science  
ANAT 541 (3) Cell and Molecular Biology of Aging  
BIOC 311 (3) Metabolic Biochemistry  
BIOC 312 (3) Biochemistry of Macromolecules  

Complementary Courses (3 credits)  
3 credits of biologically oriented courses (BOC), as defined in the Major Program.

6.2 Cognitive Science

MINOR PROGRAM IN COGNITIVE SCIENCE  
(27 credits)

Required Course (3 credits)  
PSYC 532 (3) Cognitive Science

Complementary Courses (24 credits)  
from outside of the student's home department, selected from the courses listed below.

Computer Science  
COMP 424 (3) Artificial Intelligence 1  
COMP 426 (3) Automated Reasoning  
COMP 558 (3) Fundamentals of Computer Vision
6.3 Computer Science

MINOR PROGRAM IN COMPUTER SCIENCE (24 credits)

Required Courses (12 credits)

- COMP 202 (3) Introduction to Computing 1
- COMP 203 (3) Introduction to Computing 2
- COMP 206 (3) Intro to Software Systems
- COMP 302 (3) Programming Languages and Paradigms

Complementary Courses (12 credits)

selected from:

- COMP 251 (3) Data Structures and Algorithms
- COMP 273 (3) Intro. to Computer Systems
- COMP 303 (3) Programming Techniques
- COMP 304 (3) Object-oriented Design
- COMP 310 (3) Comp. Systems and Organization
- COMP 335 (3) Software Engineering Methods
- COMP 350 (3) Numerical Computing
- or MATH 317 (3) Numerical Analysis
- COMP 360 (3) Algorithm Design Techniques
- COMP 361 (3) Systems Programming Project
- COMP 409 (3) Concurrent Programming
- COMP 410 (3) Mobile Computing
- COMP 412 (3) Software for e-Commerce
- COMP 420 (3) Files and Databases
- COMP 421 (3) Database Systems
- COMP 423 (3) Data Compression
- COMP 424 (3) Artificial Intelligence 1
- COMP 428 (3) Automated Reasoning
- COMP 433 (3) Personal Software Engineering

or from outside the School approved by the adviser, to a maximum of 6 credits.

MAJOR PROGRAM IN COMPUTER SCIENCE (60 credits)

To enter the program, students must have completed MATH 140 and MATH 141, or their equivalents. MATH 133, or its equivalent, may be taken prior to entry or concurrently with COMP 250 during the first semester in the program. Freshman Program students interested in Computer Science should try to take COMP 202 if possible, but it is not required for entry to the Major. A student entering with insufficient programming background may take COMP 202 but it will not count for program credit.

Required Courses (42 credits)

- COMP 250 (3) Intro to Computer Science
- COMP 251 (3) Data Structures and Algorithms
- COMP 206 (3) Intro to Software Systems
- COMP 273 (3) Intro. to Computer Systems
- COMP 302 (3) Programming Languages and Paradigms
- COMP 310 (3) Comp. Systems and Organization
- COMP 330 (3) Theoretical Aspects of Computer Science
- COMP 350 (3) Numerical Computing
- COMP 360 (3) Algorithm Design Techniques
- MATH 222 (3) Calculus 3
- MATH 223 (3) Linear Algebra
- MATH 240 (3) Discrete Structures and Computing
- MATH 323 (3) Probability Theory
- MATH 340 (3) Abstract Algebra and Computing

Complementary Courses (18 credits)

15 credits from:

- COMP 303 (3) Programming Techniques
- COMP 304 (3) Object-oriented Design
- COMP 335 (3) Software Engineering Methods
- COMP 361 (3) Systems Programming Project
- COMP 409 (3) Concurrent Programming
- COMP 410 (3) Mobile Computing
- COMP 412 (3) Software for e-Commerce
- COMP 420 (3) Files and Databases
- COMP 421 (3) Database Systems
- COMP 423 (3) Data Compression
- COMP 424 (3) Artificial Intelligence 1
- COMP 426 (3) Automated Reasoning
- COMP 433 (3) Personal Software Engineering
- COMP 435 (3) Basics of Computer Networks
- COMP 490 (3) Fund. of Computer Vision
- COMP 560 (3) Graph Algorithms and Applications
- COMP 562 (3) Computational Biology Methods
- COMP 566 (3) Discrete Optimization 1
- COMP 567 (3) Discrete Optimization 2
- COMP 573 (3) Microcomputers
- COMP 575 (3) Fundamentals of Distributed Algorithms
- COMP 577 (3) Distributed Database Systems
- COMP 582 (3) High-Performance Computer Architecture
- COMP 590 (3) Intro to Probabilistic Analysis Algorithms
- COMP 595 (3) High-Performance Computer Architecture
- COMP 596 (3) Advanced Analysis of Algorithms
- COMP 599 (3) High-Performance Computer Architecture
- COMP 600 (3) Advanced Analysis of Algorithms

24 (September 3, 2002) Calendar Supplement – 2002-2003 Undergraduate Programs, McGill University
COMP 507 (3) Computational Geometry
COMP 520 (4) Compiler Design
COMP 522 (4) Modelling and Simulation
COMP 524 (3) Theoretical Found. of Prog. Lang.
COMP 525 (3) Formal Verification
COMP 526 (3) Probabilistic Reasoning and AI
COMP 531 (3) Theory of Computation
COMP 534 (3) Team Software Engineering
COMP 535 (3) Computer Networks
COMP 537 (3) Internet Programming
COMP 538 (3) Person-Machine Communication
COMP 540 (3) Matrix Computations
COMP 547 (3) Cryptography and Data Security
COMP 557 (3) Fundamentals of Computer Graphics
COMP 558 (3) Fundamentals of Computer Vision
COMP 560 (3) Graph Algorithms and Applications
COMP 562 (3) Computational Biology Methods
COMP 566 (3) Discrete Optimization 1
COMP 567 (3) Discrete Optimization 2
COMP 573 (3) Microcomputers
COMP 575 (3) Fundamentals of Distributed Algorithms
COMP 577 (3) Distributed Database Systems
ECSE 323 (3) Digital System Design
ECSE 426 (3) Microprocessor Systems
ECSE 531 (3) Real Time Systems
ECSE 548 (3) Introduction to VLSI Systems
3 credits from Mathematics selected from:
MATH 242 (3) Analysis 1
MATH 243 (3) Real Analysis
MATH 255 (3) Analysis 2
and any 300-level or above Mathematics course
(excluding MATH 338, MATH 323, MATH 340)

MAJOR PROGRAM IN SOFTWARE ENGINEERING
(72 to 74 credits)

To enter this program, students must meet the eligibility require-
ments for the Major program in Computer Science
Holders of this degree will not be eligible for accreditation
(when accreditation standards for Software Engineers are intro-
duced). Students wishing to be accredited should enroll in the
Bachelor of Software Engineering degree program.

Required Courses (63 credits)
COMP 202 (3) Introduction to Computing 1
COMP 206 (3) Intro to Software Systems
COMP 250 (3) Intro to Computer Science
COMP 251 (3) Data Structures and Algorithms
COMP 273 (3) Introduction to Computer Systems
COMP 302 (3) Programming Languages and Paradigms
COMP 304 (3) Object-oriented Design
COMP 330 (3) Theoretical Aspects of Computer Science
COMP 360 (3) Algorithm Design Techniques
COMP 361 (3) Systems Development Project
ECSE 221 (3) Introduction to Computer Engineering
ECSE 321 (3) Introduction to Software Engineering
ECSE 427 (3) Operating Systems
ECSE 428 (3) Software Engineering
ECSE 429 (3) Validation & Verification
ECSE 495 (3) Software Engineering Project
MATH 223 (3) Linear Algebra
MATH 240 (3) Discrete Structures and Computing
MATH 260 (3) Intermediate Calculus
MATH 323 (3) Probability Theory
MATH 324 (3) Statistics

Complementary Courses (9 to 11 credits)
selected from the following:
COMP 303 (3) Programming Techniques
COMP 335 (3) Software Engineering Methods
COMP 350 (3) Numerical Computing
COMP 408 (3) Concurrent Programming
COMP 410 (3) Mobile Computing
COMP 412 (3) Software for e-commerce
COMP 420 (3) Files and Databases
COMP 421 (3) Database Systems
COMP 424 (3) Artificial Intelligence 1
COMP 433 (3) Personal Software Engineering
COMP 435 (3) Basics of Computer Networks
COMP 505 (3) High-Performance Computer Architecture
COMP 520 (4) Compiler Design
COMP 522 (4) Modelling and Simulation
COMP 525 (3) Formal Verification
COMP 526 (3) Probabilistic Reasoning and AI
COMP 535 (3) Computer Networks
COMP 537 (3) Internet Programming
COMP 547 (3) Cryptography and Data Security
COMP 558 (3) Fundamentals of Computer Vision
COMP 560 (3) Graph Algorithms and Applications
COMP 566 (3) Discrete Optimization 1
COMP 575 (3) Fundamentals of Distributed Algorithms
COMP 577 (3) Distributed Database Systems
ECSE 200 (3) Fundamentals of Electrical Engineering
ECSE 210 (3) Circuit Analysis
ECSE 291 (2) Electrical Measurement Lab
ECSE 303 (3) Signals and Systems 1
ECSE 304 (3) Signals and Systems 2
ECSE 322 (3) Computer Engineering
ECSE 323 (5) Digital Systems Design
ECSE 404 (3) Control Systems
ECSE 411 (3) Communications Systems
ECSE 420 (3) Parallel Computing
ECSE 421 (3) Embedded Systems
ECSE 422 (3) Fault-Tolerant Computing
ECSE 424 (3) Human-Computer Interaction
ECSE 425 (3) Computer Organization and Architecture
ECSE 426 (3) Microprocessor Systems
or COMP 573 (3) Microcomputers
ECSE 504 (3) Computer Control
ECSE 522 (3) Asynchronous Circuits and Systems
ECSE 526 (3) Artificial Intelligence
ECSE 529 (3) Image Processing & Communication
ECSE 530 (3) Logic Synthesis
ECSE 531 (3) Real Time Systems
ECSE 532 (3) Computer Graphics
or COMP 557 (3) Fundamentals of Computer Graphics
MATH 261 (3) Differential Equations
MATH 381 (3) Complex Variables and Transforms

HONOURS PROGRAM IN COMPUTER SCIENCE (72 credits)
Honours students must maintain a CGPA of 3.00 and must have
at least this average upon graduation as well.

Required Courses (45 credits)
all Major Program required courses, plus
COMP 400 (3) Technical Project and Report

Complementary Courses (27 credits)
24 credits from Major Program in Computer Science
complementary courses in Computer Science.
3 credits from Major Program in Computer Science
complementary courses in Mathematics.

6.4 Physics

JOINT HONOURS PROGRAM IN PHYSICS AND CHEMISTRY
(80 credits)
This is a specialized and demanding program intended primarily,
although not exclusively, for students with a theoretical bias who
are interested in working in fields of study at the crossroads of
physical chemistry and physics. The program will prepare students
for either theoretical or experimental graduate work in depart-
ments where there is an emphasis on such cross-disciplinary areas as condensed matter physics, chemical physics, or material science.

A student whose average in the required and complementary courses in any year falls below a GPA of 3.00, or whose grade in any individual required or complementary course falls below a C (in both the final examination and supplemental examination if taken), may not register in this Joint Honours program the following year, or graduate with the Joint Honours degree, except with permission of both Departments.

**U1 Required Courses** (28 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 213</td>
<td>Physical Chemistry 1</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 273</td>
<td>Chemical Kinetics</td>
<td>1</td>
</tr>
<tr>
<td>MATH 247</td>
<td>Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 248</td>
<td>Advanced Calculus 1</td>
<td>3</td>
</tr>
<tr>
<td>MATH 249</td>
<td>Advanced Calculus 2</td>
<td>3</td>
</tr>
<tr>
<td>MATH 325</td>
<td>Ordinary Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 241</td>
<td>Signal Processing</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 251</td>
<td>Classical Mechanics 1</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 257</td>
<td>Experimental Methods 1</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 258</td>
<td>Experimental Methods 2</td>
<td>3</td>
</tr>
</tbody>
</table>

**U2 Required Courses** (26 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 212</td>
<td>Organic Chemistry 1</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 281</td>
<td>Inorganic Chemistry 1</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 355</td>
<td>Molecular Properties &amp; Structure 2</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 363</td>
<td>Physical Chemistry Lab</td>
<td>2</td>
</tr>
<tr>
<td>CHEM 365</td>
<td>Statistical Thermodynamics</td>
<td>2</td>
</tr>
<tr>
<td>COMP 208</td>
<td>Computers in Engineering</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 350</td>
<td>Electromagnetism</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 357</td>
<td>Quantum Physics 1</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 457</td>
<td>Quantum Physics 2</td>
<td>3</td>
</tr>
</tbody>
</table>

**U3 Required Courses** (14 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 393</td>
<td>Physical Chemistry Lab 2</td>
<td>2</td>
</tr>
<tr>
<td>CHEM 455</td>
<td>Polymer Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 556</td>
<td>Advanced Quantum Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 352</td>
<td>Electromagnetic Waves</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 558</td>
<td>Solid State Physics</td>
<td>3</td>
</tr>
</tbody>
</table>

**U3 Complementary Courses** (12 credits)

3 credits selected from:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 593</td>
<td>Statistical Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 559</td>
<td>Advanced Statistical Mechanics</td>
<td>3</td>
</tr>
</tbody>
</table>

9 credits selected from:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 480</td>
<td>Research Project</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 490</td>
<td>Research Project</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 531</td>
<td>Chemistry of Inorganic Materials</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 575</td>
<td>Chemical Kinetics</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 585</td>
<td>Colloid Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>MATH 375</td>
<td>Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 434</td>
<td>Optics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 451</td>
<td>Classical Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 469</td>
<td>Lab in Modern Physics 2</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 479</td>
<td>Honours Project Lab</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 562</td>
<td>Electromagnetic Theory</td>
<td>3</td>
</tr>
</tbody>
</table>

6 credits in Psychology from List B
6 credits in Psychology at the 300 level or above
6 credits in Psychology 400 or 500 level
18 approved credits, at least 9 of which are at the 300 level or above

**B.SC. MAJOR PROGRAM IN PSYCHOLOGY** (54 credits)

**U1 Required Courses** (12 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 211</td>
<td>Intro. Behavioural Neuroscience</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 212</td>
<td>Perception</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 213</td>
<td>Cognition</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 215</td>
<td>Social Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

Note: PSYC 100 may be taken as a corequisite with these basic courses.

**Complementary Courses** (42 credits)

6 credits in Psychology from List A

**B.SC. HONOURS PROGRAM IN PSYCHOLOGY** (54 credits)

Students should note that awarding of the Honours degree will depend on both cumulative grade point average and a minimum grade of B on PSYC 380D1/PSYC 380D2/PSYC 481D1/PSYC 481D2, PSYC 482 and PSYC 483. "First Class Honours" is awarded to students who obtain a minimum cumulative grade point average of 3.50 and a minimum CGPA of 3.50 in the four Honours courses of which 12 out of 18 credits received at least an A+ grade. "Honours" is awarded to students with a minimum cumulative grade point average of 3.00 and a minimum GPA of 3.00 on each of the four honours courses. Moreover, the awarding of the Honours degree normally requires completion of two full years of study, U2 and U3, in the Psychology Department. Exceptionally good students may be admitted for the U3 year only on the basis of their marks and research experience, however these students must complete 9 credits from List A and 9 credits from List B.

**U1 Required Courses** (12 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 211</td>
<td>Intro. Behavioural Neuroscience</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 212</td>
<td>Perception</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 213</td>
<td>Cognition</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 215</td>
<td>Social Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

Note: PSYC 100 may be taken as a corequisite with these basic courses.

**U1 or U2 Required Course** (3 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 400</td>
<td>Statistics for Experimental Design</td>
<td>3</td>
</tr>
</tbody>
</table>

**U2 Required Courses** (6 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 380D1</td>
<td>Honours Research Project and Seminar</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 380D2</td>
<td>Honours Research Project and Seminar</td>
<td>3</td>
</tr>
</tbody>
</table>

**U3 Required Courses** (12 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 481D1</td>
<td>Honours Thesis Research</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 481D2</td>
<td>Honours Thesis Research</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 482</td>
<td>Advanced Honours Seminar 1</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 483</td>
<td>Advanced Honours Seminar 2</td>
<td>3</td>
</tr>
</tbody>
</table>

**Complementary Courses** (21 credits)

6 credits in Psychology from List A
6 credits in Psychology from List B
9 credits at the 300 level or higher selected from: Psychology (PSYC), Anatomy and Cell Biology (ANAT), Biology (BIOL), Biochemistry (BIOC), Chemistry (CHEM), Computer Science (COMP), Mathematics (MATH), Physiology (PHGY), Psychiatry (PSYT).
### 6.6 Science for Teachers

**Biology Course Lists used in Various Options**

**Biology List A:** (22 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 208 (3) Introduction to Ecology
- BIOL 301 (4) Cell and Molecular Laboratory

**Biology List B:** (9 credits)
to be selected from the following:
- BIOL 304 (3) Evolution
- BIOL 370 (3) Human Genetics Applied
- PHGY 201 (3) Human Physiology: Control Systems
  or PHGY 209 (3) Mammalian Physiology 1

**Biology List C:** (6 credits)
to be selected from the following:
- BIOL 465 (3) Conservation Biology
- BIOL 331 (3) Ecology / Behaviour Field Course
  or BIOL 334 (3) Applied Tropical Ecology
  or BIOL 335 (3) Marine Mammals
  or BIOL 336 (3) Marine Aquaculture
  or BIOL 337 (3) Ecology and Behaviour of Fishes

### 7 School of Environment

#### B.A. FACULTY PROGRAM IN ENVIRONMENT

**ENVIRONMENT AND DEVELOPMENT DOMA IN**

Correction: ECON 208 belongs in the third group of Domain Complementary Courses.

This Domain (54 credits including Core) is open only to students in the B.A. Faculty Program in Environment.

Courses offered at Macdonald Campus are marked with an (M). (Introductory Core Courses are offered on both campuses.)

**NOTE:** Students are required to take a maximum of 30 credits at the 200 level and a minimum of 12 credits at the 400 level or higher in this program. This includes Core and Required courses.

**Core — Required Courses** (18 credits)
- ENVR 200 (3) The Global Environment
- ENVR 201 (3) Society and Environment
- ENVR 202 (3) The Evolving Earth
- ENVR 203 (3) Knowledge, Ethics and Environment
- ENVR 400 (3) Environmental Thought
- ENVR 401 (3) Environmental Research
* Students taking ENVR 401 in Sept. 2002 must contact the Program Coordinator prior to registering, email: info.mse@mcgill.ca

**Domain — Required Courses** (15 credits)
- ANTH 339 (3) Ecological Anthropology
- BIOL 208 (3) Ecology
- ECON 313 (3) Economic Development 1
- ECON 314 (3) Economic Development 2
- GEOG 302 (3) Environmental Management 1

**Domain — Complementary Courses** (21 credits)

3 credits in statistics to be chosen from:
- MATH 203 (3) Principles of Statistics 1
- PSYC 204 (3) Introduction to Psychological Statistics (or equivalent)
- SOCI 350 (3) Statistics in Social Research
6 credits to be chosen from the following:

ANTH 418 (3) Environment and Development
GEOG 408 (3) Geography of Development
GEOG 410 (3) Geography of Underdevelopment: Current Problems

12 credits to be chosen from the following:

ECON 208 (3) Microeconomic Analysis and Applications
(NB: this course is a prerequisite for the required course ECON 313)
AGEC 333 (3) Resource Economics (M)
AGEC 430 (3) Agriculture, Food and Resource Policy (M)
AGEC 442 (3) Economics of International Agricultural Development (M)
AGRI 210 (3) Agro-Ecological History (M)
AGRI 411 (3) International Agriculture (M)
ANTH 349 (3) Transformation of Developing Countries
ANTH 358 (3) Process of Anthropological Research
ANTH 439 (3) Theories of Development
ANTH 445 (3) Property and Land Tenure
BIOL 465 (3) Conservation Biology
BIOL 535 (3) Political Ecology
BIOL 553 (3) Neotropical Environments (in Panama)
BIOL 560 (3) Aquatic Conservation
ECON 326 (3) Ecological Economics
ECON 405 (3) Natural Resource Economics
ECON 412 (3) Topics in Economic Development 1
ECON 416 (3) Topics in Economic Development 2
GEOG 300 (3) Human Ecology in Geography
GEOG 305 (3) Geography of Soils
GEOG 322 (3) Environmental Hydrology
GEOG 331 (3) Urban Social Geography
GEOG 404 (3) Environmental Management 2 (in Panama or Africa)
GEOG 408 (3) Geography of Development
GEOG 496 (3) Geographical Excursion
GEOG 498 (3) Humans in Tropical Environments (in Panama)
GEOG 500 (3) Geography of Regional Identity
GEOG 502 (3) Geography of Northern Development
GEOG 510 (3) Humid Tropical Environments
GEOG 551 (3) Environmental Decisions
HIST 292 (3) History and the Environment
HIST 473D1 (3) Topics: Environmental History
HIST 473D2 (3) Topics: Environmental History
INTD 497 (3) Research Seminar on International Development
MGPO 440 (3) Strategies for Sustainable Development
MGPO 567 (3) Business in Society
NUTR 406 (3) Ecology of Human Nutrition (M)
NUTR 501 (3) Nutrition in Developing Countries (M)
PARA 410 (3) Environment and Infection (M)
POLI 338 (3) Developing Areas/Topics 1
POLI 422 (3) Developing Areas/ Topics 2
POLI 445 (3) IPE: North-South Relations
POLI 472 (3) Developing Areas/ Social Movements
POLI 522 (3) Developing Areas/Honours Seminar
SOCL 328 (3) Environmental Sociology
SOCL 354 (3) Dynamics of Industrial Societies
SOCL 550 (3) Sociology of Developing Societies
SWRK 532 (3) International Social Work
URBP 505 (3) Geographic Information Systems
WILD 375 (3) Issues in Environmental Sciences (M)
WILD 380 (3) Law and Land Use Policy (M)
WILD 415 (2) Conservation Law (M)