Arts and Science 101: Handbook
2016-2017
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Registration Resources

- Steps to Registration: [www.QUartsci.com/firstyear](http://www.QUartsci.com/firstyear)
- First year registration hotline: Call us at (613) 533-6708 if you need help with registration. Our phone lines will be open Monday through Friday from 9:00 am to noon; 1:00 to 4:00 pm EST. We will offer extended hours from 4:00 to 7:00 pm EST on July 6, 7, 11, and 12.
- Arts and Science Facebook Page: [www.facebook.com/queensartsci](http://www.facebook.com/queensartsci)
- Faculty of Arts and Science Registration email: [asc.registration@queensu.ca](mailto:asc.registration@queensu.ca)
- Faculty Office, Student Services: Dunning Hall – First Floor, 94 University Avenue
  - Phone: 613-533-2470
  - Our doors are open Monday-Friday from 8:30 am to noon; 1:00 to 4:30 pm. Our phones are answered Monday-Friday from 9:00 am to noon; 1:00 to 4:00 pm EST.
  - The Office will be operating under reduced services from August 1-12. Academic advising will not be available.
- Faculty of Arts & Science Academic Calendar (regulations): [www.queensu.ca/artsci/academic-calendar](http://www.queensu.ca/artsci/academic-calendar)
  *It is strongly suggested that students read the University’s Code of Conduct on the internet at [www.queensu.ca/secretariat/policies.html](http://www.queensu.ca/secretariat/policies.html), and familiarize themselves with the statement of Student Responsibility and the Faculty's Regulations.*
- Peer Academic Support Service (PASS) Advising for First-Year Students in the Faculty Office, Student Services:
  - Dunning Hall – First Floor, 94 University Avenue
  - Monday-Friday from 9 -12 and 1-4 beginning Wednesday, September 9, 2015
- Peer tutoring service through Arts and Science Undergraduate Society: [https://tutor.queensasus.com/](http://https://tutor.queensasus.com/)
## Important Dates

### JULY

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Students can access the Student Centre on SOLUS to view enrollment appointment times.</td>
</tr>
<tr>
<td>4</td>
<td>Students may begin adding their classes into the shopping cart in SOLUS.</td>
</tr>
<tr>
<td>7</td>
<td>Summer Orientation to Academics and Resources (SOAR). For information and to register see: <a href="http://www.queensu.ca/studentexperience/summer-orientation-soar">http://www.queensu.ca/studentexperience/summer-orientation-soar</a></td>
</tr>
<tr>
<td>8</td>
<td>Summer Orientation to Academics and Resources (SOAR). For information and to register see: <a href="http://www.queensu.ca/studentexperience/summer-orientation-soar">http://www.queensu.ca/studentexperience/summer-orientation-soar</a></td>
</tr>
<tr>
<td>9</td>
<td>Summer Orientation to Academics and Resources (SOAR). For information and to register see: <a href="http://www.queensu.ca/studentexperience/summer-orientation-soar">http://www.queensu.ca/studentexperience/summer-orientation-soar</a></td>
</tr>
<tr>
<td>10</td>
<td>Summer Orientation to Academics and Resources (SOAR). For information and to register see: <a href="http://www.queensu.ca/studentexperience/summer-orientation-soar">http://www.queensu.ca/studentexperience/summer-orientation-soar</a></td>
</tr>
<tr>
<td>11</td>
<td>Enrollment appointment times for 1st year BSCH, BCMHP students; students may begin enrolling in classes.</td>
</tr>
<tr>
<td>12</td>
<td>Enrollment appointment times for 1st year BAH, BFAH, BMUS, BPHEH students; students may begin enrolling in classes.</td>
</tr>
<tr>
<td>18</td>
<td>Program specific restrictions are removed from classes at 12:00 pm EST.</td>
</tr>
<tr>
<td>21</td>
<td>Enrollment restrictions are lifted; wait lists on classes will be initiated.</td>
</tr>
<tr>
<td>29</td>
<td>Last day to enrol in classes.</td>
</tr>
</tbody>
</table>

### AUGUST

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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</thead>
<tbody>
<tr>
<td>1-12</td>
<td>Registration Hiatus (no access to registration until 23 August).</td>
</tr>
<tr>
<td>23</td>
<td>Open Enrollment begins for students to add and drop classes.</td>
</tr>
</tbody>
</table>

### SEPTEMBER

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Tuition fees due for Fall Term.</td>
</tr>
<tr>
<td>4</td>
<td>Residence Move-In Day &amp; Orientation; Welcoming Ceremony for new students.</td>
</tr>
<tr>
<td>5</td>
<td>Labour Day.</td>
</tr>
<tr>
<td>7</td>
<td>Arts &amp; Science Orientation.</td>
</tr>
<tr>
<td>12</td>
<td>Fall Term classes begin.</td>
</tr>
<tr>
<td>23</td>
<td>Last day to add classes for Fall Term.</td>
</tr>
<tr>
<td>23</td>
<td>Last day to drop classes for Fall Term without financial penalty.*</td>
</tr>
</tbody>
</table>
In order to understand how your degree works, you need to first learn some important terms.

**What is a Program?**
Upon entering first year, you have been admitted to the Faculty of Arts and Science to one of the following Degree Programs:

- Bachelor of Science (Honours) - BSCH
- Bachelor of Arts (Honours) - BAH
- Bachelor of Science (Honours) Specialization in Kinesiology – BSCH KINE
- Bachelor of Physical and Health Education (Honours) - BPHEH
- Bachelor of Music (Honours) - BMUS
- Bachelor of Computing (Honours) - BCMPH
- Bachelor of Fine Art (Honours) - BFAH

**What is a Plan?**
A plan is a major, medial (similar to a double major) or specialization in a discipline. You can also add a minor to your plan. You will declare your plan at the end of first year, so don’t worry too much about it yet. Officially it’s an approved set of courses required to focus in an area of study. The depth of focus may vary according to Plan type. More than one Plan may be required to obtain a degree.

**What is a Unit?**
Each course has a weighting. Most courses are either 3.0 (single-term) units or 6.0 (multi-term) units. There are a few exceptions where course units don’t follow this standard. To graduate, it’s not the number of courses you complete, but rather the number of units – so make sure to watch your unit count. A full time student normally takes five courses (30.0 units). Students in BMUS, BA/BEd and BA/BPHE have a load higher than 30.0 units.

**What is the Calendar?**
The Academic Calendar is not really a calendar at all – it is a collection of important information concerning admission, academics, appeals, dual and second degree regulations. The Calendar also outlines departmental information, programs and degree plans, certificates, courses of instruction, course lists, and academic calendar dates.

**Academic Calendar Definitions**

- **Admission:** the Faculty's acceptance of an applicant as a student
- **Auditor:** student who attends a course with the consent of the instructor; formal registration required but student does not receive credit for course and is not entitled to submit exercises or write examinations
- **Class:** a particular offering of a given course
- **Corequisite:** a requirement that must be fulfilled concurrently with another course
- **Course:** a prescribed set of study and evaluation, used for academic credit towards a degree Program
Core: a course that is required, or is selected from an extremely limited list of courses, in a Plan

Elective: a course freely chosen by the student

Equivalency: a pair of courses of equal unit value, one of which is no longer offered, which are considered to be similar enough that one may serve interchangeably for the other in terms of prerequisites, corequisites, exclusions, and plan and program requirements. Credit will only be given for one of the pair.

Exclusion: a list of two or more courses that are considered similar enough that credit will only be given for a defined subset of courses from that list. Usually, holding credit for an excluded course(s) will prevent registration of the remaining courses on the list

GPA (grade point average): the unit-weighted average grade in a set of courses

Level in program: determined by the number of passed units completed toward the requirements of the concentration, as specified by the Department:

- 0.0 - 23.9 (level 1)
- 24.0 - 47.9 (level 2)
- 48.0 - 83.9 (level 3)
- 84.0 and above (level 4)

One-way exclusion: a course that will prevent registration if taken with or before another course

Option: a course chosen from a limited list of courses specified in a Plan. The degree of choice may vary according to the Plan

Part-time student: may take at most 18.0 units in the Fall-Winter Session; may take at most 9.0 units in either Fall or Winter terms

Prerequisite: a requirement that must be met prior to registration in a course

Registration: a student’s enrolment in a course or courses

Session: an academic period within a Term. Start and end dates for each Session are published annually under Academic Dates and Key Dates in the Academic Calendar

Subject: a defined area of study

Supporting course: a course in a Plan that complements the area of study; some Plans have required supporting courses (e.g. mathematics courses in a Physics Plan); others do not

Term: an academic period during the calendar year. There are three terms: Fall (September-December), Winter (January-April), Summer (May-August). Start and end dates for each Term are published annually under Academic Dates and Key Dates
How UNITS work

BSCH & BCMPH
(Bachelor of Science Honours & Bachelor of Computing Honours– 120 Units)

Option 1: Major
60 units (major) + up to 12 supporting units (Major)
48-60 units (electives)

Option 2: Major - Minor
60 units (major) + up to 12 supporting units (Major)
30-48 units (minor)
18-30 units (electives)

Option 3: Specialization
84-108 units (specialization)
12-36 units (electives)
How UNITS work

BAH (Bachelor of Arts Honours – 114 Units)

Option 1: Major
- 60 units (major)
- 54 units (electives)

Option 2: Major - Minor
- 60 units (major)
- 30 units (minor)
- 24 units (electives)

Option 3: Medial
- 42 units (medial)
- 42 units (medial)
- 30 units (electives)
# How to read a degree PLAN

This is an example of a page from the Degree Plan Section of the Arts and Science Calendar that outlines the Program Requirements for a Major in Life Sciences. All requirements for all of the subjects that offer plans at Queen's, including Majors, Specializations, Medials, Minors, and General Degrees, are located in the Degree Plan section on the Arts and Science Calendar.

### Life Sciences – Major (Science) – Bachelor of Science (Honours)

**LISC-M-BSH**

Subject: Administered by the Associate Dean, (Life Sciences and Biochemistry)

Plan: Consists of 72.0 units as described below.

Program: The Plan, with sufficient electives to total 120.0 units, will lead to a Bachelor of Science (Honours) Degree.

<table>
<thead>
<tr>
<th>Core</th>
<th>(27.0 units)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td>6.0 units in BIOL 102/3.0 and BIOL 103/3.0</td>
</tr>
<tr>
<td>B.</td>
<td>6.0 units in CHEM 112/6.0</td>
</tr>
<tr>
<td>C.</td>
<td>3.0 units in MICR 221/3.0</td>
</tr>
<tr>
<td>D.</td>
<td>6.0 units in CHEM 281/3.0 and CHEM 282/3.0</td>
</tr>
<tr>
<td>E.</td>
<td>6.0 units from PHGY 210/6.0 or PHGY 214/6.0</td>
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<table>
<thead>
<tr>
<th>Option</th>
<th>(33.0 units)</th>
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<tbody>
<tr>
<td>A.</td>
<td>3.0 units from LISC_List_A at the 400 level or above</td>
</tr>
<tr>
<td>B.</td>
<td>15.0 units from LISC_List_A at the 300 level or above</td>
</tr>
<tr>
<td>C.</td>
<td>9.0 units from LISC_List_A at the 200 level or above</td>
</tr>
<tr>
<td>D.</td>
<td>6.0 units from LISC_List_A</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Supporting</th>
<th>(12.0 units)</th>
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<tbody>
<tr>
<td>A.</td>
<td>6.0 units from PHYS 104/6.0, PHYS 106/6.0, PHYS 117/6.0</td>
</tr>
<tr>
<td>B.</td>
<td>6.0 units from MATH 120/6.0, MATH 121/6.0, (MATH 123/3.0 and MATH 124/3.0), MATH 122/6.0</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Additional Requirements</th>
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<tbody>
<tr>
<td>A.</td>
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<tr>
<th>Substitutions</th>
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<tr>
<th>Notes</th>
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<tbody>
<tr>
<td>A.</td>
</tr>
<tr>
<td>B.</td>
</tr>
<tr>
<td>C.</td>
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</tbody>
</table>
Direct Entry Programs & Automatic Registration

If you were admitted to Concurrent Education (Con-Ed) Arts, Music, Fine Art or Science, Kinesiology, Bachelor of Music or Physical and Health Education you will be automatically registered in some of your classes.

**Con-Ed Arts or Science**, you will need to select 30.0 units of Arts and Science classes. Con-Ed Music, see below for selection of Music classes. Con-Ed Fine Art, see below for selection of Art classes.

- PROF 110/3.0
- PRAC 110/1.5

*Note*: the PROF and PRAC classes are both full-year with A & B sections. The PRAC course is not in your schedule because it is not a weekly class…it reflects a two-week placement that happens outside of class time (at the Holiday Break in Reading Week or after final exams).

**Bachelor of Physical and Health Education**, you will need to pick 9.0 units of classes. Your Physical and Health Education core classes (see below) are automatically added into your timetable for you.

- HLTH 101/3.0 (core)
- KNPE 125/3.0 (core)
- KNPE 153/3.0 (core)
- KNPE 167/3.0
- PACT 100/3.0
- PSYC 100/6.0
Kinesiology, you will need to pick 6.0 units of classes. It is recommended that the additional 6.0 units are selected from the Kinesiology – Natural & Physical Sciences category however an elective choice is also possible. Your Kinesiology core classes (see below) are automatically added into your timetable for you.

- HLTH 101/3.0 (core)
- KNPE 125/3.0 (core)
- KNPE 153/3.0 (core)
- KNPE 167/3.0 (core)
- PSYC 100/6.0 (core)
- BIOL 102/3.0 (science option)*
- BIOL 103/3.0 (science option)*

Important Note: These two Biology classes are NOT core for Kinesiology students. Therefore, if you are not interested in taking one or both of these classes next year, you may go ahead and drop them. They were automatically loaded for all Kinesiology students to make it easier to access a lecture and lab section that fits with the required classes for Kinesiology. Although typically the majority of students want to take these classes, you do not have to.

Bachelor of Fine Art, you will need to pick 12.0 units of classes. If you are in Con-Ed, we recommend that all students enroll in PSYC 100/6.0. If you plan to teach high school, the other 6.0 units should begin your second teaching subject. If you plan to teach elementary school, you may choose anything that interests you.

Your ARTF core classes (see below) are automatically added into your timetable for you.

- ARTF 127/6.0
- ARTF 128/6.0
- ARTH 120/6.0

Important Note: ARTF courses consist of 12 hours of studio classes plus 12 hours of independent studio activities per week.

Bachelor of Music, you will need to pick 6.0 units of classes. Your Music core classes (see below) are automatically added into your timetable for you.

- MUSC 103/3.0
- MUSC 121/6.0
- MUSC 127/3.0 and MUSC 129/3.0
- MUSC 191/6.0
- MUSC 203/3.0

Note: You will need to audition for ensembles in early September; see http://sdm.queensu.ca/music/current-students/auditions/ensemble-auditions/ for more information. Students will be automatically enrolled in ensembles based on these audition results.
Choose your Courses

► Ensure you have the prerequisites to access the Plans you want.
► Consider taking one course that expands your horizons.
► Accept that you can’t do everything: this means hard choices!

WHAT CAN YOU STUDY?

It’s really up to you! As a first-year student you are not yet in a specific Plan or major so this year is all about exploring different areas of study to find out what your true interests are. You are encouraged to take a variety of courses from different disciplines and to explore the range of subjects available to you. After this year, the academic groundwork will be laid for several possible Plan options. You will then be prepared to make well-informed choices about how you would like your degree to take shape.
Courses

Core Courses
These are required courses in your Plan, for which there is little or no choice in the course that must be taken.

Option Courses
These are required courses in your Plan, but there is significant choice allowed in the course(s) that may be taken.

Supporting Courses
These are courses from other disciplines that are required as prerequisites to upper-year courses within your Plan.

*these are all found on the degree plan pages within the Academic Calendar

Students should attempt to select a combination of 5 courses that will leave them with as many Plan options for their second year as possible. A "terminal course" refers to a course that does not lead to a Plan. It is recommended to have between 3 and 4 options for Plans going into second year and Choose Your First-Year Courses also offers a list of subject areas that may lead to Plans.

Exclusions: An exclusion refers to two courses that are so similar they cannot be counted twice towards your Program requirements. This will be obvious in cases where the course maps directly onto one offered at Queen's, i.e. an AP Chemistry credit transfers directly as the first-year chemistry course CHEM 112. In some other cases, however, the course does not overlap directly onto a single course but onto a combination of Queen's courses. In this case an "Unspecified" status may be assigned to the course preventing students from enrolling in specific courses deemed too similar.
Recommended Courses by PLAN

Most Arts and Science first-year students are in an ASC1 (general Arts and Science Year 1) Plan. You will be required to choose a Plan at the end of 1st year. The list allows you to plan what courses to take in first year so you can maximize your options and flexibility in your upper years.

<table>
<thead>
<tr>
<th>Desired Plan</th>
<th>Recommended Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applied Economics (ECON) Major</td>
<td>• ECON 110/6.0 or&lt;br&gt;• ECON 111/3.0 and ECON 112/3.0 (if studying at the Bader&lt;br&gt;International Study Centre)&lt;br&gt;• MATH 126/6.0 or MATH 121/6.0</td>
</tr>
<tr>
<td>Art History (ARTH) Major, Medial, Minor</td>
<td>• ARTH 120/6.0 or&lt;br&gt;• ARTH 116/3.0 and ARTH 117/3.0 (if studying at the Bader&lt;br&gt;International Study Centre)</td>
</tr>
<tr>
<td>Astrophysics (ASPH) Specialization</td>
<td>• MATH 110/6.0 or MATH 111/6.0&lt;br&gt;• MATH 120/6.0 or MATH 121/6.0&lt;br&gt;• PHYS 104/6.0 or PHYS 106/6.0&lt;br&gt;• CHEM 112/6.0</td>
</tr>
<tr>
<td>Biochemistry (BCHM) Specialization, Major, Minor</td>
<td>• BIOL 102/3.0&lt;br&gt;• BIOL 103/3.0&lt;br&gt;• CHEM 112/6.0&lt;br&gt;• MATH 121/6.0&lt;br&gt;• PHYS 104/6.0 or PHYS 106/6.0 or PHYS 117/6.0</td>
</tr>
<tr>
<td>Biology (BIOL) Specialization, Major, Minor</td>
<td>• BIOL 102/3.0&lt;br&gt;• BIOL 103/3.0&lt;br&gt;• CHEM 112/6.0&lt;br&gt;• MATH 121/6.0</td>
</tr>
</tbody>
</table>

*Note: Although Physics is not required for the Minor Plan, it is recommended if you wish to keep your options open for a change to a Chemistry, Geology, Life Sciences or Physics Plan in the future.*
<table>
<thead>
<tr>
<th>Desired Plan</th>
<th>Recommended Courses</th>
<th>Note:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology &amp; Mathematics (BIMA)</td>
<td>• BIOL 102/3.0&lt;br&gt;• BIOL 103/3.0&lt;br&gt;• CHEM 112/6.0&lt;br&gt;• MATH 110/6.0 or MATH 111/6.0&lt;br&gt;• MATH 120/6.0 or MATH 121/6.0</td>
<td>It is highly recommended that you take:&lt;br&gt;• PHYS 104/6.0 or PHYS 106/6.0 or PHYS 117/6.0</td>
</tr>
<tr>
<td>Specialization</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biology &amp; Psychology (BIPS)</td>
<td>• BIOL 102/3.0&lt;br&gt;• BIOL 103/3.0&lt;br&gt;• CHEM 112/6.0&lt;br&gt;• PSYC 100/6.0</td>
<td>It is highly recommended that you take:&lt;br&gt;• PHYS 106/6.0 or PHYS 117/6.0&lt;br&gt;• MATH 121/6.0 or MATH 126/6.0 is also recommended if you wish to keep your options open to change your plan to one of: Biology, Biochemistry, Chemistry, Geology, Life Sciences or Physics Plan in the future.</td>
</tr>
<tr>
<td>Specialization</td>
<td></td>
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</tr>
<tr>
<td>Biotechnology (BTEC)</td>
<td>• BIOL 102/3.0&lt;br&gt;• BIOL 103/3.0&lt;br&gt;• CHEM 112/6.0&lt;br&gt;• MATH 121/6.0</td>
<td></td>
</tr>
<tr>
<td>Specialization</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biomedical Computing (BMCO)</td>
<td>• CISC 121/3.0 (Fall)&lt;br&gt;• CISC 124/3.0 (Winter)&lt;br&gt;• BIOL 102/3.0&lt;br&gt;• BIOL 103/3.0&lt;br&gt;• CHEM 112/6.0&lt;br&gt;• MATH 121/6.0&lt;br&gt;• CISC 102/3.0&lt;br&gt;• MATH 111/6.0 or MATH 112/3.0</td>
<td>Students without previous programming experience should replace CISC 121/124 with CISC 101 in the Fall Term and CISC 121 in the Winter Term then take CISC 124 in the Fall Term of second year.</td>
</tr>
<tr>
<td>Specialization</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chemistry (CHEM) Specialization,</td>
<td>• CHEM 112/6.0&lt;br&gt;• MATH 112/3.0 or MATH 111/6.0 or MATH 110/6.0&lt;br&gt;• MATH 121/6.0&lt;br&gt;• PHYS 104/6.0 or PHYS 106/6.0 or PHYS 117/6.0</td>
<td>The Algebra requirement (MATH 112 or MATH 111 or MATH 110) may be deferred until second year. MATH 112/3.0 or MATH 111/6.0 or MATH 110/6.0 is not required in the Minor Plans.</td>
</tr>
<tr>
<td>Major, Minor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Desired Plan</td>
<td>Recommended Courses</td>
<td></td>
</tr>
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<td>--------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
</tbody>
</table>
| Classical Studies (CLST) Specialization, Major, Medial, Minor | - CLST 102/3.0 and CLST 103/3.0  
  
  *Note: If you hold Grade 12 Latin or Greek or equivalent, you may be able to start at the second year level in the language.* |
| Cognitive Science (COGS) Specialization          | - COGS 100/3.0  
  - CISC 121/3.0 (Fall)  
  - CISC 124/3.0 (Winter)  
  - CISC 102/3.0  
  - MATH 111/6.0 or MATH 112/3.0  
  - 2 of LING 100/6.0 or PSYC 100/6.0 or (PHIL 111/6.0 or PHIL 115/6.0)  
  
  *Note: Students without previous programming experience should replace CISC 121/124 with CISC 101 in the Fall Term and CISC 121 in the Winter Term then take CISC 124 in the Fall Term of second year.* |
| Computing (COMP) Major, Minor                    | - CISC 121/3.0 (Fall)  
  - CISC 124/3.0 (Winter)  
  - CISC 102/3.0  
  - MATH 121/6.0  
  - MATH 111/6.0 or MATH 112/3.0  
  
  *Note: Students without previous programming experience should replace CISC 121/124 with CISC 101 in the Fall Term and CISC 121 in the Winter Term then take CISC 124 in the Fall Term of second year.*  
  
  *Note: Students intending to do a COMP Minor plan take one of CISC 102/3.0 or MATH 110/6.0. The remaining MATH courses indicated above are not required.* |
| Computing and the Creative Arts (COCA) Specialization | - CISC 121/3.0 (Fall)  
  - CISC 124/3.0 (Winter)  
  - CISC 102/3.0  
  - At least 6.0 units in one of the following creative arts disciplines:  
    - ARTH 120/6.0  
    - FILM 110/6.0  
    - DRAM 100/6.0  
    - MUSC 103/3.0 and MUSC 191/6.0  
  
  *Note: Students without previous programming experience should replace CISC 121/124 with CISC 101 in the Fall Term and CISC 121 in the Winter Term then take CISC 124 in the Fall Term of second year.*  
  
  *Note: MATH 121/6.0 is recommended if you wish to keep your options open to switch into another Computing Plan.* |
<table>
<thead>
<tr>
<th>Desired Plan</th>
<th>Recommended Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Computing and Mathematics (COMA) Specialization</strong></td>
<td>• CISC 121/3.0 (Fall)</td>
</tr>
<tr>
<td></td>
<td>• CISC 124/3.0 (Winter)</td>
</tr>
<tr>
<td></td>
<td>• MATH 120/6.0 or MATH 121/6.0</td>
</tr>
<tr>
<td></td>
<td>• MATH 110/6.0 or MATH 111/6.0</td>
</tr>
<tr>
<td><strong>Note:</strong> Students without previous programming experience should replace CISC 121/124 with CISC 101 in the Fall Term and CISC 121 in the Winter Term then take CISC 124 in the Fall Term of second year.</td>
<td></td>
</tr>
<tr>
<td><strong>Computer Science (CSCI) Specialization</strong></td>
<td>• CISC 121/3.0 (Fall)</td>
</tr>
<tr>
<td></td>
<td>• CISC 124/3.0 (Winter)</td>
</tr>
<tr>
<td></td>
<td>• CISC 102/3.0</td>
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<td></td>
<td>• MATH 121/6.0</td>
</tr>
<tr>
<td><strong>Note:</strong> Students without previous programming experience should replace CISC 121/124 with CISC 101 in the Fall Term and CISC 121 in the Winter Term then take CISC 124 in the Fall Term of second year.</td>
<td></td>
</tr>
<tr>
<td><strong>Drama (DRAM) Major, Medial, Minor</strong></td>
<td>• DRAM 100/6.0 or DRAM 181/6.0 or BISC 100/3.0 and BISC 101/3.0 (if studying at the Bader International Study Centre)</td>
</tr>
<tr>
<td><strong>Earth System Science (EGPY, Sub-discipline in Environmental Science) Specialization</strong></td>
<td>• BIOL 111/3.0 or BIOL 103/3.0</td>
</tr>
<tr>
<td></td>
<td>• CHEM 112/6.0</td>
</tr>
<tr>
<td></td>
<td>• GPHY 101/3.0</td>
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<tr>
<td></td>
<td>• GPHY 102/3.0</td>
</tr>
<tr>
<td></td>
<td>• GEOL 104/3.0</td>
</tr>
<tr>
<td><strong>Note:</strong> The initial requirements of this Plan leave no room for electives in first year. You may defer the Biology or Physics requirements to second year and fill the space with an elective(s) in first year.</td>
<td></td>
</tr>
<tr>
<td><strong>Economics (ECON) Major, Medial, Minor</strong></td>
<td>• ECON 110/6.0 or ECON 111/3.0 (if studying at the Bader International Study Centre)</td>
</tr>
<tr>
<td></td>
<td>• MATH 126/6.0 or MATH 121/6.0</td>
</tr>
<tr>
<td><strong>English Language &amp; Literature (ENGL) Major, Medial, Minor</strong></td>
<td>• ENGL 100/6.0</td>
</tr>
<tr>
<td><strong>Environmental Science (ENSC) Major, Minor</strong></td>
<td>• BIOL 103/3.0 or BIOL 111/3.0</td>
</tr>
<tr>
<td></td>
<td>• CHEM 112/6.0</td>
</tr>
<tr>
<td></td>
<td>• GPHY 101/3.0</td>
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<tr>
<td></td>
<td>• GPHY 102/3.0</td>
</tr>
<tr>
<td><strong>Note:</strong> Students without previous programming experience should replace CISC 121/124 with CISC 101 in the Fall Term and CISC 121 in the Winter Term then take CISC 124 in the Fall Term of second year.</td>
<td></td>
</tr>
</tbody>
</table>
### Desired Plan

<table>
<thead>
<tr>
<th>Environmental Biology (EBIO, Sub-discipline in Environmental Science) Specialization</th>
<th>Recommended Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>• BIOL 102/3.0</td>
<td></td>
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<tr>
<td>• BIOL 103/3.0</td>
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<tr>
<td>• CHEM 112/6.0</td>
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<tr>
<td>• GPHY 101/3.0</td>
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<tr>
<td>• GPHY 102/3.0</td>
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<tr>
<td>• GEOL 104/3.0</td>
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<tr>
<td>• MATH 111/6.0 or MATH 121/6.0</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Environmental Chemistry (ECHM, Sub-discipline in Environmental Science) Specialization</th>
<th>Recommended Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>• BIOL 111/3.0 or BIOL 103/3.0</td>
<td></td>
</tr>
<tr>
<td>• CHEM 112/6.0</td>
<td></td>
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<tr>
<td>• GPHY 101/3.0</td>
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<tr>
<td>• GPHY 102/3.0</td>
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<tr>
<td>• GEOL 104/3.0</td>
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<tr>
<td>• MATH 111/6.0 or MATH 121/6.0</td>
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<tr>
<td>• PHYS 104/6.0 or PHYS 106/6.0</td>
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</tbody>
</table>

*Note: The initial requirements of this Plan leave no room for electives at first year. You may defer Geography or Geology to second year.*

<table>
<thead>
<tr>
<th>Environmental Geology (EGEO, Sub-discipline in Environmental Science) Specialization</th>
<th>Recommended Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>• BIOL 103/3.0 or BIOL 111/3.0</td>
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<tr>
<td>• CHEM 112/6.0</td>
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<td>• GPHY 101/3.0</td>
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<td>• GPHY 102/3.0</td>
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<td>• GEOL 104/3.0</td>
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<td>• GEOL 107/3.0</td>
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<tr>
<td>• MATH 121/6.0</td>
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<tr>
<td>• PHYS 106/6.0 or PHYS 117/6.0</td>
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</tbody>
</table>

*Note: The initial requirements of this Plan leave no room for electives at first year. You may defer the Geography or Biology requirements to second year.*

<table>
<thead>
<tr>
<th>Environmental Life Science (ELSC, Sub-discipline in Environmental Science) Specialization</th>
<th>Recommended Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>• BIOL 102/3.0</td>
<td></td>
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<tr>
<td>• BIOL 103/3.0</td>
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<tr>
<td>• CHEM 112/6.0</td>
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<tr>
<td>• GPHY 102/3.0</td>
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<tr>
<td>• GEOL 104/3.0</td>
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<tr>
<td>• MATH 112/3.0, MATH 111/6.0 or MATH 121/6.0</td>
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<tr>
<td>• PHYS 106/6.0 or PHYS 117/6.0</td>
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</tbody>
</table>

*Note: If you are considering a Major in Life Sciences or Biology take MATH 121.*

*Note: There are actually only 3.0 units required in MATH at the 100 level or STAT at the 200-level or above. If you don’t want to take MATH 112, 111 or 121 you can wait and take a STAT 263 in year 2 or 3. All other MATH and STAT courses have prerequisites.*
<table>
<thead>
<tr>
<th>Desired Plan</th>
<th>Recommended Courses</th>
</tr>
</thead>
</table>
| **Environmental Toxicology (ETOX, Sub-discipline in Environmental Science) Specialization** | • BIOL 102/3.0  
• BIOL 103/3.0  
• CHEM 112/6.0  
• GPHY 101/3.0  
• GPHY 102/3.0  
• GEOL 104/3.0  
• MATH 111/6.0 or MATH 121/6.0  
*Note: If you are considering a Major in Life Sciences take MATH 121 and take one of PHYS 106/6.0 or PHYS 117/6.0. If you are considering a Major in Biology take MATH 121/6.0.* |
| **Environmental Studies (ENVS) Medial, Minor** | • BIOL 103/3.0 or BIOL 111/3.0  
• GPHY 101/3.0  
• GPHY 102/3.0 (Minor only needs 102)  
• GEOL 104/3.0 or GEOL 106/3.0 or GEOL 107/3.0  
*Note: For a Medial in Environmental Studies choose 3.0 units from Math or Statistics or Chemistry.* |
| **Film & Media (FILM) Major, Medial, Minor** | • FILM 110/6.0 or  
• FILM 104/3.0 and BISC 100/3.0 *(if studying at the Bader International Study Centre)*  
*Note: For a Medial in Environmental Studies choose 3.0 units from Math or Statistics or Chemistry.* |
| **French Studies (FREN) Major, Medial, Minor** | • FREN 150/6.0  
*Note: For a Medial in Environmental Studies choose 3.0 units from Math or Statistics or Chemistry.* |
| **Gender Studies (GNDs) Major, Medial, Minor** | • GNDS 120/3.0  
• GNDS 125/3.0 or  
• GNDS215/3.0 and BISC 101/3.0 *(if studying at the Bader International Study Centre)*  
*Note: For a Medial in Environmental Studies choose 3.0 units from Math or Statistics or Chemistry.* |
| **Geography (GPHY) (Arts) Major, Medial, Minor** | • GPHY 101/3.0 and GPHY 102/3.0 or  
• GPHY102/3.0 and BISC 100/3.0 *(if studying at the Bader International Study Centre)*  
*Note: For a Medial in Environmental Studies choose 3.0 units from Math or Statistics or Chemistry.* |
| **Geography (GPHY) (Science) Major, Minor** | • GPHY 101/3.0 and GPHY 102/3.0 or  
• GPHY102/3.0 and BISC 100/3.0 *(if studying at the Bader International Study Centre)*  
• 12.0 units (for Major Plan) or 6.0 units (for Minor Plan) from CHEM 112/6.0; (MATH 110/6.0 or 111/6.0); (MATH 121/6.0 or 126/6.0); (PHYS 104/6.0 or 106/6.0 or 117/6.0)  
*Note: Minor (Science) Plans do not require both CHEM and PHYS—choose* |
| **Geology (GEOL) Specialization, Major, Minor** | • GEOL 104/3.0  
• GEOL 107/3.0  
• CHEM 112/6.0  
• MATH 121/6.0  
• PHYS 106/6.0 or PHYS 117/6.0  
• For Specialization choose 6.0 from BIOL 102/3.0, BIOL 103/3.0, BIOL 110/3.0, BIOL 111/3.0; MATH 111/6.0; MATH 110/6.0; MATH 112/3.0  
*Note: Minor (Science) Plans do not require both CHEM and PHYS—choose* |
<table>
<thead>
<tr>
<th>Desired Plan</th>
<th>Recommended Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Desired Plan</strong></td>
<td><strong>Recommended Courses</strong></td>
</tr>
</tbody>
</table>
| **German Studies (GMST) Medial, Minor** | 6.0 from CHEM 112 or PHYS 106 or PHYS 117  
*Note: Minor (Arts) Plans Instead of CHEM and MATH and PHYS choose 6.0 from CHEM 112 or MATH 121 or PHYS 106 or PHYS 117*  
- GRMN 101/3.0 and GRMN 102/3.0 or  
- GRMN 201/3.0 and GRMN 202/3.0  
*Note: You will have the opportunity during the first two weeks of classes to change your registration from one course to the other if it turns out you are at the wrong level.* |
| **Global Development Studies (DEVS) Major, Medial, Minor** |  
- DEVS 100/6.0  
- 6.0 units in a language (for the Major Plan) or 3.0 units in a language (for the Medial Plan) |
| **Health Studies (HLTH) Major, Medial, Minor** |  
- HLTH 101/3.0  
- HLTH 102/3.0  
- PSYC 100/6.0 |
| **Hispanic Studies (HISP) Major, Medial, Minor** |  
- SPAN 111/3.0 and SPAN 112/3.0 or  
- SPAN 204/3.0 and SPAN 205/3.0  
*Note: You will have the opportunity during the first two weeks of classes to change your registration from one course to the other if it turns out you are at the wrong level.* |
| **History (HIST) Major, Medial, Minor** | Choose **ONE** of:  
- HIST 121/6.0 or  
- HIST 122/6.0 or  
- HIST 124/6.0 or  
- BISC 100/3.0 and BISC 101/3.0 (if studying at the Bader International Study Centre) |
| **Italian (ITLN) Minor** |  
- ITLN 111/3.0 and ITLN 112/3.0 or  
- ITLN 204/3.0 and ITLN 205/3.0  
*Note: You will have the opportunity during the first two weeks of classes to change your registration from one course to the other if it turns out you are at the wrong level.* |
| **Indigenous Studies Minor** |  
- No recommended first-year courses |
| **Jewish Studies (JWST) Minor** |  
- No recommended first-year courses |
| **Kinesiology (KINE) Specialization** |  
- BIOL 102/3.0  
- BIOL 103/3.0  
- HLTH 101/3.0  
- KNPE 125/3.0  
- KNPE 153/3.0  
- KNPE 167/3.0  
- PSYC 100/6.0 |
<table>
<thead>
<tr>
<th>Desired Plan</th>
<th>Recommended Courses</th>
</tr>
</thead>
</table>
| **Life Sciences (LISC)**  
  *Specialization, Major, Minor* | • BIOL 102/3.0  
  • BIOL 103/3.0  
  • CHEM 112/6.0  
  • MATH 120/6.0 or 121/6.0 (required for Major and Specialization **not** Minor)  
  • PHYS 106/6.0 or PHYS 117/6.0 (required for Major and Specialization **not** Minor)  
  *Note: You need to have completed at least 27.0 units by the end of Year 1 to be eligible for the Major or Specialization.*  
  *Note: Students wishing to take upper year PSYC courses should take PSYC 100* |
| **Linguistics (LING)**  
  *Major, Medial, Minor* | • LING 100/6.0 |
| **Mathematics (MATH)**  
  *ARTS: Major, Medial, Minor*  
  *SCIENCE: Major, Minor* | • MATH 110/6.0  
  • MATH 120/6.0  
  *Note: Students in a MATH Minor Plan (Arts or Science) may take MATH 111 instead of MATH 110 and MATH 121 instead of MATH 120.* |
| **Mathematical Physics (MAPH)**  
  *Specialization* | • MATH 110/6.0  
  • MATH 120/6.0  
  • PHYS 104/6.0 or PHYS 106/6.0 |
| **Medieval Studies (MDVL)**  
  *Minor* | • ENGL 100/6.0 or  
  • HIST 121/6.0 or HIST 122/6.0  
  *Note: You may also consider a First Year ARTH course* |
| **Music – BMUS**  
  *Specialization* | • MUSC 103/3.0  
  • MUSC 127/3.0  
  • MUSC 129/3.0 or MUSC 229/3.0  
  • MUSC 121/6.0  
  • MUSC 191/3.0  
  *Note: Students who meet higher standards of performing ability may audition in September for acceptance into the “double credit” Applied Study courses MUSC 120/6.0 and MUSC 125/6.0 in lieu of MUSC 121/6.0. If you audition successfully, you may change your registration at that time. In addition to their private lessons, students in these advanced courses perform a public recital at the end of first year.*  
  *• One of: MUSC 180/3.0; MUSC 181/3.0; MUSC 183/3.0; MUSC 185/3.0; MUSC 187/3.0; MUSC 188/3.0  
  (Music Education courses: choose the course related to an instrument which is not your primary performance instrument)*  
  *• One of: MUSC 160/1.5; MUSC 162/1.5; MUSC 164/1.5; MUSC 166/1.5; MUSC 178/1.5, MUTH 160/1.5  
  *Note: Over the course of your degree, you must take at least one year of choral ensemble (MUSC 160/1.5) and therefore it might be advisable to select this in first year.*
<table>
<thead>
<tr>
<th>Desired Plan</th>
<th>Recommended Courses</th>
</tr>
</thead>
</table>
| **Music (MUSC)**  
Major, Medial, Minor | To pursue a Major or Medial Plan in MUSC, in first year you should take:  
• MUSC 103/3.0  
• MUSC 191/6.0  
**Note:** Both MUSC 103/3.0 and MUSC 191/6.0 require that, as a prerequisite, you hold the Royal Conservatory of Music Advanced Rudiments with first class honours standing or equivalent. Students who do not hold the RCM Advanced Rudiments qualification or equivalent should take MUSC 104/3.0 in their first year.  
To pursue a Minor Plan in MUSC, in first year you should take:  
• One of MUSC 101/3.0, MUSC 102/3.0, MUSC 203/3.0, MUSC 204, or MUSC 205/3.0  
• One of MUSC 171/3.0, MUSC 289/3.0 or MUSC 103/3.0  
**Note:** MUSC 103, 203, 204, and 205 require knowledge of Music Rudiments. Students who do not read music should thus take MUSC 101, 102, 171, and/or 289 instead. |
| **Physical and Health Education (BPHEH)**  
Specialization |  
• HLTH 101/3.0  
• KNPE 125/3.0  
• KNPE 153/3.0  
• KNPE 167/3.0  
• PACT 100/3.0  
• PSYC 100/6.0 |
| **Philosophy (PHIL)**  
Major, Medial, Minor |  
• PHIL 111/6.0 or PHIL 115/6.0 |
| **Physics (PHYS)**  
Specialization, Major, Minor |  
• MATH 110/6.0 or MATH 111/6.0  
• MATH 120/6.0 or MATH 121/6.0  
• PHYS 104/6.0 or PHYS 106/6.0  
• CHEM 112/6.0 (for Specialization Physics Plan) |
| **Political Studies (POLS)**  
Major, Medial, Minor |  
• POLS 110/6.0 |
| **Psychology (PSYC) (Arts)**  
Major, Medial, Minor |  
• PSYC 100/6.0 |
| **Psychology (PSYC) (Science)**  
Major |  
• PSYC 100/6.0  
• 12.0 units from BIOL 102/3.0 and BIOL 103/3.0, CHEM 112/6.0, PHYS 104/6.0 or PHYS 106/6.0 or PHYS 117/6.0, CISC 121/3.0 and CISC 124/3.0, or any 100-level MATH  
**Note:** The 12.0 units of supporting science credits required for this Plan may also be taken after first year. |
| **Religious Studies (RELS)**  
Major, Medial, Minor |  
• RELS 131/6.0 or RELS 161/6.0 |
<table>
<thead>
<tr>
<th>Desired Plan</th>
<th>Recommended Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sociology (SOCY)</td>
<td>• SOCY 122/6.0 or</td>
</tr>
<tr>
<td>Major, Medial, Minor</td>
<td>• BISC 100/3.0 and BISC 101/3.0 <em>(If studying at the Bader International Centre)</em></td>
</tr>
<tr>
<td>Software Design (SODE) Specialization</td>
<td>• CISC 121/3.0 <em>(Fall)</em></td>
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<td></td>
<td>• CISC 124/3.0 <em>(Winter)</em></td>
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<td></td>
<td>• CISC 102/3.0</td>
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<td></td>
<td>• MATH 120/6.0 or MATH 121/6.0</td>
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<tr>
<td></td>
<td>• MATH 111/6.0 or MATH 112/3.0</td>
</tr>
<tr>
<td><em>Note: Students without previous programming experience should replace CISC 121/124 with CISC 101 in the Fall Term and CISC 121 in the Winter Term then take CISC 124 in the Fall Term of second year.</em></td>
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</tr>
<tr>
<td>Spanish and Latin American Studies (SLAS)</td>
<td>• SPAN 111/3.0 and SPAN 112/3.0</td>
</tr>
<tr>
<td>Minor</td>
<td>• SPAN 204/3.0 and SPAN 205/3.0</td>
</tr>
<tr>
<td><em>Note: You will have the opportunity during the first two weeks of classes to change your registration from one course to the other if it turns out you are at the wrong level.</em></td>
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<tr>
<td>Stage and Screen (STSC) Specialization</td>
<td>• DRAM 100/6.0</td>
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<td>• FILM 110/6.0 or</td>
</tr>
<tr>
<td></td>
<td>• BISC100/3.0 and BISC 101/3.0 <em>(if studying at the Bader International Study Centre)</em></td>
</tr>
<tr>
<td>Statistics (STAT)</td>
<td>• MATH 110/6.0</td>
</tr>
<tr>
<td>ARTS: Major, Medial, Minor</td>
<td>• MATH 120/6.0</td>
</tr>
<tr>
<td>SCIENCE: Major, Minor</td>
<td>*Note: Students interested in statistics should not take STAT 263/3.0.</td>
</tr>
<tr>
<td>World Languages (LANG) Minor</td>
<td>• At least 6.0 and up to 12.0 units in language courses</td>
</tr>
<tr>
<td>*Note: Any language offered at Queen’s, other than English, is acceptable.</td>
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<tr>
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<td><em>Note: To obtain a Minor in World Language Studies, you must study at least two languages over the course of your degree, and one language must be studied at the 300-level. Therefore, to successfully complete this Plan, you should consider choosing to study in first year one language in which you already have some experience.</em></td>
</tr>
</tbody>
</table>
First-year Mathematics, Physics & Computing:

MATHEMATICS

The Department of Mathematics and Statistics offers a number of first-year courses. Your choice of course depends on your background, interests, and what subject you may wish to study in upper years.

MATH 11#-Series: Linear Algebra

- **MATH 110/6.0**
  MATH 110/6.0 is an advanced course in linear algebra, primarily designed for those students who might take Mathematics or Statistics courses in second year. Students with an interest or strong background in mathematics are encouraged to take this course.
  Recommended prerequisite: At least one 4U mathematics course.

- **MATH 111/6.0**
  MATH 111/6.0 is a course in linear algebra, primarily designed for students who intend to pursue something other than mathematics or statistics. Students who are planning to pursue a Plan in Physics in upper years should take MATH 110/6.0 or this course. Students intending to pursue studies in Chemistry may wish to consider this course in lieu of MATH 112/3.0. Students who are undecided as to what Plan they will pursue in upper years at this time should choose this course.
  Recommended prerequisite: At least one 4U mathematics course.

- **MATH 112/3.0**
  MATH 112/3.0 is an introductory course in linear algebra. Students intending to pursue a Plan in Chemistry or Computing should take a full-year linear algebra course or this course. It may also be of particular interest to students in Economics, Geography, Political Studies, Psychology, or Sociology, as it will help prepare students for the second-year courses in statistics required in these Plans.
  Recommended prerequisite: At least one 4U mathematics course.
MATH 12#-Series: Calculus

- **MATH 120/6.0**
  MATH 120/6.0 is an advanced course in calculus, primarily designed for those students who might take mathematics or statistics courses in second year. Students with an interest or strong background in mathematics.
  Recommended prerequisite: MHF4U and MCV4U or 4U AFIC, or permission of the Department

- **MATH 121/6.0**
  MATH 121/6.0 is a course in calculus, primarily designed for students who intend to pursue a Plan in Biochemistry, Biology, Life Sciences, Chemistry, Geology or Environmental Science. Students who are undecided as to what Plan they will pursue in upper years and have taken calculus at the Grade 12 level should choose this course. Students intending to pursue a Plan in Economics may wish to consider this course instead of MATH 126/6.0 if they have taken calculus at the Grade 12 level.
  Recommended prerequisite: MHF4U and MCV4U or 4U AFIC, or permission of the Department

- **MATH 123/3.0 and MATH 124/3.0**
  These are a special pair of courses in Calculus, designed for students who hold advanced standing (IB, AP or GCSE-level) in differential calculus. The combination of the two is equivalent to MATH 121/6.0 for all academic purposes. Students who are eligible will receive transfer credit for MATH 123/3.0 and may register for MATH 124/3.0 (Integral Calculus) for the Winter Term. They will join the MATH 121/6.0 classroom in January and continue their integral calculus training.

- **MATH 126/6.0**
  MATH 126/6.0 is an introductory course in calculus, primarily designed for students in Arts who have not previously taken calculus at the Grade 12 level. Science students should not register in this course. Students who are planning to pursue a Plan in Economics should take MATH 121/6.0 or this course. It may also be of particular interest to students in Geography, Political Studies, Psychology, or Sociology, as it will help prepare students for the second-year courses in statistics required in these Plans.
  **NOTE** Primarily intended for students in the BAH program. Students in the BSCH, BCMMPH and BCOM programs should not enrol in this course.
PHYSICS

The Department of Physics offers a number of first-year courses. Your choice of course depends on your background, interests, and what subject you may wish to study in upper years.

PHYS ASTR and P-level

- **ASTR 101/3.0, ASTR 102/3.0 and PHYS P20/3.0**
  ASTR 101/3.0, ASTR 102/3.0 and PHYS P20/3.0 describe issues in Physics, Astronomy and some of the major figures of 20th century physics. They are intended primarily as electives for upper-year Arts or Science students. These courses may be used only towards a Minor (Arts) Plan in Physics, and not in any other Physics or Astrophysics Plan (except as an elective). Note that for students interested in pursuing a Plan in Astrophysics (e.g. Astronomy), they should take PHYS 104/6.0 in their first year.

PHYS 1## Series

- **PHYS 104/6.0**
  PHYS 104/6.0 is an advanced course in fundamental physics, primarily designed for those students who intend to pursue a Physics or Astrophysics Plan. Even if they are not intending to study Physics at an upper-year level, students with a strong interest or background in physics (particularly those planning to study Mathematics and Statistics, Chemistry, Geology or Computing) are encouraged to consider this course. Any student intending to pursue a Plan in Physics or Astrophysics should choose this course.
  Prerequisite: 4U Physics is required.

- **PHYS 106/6.0**
  PHYS 106/6.0 is a course in fundamental physics. Students who intend to pursue a Plan in Mathematics, Statistics, Chemistry, Computing, or Geology in upper-years should take this course along with MATH 120/6.0 or MATH 121/6.0. Students who are intending to study any of Biology, Biochemistry, Life Sciences, or Environmental Science and have a Grade 12 Physics and Math background, are encouraged to consider this course instead of PHYS 117/6.0. Students who are undecided as to what Plan they will pursue in upper years at this time should choose this course. Please note that Grade 12 Math and Physics are pre-requisites for this course.
  Prerequisite: 4U Physics is required.

- **PHYS 117/6.0**
  PHYS 117/6.0 is an introductory course in physics. Students who intend to pursue a Plan in Biology, Biochemistry, Life Sciences or Environmental Science in upper-years should take this course, or PHYS 106/6.0. Students who are undecided as to what Plan they will pursue in upper years at this time should choose PHYS 106/6.0.
  **Students without Grade 11 or 12U Physics must have Grade 12U Math to take this course, and must be prepared to work harder to keep up with the course work.**
  Prerequisite: 4U Physics is recommended.
The School of Computing offers a number of first-year courses. Your choice of course depends on your background, interests, and what subject you may wish to study in upper years. Note: All courses may not be offered each year.

**CISC P81/3.0**
CISC P81/3.0 is used as an elective course by upper-year students who are not currently, and have not previously, studied Computing.

**CISC 101/3.0**
CISC 101/3.0 introduces students to the elements of computer science. Any student who has been admitted to a Bachelor of Computing Program, or who may wish to pursue upper-year courses in computing at a later date, but who does not have any previous programming experience, should take this course. It is also a good elective choice for any student in Arts and Science. Also see CISC 121/3.0 and CISC 124/3.0.

**CISC 102/3.0**
This course is required for all degree Plans in the School of Computing except for Computing and Mathematics (COMA). It provides an introduction to mathematical discourse and proof methods. Students will also study sets, functions, sequences, and relations in addition to properties of the integers, equivalence relations, linear and partial orderings. This course meets the first half of the Linear Algebra requirements. Students are to take MATH 112/3.0 to complete the second and final half of the requirement. An alternative to MATH 112/3.0 is MATH 111/6.0 which will satisfy the requirement and provide 3.0 elective units. Students need to have taken or be registered in CISC 121/3.0 to be enrolled in this course.

**CISC 110/3.0**
CISC 110/3.0 is an introduction to programming concepts in the context of visual arts and/or music. This course assumes no previous programming experience. It is an alternative to taking CISC 101/3.0 for students who have been admitted to a Bachelor of Computing Program, or who may wish to pursue upper-year courses in computing at a later date, but who do not have any previous programming experience. It is also a good elective choice for any student in Arts and Science, particularly students who wish to pursue a discipline in one of the creative arts. This course is a recommended elective for students wishing to pursue Computing and the Creative Arts. Also see CISC 121/3.0 and CISC 124/3.0.

**CISC 121/3.0 and CISC 124/3.0**
CISC 121/3.0 and CISC 124/3.0 are the first year courses that introduce students to the study of Computing at the University level. Some previous programming experience is assumed in CISC 121/3.0, which is the prerequisite for CISC 124/3.0. They are also suitable electives for any Arts or Science student. Students who have no previous programming experience but who have been admitted to Computing or who would like take further courses in Computing at an upper-year level should take CISC 101/3.0 or CISC 110/3.0 in the Fall Term, then take CISC 121/3.0 in the Winter term and CISC 124/3.0 the following Fall term. See recommended pre-requisite on page 22.

REGISTRATION: CISC 121/3.0 assumes some programming experience (such as high-school level programming or CISC 101/3.0 or CISC 110/3.0). Note that CISC 121/3.0 is offered in both the Fall and Winter Terms, and is a prerequisite for CISC 124/3.0.
COURSES AVAILABLE to 1st-Year Students 2016-17

ARABIC (ARAB)
100: Intro to Arabic (Modern Standard) † [FY]
200: Intermediate Modern Standard Arabic † [FY]

ART HISTORY (ARTH)
120: Art in the West from Antiquity to Modernity [FY]

BIOLOGY (BIOL)
102: Intro Biology of Cells* [F]
103: Intro Biology of Organisms* [W]
111: Ecology and the Environment [W]

CHEMISTRY (CHEM)
112: General Chemistry* [FW]

CHINESE (CHIN)
100: Intro Mandarin Chinese I † [FY]
200: Intro Mandarin Chinese II † [FY]
300: Intro Mandarin Chinese III † [FY]

CLASSICAL STUDIES AND ARCHAEOLOGY (CLST)
102: Intro to Greek Civilization [F]
103: Intro to Roman Civilization [W]
129: Intro to Archaeology [FY]

CLASSICAL GREEK (GREK)
112: Intro Greek [FY]

COGNITIVE SCIENCE (COGS)
100: Intro to Cognitive Science [F]

COMPUTING (CISC)
101: Elements of Computing Science*** [F / W]
102: Discrete Mathematics for Computing*** [F / W]
110: Creative Computing*** [F]
121: Intro to Computing Science I*** [F / W]
124: Intro to Computing Science II*** [F / W]

DRAMA (DRAM)
100: Intro to the Theatre [FY]

ECONOMICS (ECON)
110: Principles of Economics [FY]
111: Intro Microeconomics [F]
112: Intro Macroeconomics [W]

ENGLISH (ENGL)
100: Intro to Literary Study ** [FY]

FILM AND MEDIA (FILM)
110: Film, Culture and Communication ** [FY]

FRENCH (FREN)
150: Français Intermédiaire † [FY]

GENDER STUDIES (GNDS)
120: Women, Gender, Difference [F]
125: Gender, Race and Popular culture [W]

GEOGRAPHY & PLANNING (GPHY)
101: Human Geography [F / W]
102: Earth System Science [W]

GEOLOGY (GEOL)
104: The Dynamic Earth [F / W]
107: History of Life [F]

GERMAN (GRMN)
101: Beginner’s German [F / W]
102: Beginner’s German I [W]

GLOBAL DEVELOPMENT STUDIES (DEVS)
100: Canada and the Third World ** [FY]

HEALTH STUDIES (HLTH)
101: Social Determinants of Health ** [F]
102: Physical Determinants of Health ** [W]

HEBREW (HEBR)
190: Introduction to Modern Hebrew [FY]

HISTORY (HIST)
121: Intellectual Origins of the Contemporary West [FY]
122: The Making of the Modern World [FY]
124: Canada in the World [FY]

Legend
† Placement test/audition required
*Priority given to first-year students in BSCH, BCMPH, BPHEH.
** Priority given to first year students in BAH, BFAH, BMUS.
*** Priority given to first year students in BCMPH
NOTE: these restrictions will be lifted at noon on July 18 for first year students.
[F] Class offered in Fall term only
[W] Class offered in Winter term only
[FY] Full-year class offered over Fall and Winter terms
[F / W] class offered in both fall and winter terms
ITALIAN (ITLN)
111: Beginning Italian I [F / W]

JAPANESE (JAPN)
100: Introductory Japanese I † [FY]
200: Introductory Japanese II † [FY]

LANGUAGES, LITERATURES & CULTURES (LLCU)
101: Beginning Language and Culture I [F]
(Mohawk I, Inuktitut I)
102: Beginning Language and Culture II [W]
(Mohawk II)

LATIN (LATN)
110: Intro Latin [FY]

LINGUISTICS (LING)
100: Intro to Linguistics ** [FY]

MATHEMATICS (MATH)
120: Differential and Integral Calculus [FY]
121: Differential and Integral Calculus [FY]
124: Differential and Integral Calculus II [W]
126: Differential and Integral Calculus ** [FY]
110: Linear Algebra [FY]
111: Linear Algebra [FY]
112: Linear Algebra [W]

MUSIC (NON-B.MUS. STUDENTS)
(MUSC) P52: Rudiments [F]
102: Western Music: Napoleon to 9/11 [W]
103: Music and Society [F]
171: Social History of Popular Music [F]
191: Theory and Analysis I [FY]
255: Electroacoustic Music Composition [FY]
160: Choral Ensemble (1.5) † [FY]
162: Symphony Orchestra (1.5) † [FY]
166: Jazz Ensemble (1.5) † [FY]
178: Wind Ensemble (1.5) † [FY]
124: Applied Music † [FY]

MUSC OPTION COURSES:
MUSC 120 & 125, 160, 162, 164, 166, 178

PHILOSOPHY (PHIL)
(Students should enrol in no more than 6.0 units)
111: Great Works of Philosophy [FY]
115: Fundamental Questions [FY]
151: Great Works of Philosophy [F / W]
153: The State and the Citizen [F / W]
157: Moral Issues [W]

PHYSICS (PHYS)
104: Fundamental Physics [FY]
106: General Physics [FY]
117: Intro Physics* [FY]

POLITICAL STUDIES (POLS)
110: Intro to Politics and Government [FY]

PORTUGUESE (PORT)
103: Beginning Portuguese and Culture I [F]
104: Beginning Portuguese and Culture II [W]

PSYCHOLOGY (PSYC)
100: Principles of Psychology [FY]

RELIGIOUS STUDIES (RELS)
131: World Religions/Religious Worlds [FY]
161: Contemporary Problems in Religion and Culture [FY]

SOCIOLOGY (SOCY)
122: Intro to Sociology [FY]

SPANISH (SPAN)
111: Beginning Spanish I [F / W]
112: Beginning Spanish II [W]

Students admitted to direct entry programs will be pre-enrolled in the following courses:
Bachelor of Music: MUSC103; 121; 127; 129; 191; 203
Kinesiology: BIOL102/103; HLTH101; KNPE125; 153; 167; PSYC100
Physical and Health Education: HLTH101; KNPE125; 153; 167; PSYC100; PACT100
Bachelor of Fine Art: ARTF127; 128: ARTH120

Electives
The courses listed below are used primarily as electives and do not lead to Honours degree plans:
ASTR101: Astronomy I: The Solar System
ASTR102: Astronomy II: Stars, Galaxies, and the Universe
BIOL110: Human Genetics and Evolution
CISC81: Computers: Applications and Implications
MICR121: Microbiology for Nursing Students
GEOL102: Gemstones: Their Art, History and Science
GEOL106: Environmental Geology and Natural Hazards
GPHY103: Water Resources
PHAR100: Introductory Pharmacology
POLS101: Contemporary Issues in Politics
LLCU110: Linguistic Diversity and Identity
LLCU111: Introduction to Cultures
HIST240-002: Issues in History: Introduction to Biblical Hebrew
ARAB 100/6.0  Introductory Arabic (Modern Standard)
Introduction to the basic structures of Modern Standard Arabic. This course gives intensive training equally in
listening, speaking, reading, and writing.
LEARNING HOURS   240 (72L;168P)
PREREQUISITE    Permission of the Instructor.

ARAB 200/6.0  Intermediate Modern Standard Arabic
This intensive intermediate-level course is designed to provide a review of the basic elements of Modern Standard
Arabic and continues the development of students’ communicative skills in reading, writing, listening and speaking
Arabic. It will offer an introduction to more complex syntactic and grammatical forms and structures, preparing
students for carrying on a simple conversation, reading an intermediate level text, and understanding basic
conversations.
LEARNING HOURS   240 (72L;168P)
PREREQUISITE    ARAB 100/6.0 or permission of the Instructor.

ARTF 101/3.0  Fundamentals of Drawing and Painting
A foundation course aimed at developing basic skills in drawing and painting, embracing a variety of subjects,
materials and techniques.
NOTE    Materials: estimated cost $250.
NOTE     Open only to students in Concurrent Education Program
LEARNING HOURS   144 (48Lb;96P)
RECOMMENDATION    ARTH 120/6.0. A survey course in Art History provides increased visual literacy at the studio
level. Previous experience in painting and drawing is highly recommended.
PREREQUISITE    Permission of the instructor.
EXCLUSION    No more than 1 course from ARTF 101/3.0; ARTF 105/6.0; ARTF 106/3.0; ARTF 127/6.0.
EXCLUSION    No more than 1 course from ARTF 101/3.0; ARTF 105/6.0; ARTF 106/3.0; ARTF 128/6.0.

ARTF 102/3.0  Fundamentals of Drawing and Sculpture
A foundation course in drawing and sculpture aimed at examining the visual, tactile and structural characteristics
of various materials in relation to 3 dimensional space.
NOTE    Materials: estimated cost $250.
NOTE     Open only to students in Concurrent Education Program
LEARNING HOURS   144 (48Lb;96P)
RECOMMENDATION    ARTH 120/6.0. A survey course in Art History provides increased visual literacy at the studio
level. Previous experience in studio art is highly recommended.
PREREQUISITE    ARTF 101/3.0 or permission of the instructor.
EXCLUSION    No more than 6.0 units from ARTF 102/3.0; ARTF 105/6.0; ARTF 127/6.0.
EXCLUSION    No more than 6.0 units from ARTF 102/3.0; ARTF 105/6.0; ARTF 128/6.0.

ARTF 127/6.0  Introductory Fine Art I
A foundation course in drawing and painting aimed at developing basic skills in artistic production. One class per
week will be devoted to learning safe procedures and technical skills in the wood-shop. There will be a half-day
WHMIS safety training workshop. Students must pass both the technical skills and the WHMIS training
components.
NOTE     Open only to students in a BFA Program.
NOTE    Materials: estimated cost $600 (includes technical skills fee of $25).
LEARNING HOURS 288 (144Lb;144P)
EXCLUSION No more than 6.0 units from ARTF 100/6.0; ARTF 127/6.0.
EXCLUSION No more than 1 course from ARTF 101/3.0; ARTF 105/6.0; ARTF 106/3.0; ARTF 127/6.0.
EXCLUSION No more than 6.0 units from ARTF 102/3.0; ARTF 110/6.0; ARTF 127/6.0.
ONE-WAY EXCLUSION May not be taken with or after: ARTF 125/6.0; ARTF 260/3.0; ARTF 265/6.0.

ARTF 128/6.0 Introductory Fine Art II
A continuation of ARTF 127/6.0, the two sections of this foundation-level course are in the areas of two-dimensional fundamentals and three-dimensional fundamentals. In the painting section, a variety of ideas concerning the organization of form and colour are introduced. In the three-dimensional fundamentals section, the visual, tactile and structural characteristics of a variety of materials are studied in relation to broad topics of three-dimensional construction.

NOTE Open only to students in a BFA Program.
NOTE Materials: estimated cost $600 (includes technical skills fee of $25).
LEARNING HOURS 288 (144Lb;144P)
PREREQUISITE A minimum grade of C- in ARTF 127/6.0 and a GPA of 1.60.
EXCLUSION No more than 1 course from ARTF 101/3.0; ARTF 105/6.0; ARTF 106/3.0; ARTF 128/6.0.
EXCLUSION No more than 6.0 units from ARTF 102/3.0; ARTF 110/6.0; ARTF 128/6.0.

ARTH 116/3.0 Art and Architecture in Britain from the Classical Period to c.1700
A chronological survey of painting, sculpture and architecture in western culture from Greece and Rome through to the early modern period. The art works will be studied at British galleries, museums and architectural monuments.

NOTE Offered only at the Bader International Study Centre, Herstmonceux. Students must participate in field trips.
EXCLUSION No more than 9.0 units from ARTH 116/3.0; ARTH 117/3.0; ARTH 120/6.0.

ARTH 117/3.0 Art and Architecture in Britain from c.1700 to the Present
A chronological survey of painting, sculpture and architecture in western culture from c.1700 to the present day. The art works will be studied at British galleries, museums and architectural monuments.

NOTE Offered only at the Bader International Study Centre, Herstmonceux. Students must participate in field trips.
EXCLUSION No more than 9.0 units from ARTH 116/3.0; ARTH 117/3.0; ARTH 120/6.0.

ARTH 120/6.0 Art in the West from Antiquity to Modernity
A survey of famous and lesser-known works of painting, sculpture, architecture, and other art forms from Antiquity, the Middle Ages, the Renaissance, the Baroque, and the Modern Age. Themes include politics, religion, mythology, gender roles, techniques, conservation and intersections with non-western cultures.

NOTE Also offered online. Consult Continuing and Distance Studies.
EXCLUSION No more than 9.0 units from ARTH 116/3.0; ARTH 117/3.0; ARTH 120/6.0.

ASTR 101/3.0 Astronomy I: The Solar System
A non-mathematical introduction to the science of astronomy for non-specialist students. Topics to be covered include the fundamentals of astronomy; and introduction to the tools and techniques of modern observational astronomy; the historical development of our understanding of the Earth, Moon, and Solar System; space exploration of Mars, Jupiter, and other planets; the nature of the Sun; and the origin and uniqueness of our Solar System.

NOTE Also offered online. Consult Continuing and Distance Studies. Learning Hours may vary.
LEARNING HOURS 120 (36L;24O;60P)
EQUIVALENCY PHYS P15/3.0.
**ASTR 102/3.0  Astronomy II: Stars, Galaxies, and the Universe**
This course, intended for non-specialist students, will provide an overview of astronomy beyond the Solar System. Topics will include: the formation, nature, and evolution of the stars; stellar deaths, including novae, supernovae, white dwarfs, neutron stars, pulsars, and black holes; the interstellar medium; the Milky Way Galaxy; normal and active galaxies and large scale structure in the universe; and modern ideas in cosmology and the early universe.

**NOTE**  Also offered online. Consult Continuing and Distance Studies. Learning Hours may vary.

**LEARNING HOURS**  120 (36L;24O;60P)

**PREREQUISITE**  ASTR 101/3.0; PHYS P15/3.0; or permission of the Department.

**EQUIVALENCY**  PHYS P16/3.0.

**BIOL 102/3.0  Introductory Biology of Cells**
An introduction to the basic themes and concepts of modern biology spanning organizational levels from molecules to cells in an evolutionary context.

**NOTE**  Also offered online. Consult Continuing and Distance Studies. Learning Hours may vary.

**NOTE**  Also offered at the Bader International Study Centre, Herstmonceux. Learning Hours may vary.

**LEARNING HOURS**  111 (24L;6Lb;9G;12O;60P)

**RECOMMENDATION**  4U Biology and Chemistry, or equivalent high school background, are highly recommended.

**BIOL 103/3.0  Introductory Biology of Organisms**
An introduction to the basic themes and concepts of modern biology spanning organizational levels from organisms to ecosystems in an evolutionary context.

**NOTE**  Also offered online. Consult Continuing and Distance Studies. Learning Hours may vary.

**NOTE**  Also offered at the Bader International Study Centre, Herstmonceux. Learning Hours may vary.

**LEARNING HOURS**  123 (36L;24Lb;24O;39P)

**RECOMMENDATION**  BIOL 102/3.0.

**BIOL 110/3.0  Human Genetics and Evolution**
Introductory genetics and evolutionary processes as they relate to the human condition - genetic diseases, medical techniques, inheritance and ethical issues such as cloning and genetically modified foods.

**NOTE**  Also offered online. Consult Continuing and Distance Studies. Learning Hours may vary.

**LEARNING HOURS**  118 (26L;10T;10G;36O;36P)

**ONE-WAY EXCLUSION**  May not be taken with or after BIOL 102/3.0; BIOL 103/3.0.

**BIOL 111/3.0  Ecology and the Environment**
Introduces the basic concepts of ecology and shows how they relate to environmental issues such as population growth, resource management, biodiversity, agriculture, air and water pollution, energy, and climate change, and to solutions leading to a sustainable environment.

**NOTE**  Also offered online. Consult Continuing and Distance Studies.

**LEARNING HOURS**  108 (36L;72P)

**ONE-WAY EXCLUSION**  May not be taken with or after BIOL 302/3.0; BIOL 303/3.0.

**CHEM 112/6.0  General Chemistry**
A survey of modern chemistry: molecular structure, bonding, phases of matter, thermodynamics, electrochemistry, equilibrium, kinetics, polymers, organic and biochemistry. Using information technology, laboratories and formulation of problem-solving strategies, students will develop an appreciation for the relevance of chemistry to the solution of modern-day societal challenges.

**NOTE**  Also offered at the Bader International Study Centre, Herstmonceux. Learning Hours may vary.

**LEARNING HOURS**  288 (48L;36Lb;36G;72O;96P)

**RECOMMENDATION**  4U Chemistry or equivalent.

**EXCLUSION**  No more than 6.0 units from CHEM 112/6.0 or (CHEM 113/3.0 and CHEM 114/3.0).
CHIN 100/6.0  Introductory Mandarin Chinese I
For students with no previous knowledge of Chinese. Students familiar with Cantonese or Mandarin will not be permitted to enrol. Introduction to the basic structural patterns and functional usage of the language including an emphasis on oral communication (both listening and speaking), reading and writing basic Chinese characters, as well as Chinese culture.
NOTE Students will have their level of competence assessed by the instructor during orientation week in September.
LEARNING HOURS 240 (72L;24T;144P)
PREREQUISITE Level 1 or (Level 2 or above and a GPA of 1.90).

CHIN 200/6.0  Introductory Mandarin Chinese II
For students with some knowledge of Cantonese who wish to acquire a command of Mandarin or for students with some knowledge of Mandarin who want to improve their Chinese language skills. Continued study of basic structural patterns of the language with the emphasis on oral communication, reading and writing using the simplified forms of Chinese characters.
NOTE Students will have their level of competence assessed by the instructor during orientation week in September.
LEARNING HOURS 240 (72L;24T;144P)
PREREQUISITE CHIN 100/6.0 and permission of the Department of Languages, Literatures and Cultures.

CHIN 300/6.0  Intermediate Mandarin Chinese
Continuing study of the functional usage of Mandarin Chinese with intensive training in listening, speaking, reading and writing using the simplified forms of Chinese characters.
NOTE Students will have their level of competence assessed by the instructor during orientation week in September.
LEARNING HOURS 240 (72L;168P)
PREREQUISITE CHIN 200/6.0 and permission of the Department of Languages, Literatures and Cultures.

CISC P81/3.0  Computers: Applications and Implications
Computers are changing our lives; this is a course for any student interested in learning about computing. It surveys many fields of computing science, presents case studies of fascinating examples of computers in use in diverse areas, from searching the world-wide web to medicine, and discusses the possibilities, limitations, and risks of computers.
LEARNING HOURS 120 (36L;84P)
ONE-WAY EXCLUSION May not be taken with or after CISC 124/3.0

CISC 101/3.0  Elements of Computing Science
Introduction to algorithms: their definition, design, coding, and execution on computers. Intended for students who have no programming experience. All or most assignment work will be completed during lab time.
LEARNING HOURS 120 (36L;36Lb;48P)
EXCLUSION No more than 3.0 units from APSC 142/3.0; CISC 101/3.0; CISC 110/3.0.
ONE-WAY EXCLUSION May not be taken with or after: CISC 121/3.0; CISC; SOFT at the 200-level and above.

CISC 102/3.0  Discrete Mathematics for Computing I
NOTE Also offered online. Consult Continuing and Distance Studies. Learning Hours may vary.
LEARNING HOURS 120 (36L;84P)
ONE-WAY EXCLUSION May not be taken with or after CISC 203/3.0.
CISC 110/3.0  Creative Computing
Introduction to fundamental programming concepts in the context of visual, interactive media. Students may develop applications in any domain (e.g., fine art, education, commerce, physical or social sciences) while learning about algorithms, program design, logic, program control flow, functions, testing, etc.
NOTE  No computing or art background required.
NOTE  Sufficient preparation for CISC 121/3.0. Students without programming experience should take CISC 110/3.0 (or CISC 101/3.0) before CISC 121/3.0. With permission of the instructor, students with programming experience may take this course concurrently with CISC 121/3.0.
LEARNING HOURS  120 (36L;84P)
EXCLUSION  No more than 3.0 units from APSC 142/3.0; CISC 101/3.0; CISC 110/3.0.
ONE-WAY EXCLUSION  May not be taken with or after CISC 121/3.0.

CISC 121/3.0  Introduction to Computing Science I
LEARNING HOURS  120 (36L;84P)
RECOMMENDATION  Some programming experience (such as high-school level programming or CISC 101/3.0 or CISC 110/3.0); see Introductory Courses in Departmental Notes.
COREQUISITE  CISC 102/3.0 or MATH 111/6.0 or MATH 121/6.0 or MATH 122/6.0 or MATH 110/6.0 or MATH 112/3.0 or MATH 120/6.0 or MATH 123/3.0 or MATH 124/3.0 or MATH 126/6.0.

CISC 124/3.0  Introduction to Computing Science II
Introduction to object-oriented design, architecture, and programming. Use of packages, class libraries, and interfaces. Encapsulation and representational abstraction. Inheritance. Polymorphic programming. Exception handling. Iterators. Introduction to a class design notation. Applications in various areas.
LEARNING HOURS  120 (36L;24Lb;60P)
PREREQUISITE  CISC 121/3.0.
COREQUISITE  CISC 102/3.0 or MATH 111/6.0 or MATH 121/6.0 or MATH 110/6.0 or MATH 112/3.0 or MATH 120/6.0 or MATH 123/3.0 or MATH 124/3.0 or MATH 126/6.0.

CLST 101/6.0  Introduction to Classical Literature
Ancient Greek and Roman literature in translation: Homer’s Iliad and Odyssey and Greek drama; Vergil’s Aeneid and selections from other Latin authors. Reference to ancient customs, history, mythology, thought.
LEARNING HOURS  252 (72L;180P)
EXCLUSION  No more than 6.0 units from CLST 101/6.0; CLST 102/3.0; CLST 103/3.0.

CLST 102/3.0  Introduction to Greek Civilization
An introduction to major themes in the development of Greek civilization using the evidence of literature, history and archaeology. Some attention will be given to those aspects of ancient cultural and intellectual growth that are of significance in the western tradition.
LEARNING HOURS  126 (36L;90P)
EXCLUSION  No more than 6.0 units from CLST 101/6.0; CLST 102/3.0; CLST 103/3.0.

CLST 103/3.0  Introduction to Roman Civilization
An introduction to major themes in the development of Roman civilization using the evidence of literature, history and archaeology. Some attention will be given to those aspects of ancient cultural and intellectual growth that are of significance in the western tradition.
LEARNING HOURS  126 (36L;90P)
EXCLUSION  No more than 6.0 units from CLST 101/6.0; CLST 102/3.0; CLST 103/3.0.
CLST 129/6.0  Introduction to Archaeology
Development of the discipline, methods of discovering and recovering materials through excavation, evaluation of such materials and reconstruction of original environments. Historic and prehistoric sites; contribution of archaeology to the knowledge of the past.
LEARNING HOURS    252 (72L;180P)

COGS 100/3.0  Introduction to Cognitive Science
An introduction to the historical and contemporary issues, and research findings of the core cognitive science disciplines including artificial intelligence, linguistics, philosophy, and psychology. The emphasis will be on the ways that the interactions among these disciplines leads to an enhanced understanding of the processes of intelligence and intelligent systems.
NOTE    Also offered as a distance course. Consult Continuing and Distance Studies.
LEARNING HOURS    120 (36L;84P)
ONE-WAY EXCLUSION    May not be taken with or after CISC 352/3.0; PSYC 200/6.0.

DEVS 100/6.0  Canada and the ‘Third World’
Introduces basic theoretical concepts of development studies, the history of global inequality, and short histories of alternative development strategies. Case studies of Canada’s ties to the so-called third world will include missionaries, military, business, and aid. Canadian colonialism over First Nations peoples will introduce basic issues in Aboriginal Studies.
NOTE    Also offered online. Consult Continuing and Distance Studies.
LEARNING HOURS    240 (48L;24T;24O;144P)

DRAM 100/6.0  Introduction to the Theatre
An exploration of stage production, acting, directing, playwriting, theatre history, dramatic analysis and criticism through use of plays chosen from various periods and representing different styles and genres. Opportunities given for practical projects.
LEARNING HOURS    228 (72L;36Lb;120P)
EXCLUSION    No more than 6.0 units from DRAM 100/6.0; DRAM 181/6.0.

ECON 110/6.0  Principles of Economics
An introduction to economic analysis of a modern mixed economy, including the roles of government. The microeconomics part of the course analyzes the behaviour of individual consumers and producers and the functioning of the market price system. The macroeconomics part examines the functioning of the economy as a whole, including the determination of national income, the price level, interest rates, the money supply, and the balance of payments.
LEARNING HOURS    240 (72L;24O;144P)
EXCLUSION    No more than 6.0 units from ECON 110/6.0; ECON 111/3.0; ECON 112/3.0.

ECON 111/3.0  Introductory Microeconomics
An introduction to microeconomic analysis of a modern mixed economy. The course analyzes the behaviour of individual consumers and producers, the determination of market prices for commodities and resources, and the role of government policy in the functioning of the market system. ECON 111/3.0 and ECON 112/3.0 are together equivalent to ECON 110/6.0.
NOTE    Also offered online. Consult Continuing and Distance Studies.
LEARNING HOURS    120 (36L;12O;72P)
EXCLUSION    No more than 6.0 units from ECON 110/6.0; ECON 111/3.0; ECON 112/3.0.
ECON 112/3.0  Introductory Macroeconomics
An introduction to macroeconomic analysis of the economy as a whole, including the determination of national income, the price level, interest rates, the money supply, and the balance of payments. The principles of monetary and fiscal policy are also examined. ECON 111/3.0 and ECON 112/3.0 are together equivalent to ECON 110/6.0.

NOTE  Also offered online. Consult Continuing and Distance Studies.
LEARNING HOURS  120 (36L;12O;72P)
EXCLUSION  No more than 6.0 units from ECON 110/6.0; ECON 111/3.0; ECON 112/3.0.

ENGL 100/6.0  Introduction to Literary Study
An introduction to literary study, with an emphasis on the formal analysis of a diverse range of poetry and prose. Specific content and approach vary from section to section, but all sections share the goals of developing sensitivity to genre, cultivating writing skills, and providing students with a set of literary terms and critical techniques as a foundation for further literary study.

NOTE  Enrolment preference is given to first-year students.
NOTE  Also offered online. Consult Continuing and Distance Studies. Learning Hours may vary.
LEARNING HOURS  240 (48L;24T;168P)

FILM 110/6.0  Film, Culture and Communication
Introduction to analysis of film, television, new media and other related forms of contemporary culture. Includes classical and contemporary Hollywood cinema, Canadian film and television, alternatives in international cinema, as well as recent developments on the internet, in gaming, and in social media.

LEARNING HOURS  216 (24L;24Lb;36T;36Pc;96P)

FREN 150/6.0  Français intermédiaire
Practice in reading, writing, grammar review, and literary analysis. For students wishing to complete a major, medial, or minor Plan in French.

NOTE  Placement test recommended prior to registration. For information go to: Http://www.queensu.ca/french/undergraduatestudents/placementtest.html.
NOTE  Also offered at the Bader International Study Centre, Herstmonceux. Learning Hours may vary.
LEARNING HOURS  216 (48L;24T;36O;108P)
EXCLUSION  No more than 6.0 units from FREN 150/6.0; FREN 100/6.0; FREN 101/3.0; FREN 102/3.0; FREN 110/6.0.
EQUIVALENCY  FREN 100/6.0.

GEOL 102/3.0  Gemstones: Their Art, History and Science
Gemstones have played an important role in society throughout history. The role of gemstones and other precious materials will be illustrated through the study of works of art and popular literature. The physical properties that make gems attractive are explained. Gemstone marketing and ethical considerations of mining methods will be explored.

LEARNING HOURS  120 (24L;12T;36O;48P)

GEOL 104/3.0  The Dynamic Earth
Introduction to the internal structure of the Earth and the processes that have shaped its surface. Global tectonics and continental movement, rock genesis, mountain building, glaciations and geological time. Laboratories include rock and mineral identification, and problem solving in historical geology, earthquakes, groundwater flow and coastal erosion.

LEARNING HOURS  108 (36L;12Lb;60P)
GEOL 106/3.0  Environmental Geology and Natural Hazards
The relationship between human-kind and our ever-changing planet, with a focus on natural geologic hazards (volcanic eruptions, earthquakes, landslides, tsunamis, mass movement, floods, extraterrestrial impacts, etc.), and environmental impacts which result from population and land-use expansion and our increased use of water, energy and mineral resources. A study of the sources and impact of pollution and global climate change. Public perception of and response to geological risk.
LEARNING HOURS  120 (36L;12O;72P)

GEOL 107/3.0  History of Life
The history of life, from its inception four billion years ago to the present day, focusing on the inter-relationship between organic evolution and global change. Coevolution of early life and the atmosphere; development of marine animals and their ecosystems; invasion of the land; dinosaurs and their world; mass extinctions; the Age of Mammals; and hominin evolution. Lectures plus three three-hour laboratories.
LEARNING HOURS  120 (36L;12Lb;12O;60P)

GNDS 120/3.0  Women, Gender, Difference
This course explores women, gender, and difference from feminist and anti-racist perspectives. It identifies the ways in which women’s activism, politics, and experiences intersect with other gendered identifications such as race, location, class, (dis)ability, and sexuality. Lessons and texts will introduce feminism, the body, colonialism, gender performance, and strategies of resistance.
NOTE  Also offered online. Consult Continuing and Distance Studies.
LEARNING HOURS  120 (12L;12T;12O;84P)

GNDS 125/3.0  Gender, Race and Popular Culture
Explores popular culture from feminist and anti-racist perspectives, with attention to sexuality, gender, race and nation in a variety of media.
NOTE  Also offered online. Consult Continuing and Distance Studies.
LEARNING HOURS  120 (24L;12T;84P)

GPHY 101/3.0  Human Geography
The fundamentals of human geography including the meanings of place, the impacts of globalization, multiculturalism, population change and movement, environmental history and politics, cultural geography, issues of uneven resource distribution, the role of colonialism in the modern shape of the world, agricultural geography, and urban geography.
NOTE  Field trip: estimated cost $30.
LEARNING HOURS  114 (18S;12T;48O;36P)
EXCLUSION  No more than 3.0 units from BISC 100/3.0; GPHY 101/3.0.

GPHY 102/3.0  Earth System Science
This course introduces the major concepts studied in Earth System Science. The fundamental processes and interrelationships between the atmosphere, oceans, biosphere and the lithosphere are investigated to serve as a basis for understanding natural systems, particularly at or near the Earth’s surface.
NOTE  Field trip: estimated cost $30.
LEARNING HOURS  120 (36L;12T;48P)
GPHY 104/3.0  Forests as a Global Resource
Forests are a critical global resource, containing significant biodiversity, regulating CO2 in the atmosphere, and providing cultural and economic benefits to society. Yet forests are threatened by over-harvesting, fire, development and environmental change. This course examines the ecology, distribution, and sustainability of the world’s forests.
NOTE    Field trips: estimated cost $30.
NOTE    This course is not a prerequisite for a GPHY Plan. Students interested in pursuing a GPHY Plan should take GPHY 101/3.0 and GPHY 102/3.0.
LEARNING HOURS    120 (36L;36O;48P)

GREK 112/6.0  Introductory Greek
Fundamentals of grammar, syntax and etymology, for students with no or little knowledge of Ancient Greek; provides sufficient background to read Plato, Euripides as well as the New Testament.
NOTE    Normally not open to students with 4U Greek.
LEARNING HOURS    276 (72L;24T;180P)

GRMN 101/3.0  Beginner's German I
This course is for students with no previous knowledge of German. The course concentrates on the basic language skills (listening, reading, writing and speaking) and introduces elements of German culture as recorded in its customs, history and literature.
LEARNING HOURS    120 (36L;120;72P)
ONE-WAY EXCLUSION    May not be taken with or after GRMN 102/3.0; GRMN 201/3.0; GRMN 202/3.0.

GRMN 102/3.0  Beginner's German II
This course is for students with a limited background in German. The course concentrates on the basic language skills (listening, reading, writing and speaking) and introduces elements of German culture as recorded in its customs, history and literature.
LEARNING HOURS    120 (36L;120;72P)
PREREQUISITE    A grade of C in GRMN 101/3.0 or permission of the Department of Languages, Literatures and Cultures.
ONE-WAY EXCLUSION    May not be taken with or after GRMN 201/3.0; GRMN 202/3.0.

HEBR 190/6.0  Introduction to Modern Hebrew
For students with no (or a minimal) background in Hebrew. Introduces elements of grammar and vocabulary of modern Hebrew.
PREREQUISITE    Permission of the instructor.

HIST 121/6.0  The Intellectual Origins of the Contemporary West
An introduction to European intellectual history from the ancient world to the present. Concentration is on the analysis of primary sources and ideas in their historical contexts. The course offers weekly introductory lectures followed by discussion of source material in small tutorial groups where the objective is maximum student participation.
LEARNING HOURS    240 (36L;36S;168P)

HIST 122/6.0  The Making of the Modern World
A thematic introduction to world history from prehistoric times to the present, with particular emphasis on the changing balance of power between regions of the globe and the contributions of the peoples of Africa, Asia, Oceania and the Americas to modernity.
LEARNING HOURS    240 (48L;24S;24O;144P)
HIST 124/6.0  Canada in the World
An introduction to major themes and events in the history of Canada placed in a North American and world context. Topics include relations between natives and newcomers, comparative colonialism, the emergence of nation-states and new social and cultural identities. Assignments emphasize analysis of historical texts and development of research and writing skills.
LEARNING HOURS  240 (36L;36S;24O;144P)
EXCLUSION  No more than 6.0 units from HIST 124/6.0; HIST 278/3.0, HIST 279/3.0.

HIST 240/6.0  Issues in History: Introduction to Biblical Hebrew
The introductory biblical Hebrew course has two purposes: to introduce students to the language of Biblical Hebrew as a medium for understanding the biblical text, and to enable students to read Biblical Hebrew prose with the aid of a dictionary. No prior knowledge of Hebrew is assumed.
By the end of the course, students should possess the following types of knowledge and skills:
- Basic knowledge of Biblical Hebrew grammar and vocabulary.
- The ability to read Genesis 1–4; 6–9 in Hebrew.
- The ability to read many parts of a standard Jewish prayerbook (Siddur) with the aid of dictionary.
In the Fall semester, a semi-inductive method is used to learn the fundamentals of Biblical Hebrew. By the end of the first semester, the class will have read Genesis 1 in Hebrew. In the Winter semester, the focus will be on consolidation of language skills through reading most of Genesis 2–4, 6–9 in Hebrew.
NOTE: This second year course is available to first year students.
LEARNING HOURS  240 (36L;36S;168P)

HLTH 101/3.0  Social Determinants of Health
This course introduces students to basic concepts in public, population and global health, and introduces social determinants of health, such as poverty, income inequality, and racism, in Canadian and global contexts.
NOTE  Also offered online. Consult Continuing and Distance Studies. Learning Hours may vary.
LEARNING HOURS  117 (12L;9T;24O;72P)

HLTH 102/3.0  Physical Determinants of Health
This course provides an introduction to a wide variety of factors which could affect a person's physical health.
NOTE  Not available to students in a PHED or KINE Plan.
LEARNING HOURS  108 (36L;72P)
ONE-WAY EXCLUSION  May not be taken with or after 12.0 units in KNPE (formerly PPHE; PHED; KINE).

ITLN 111/3.0  Beginning Italian I
Offers a basic level of Italian understanding, speaking, reading and writing for students with no knowledge of Italian whatsoever.
NOTE  Also offered through the Venice Term Abroad Program. Learning Hours may vary.
LEARNING HOURS  120 (36L;84P)
ONE WAY EXCLUSION  May not be taken with or after ITLN 204/3.0; ITLN 205/3.0.
EQUIVALENCY  ITLN P10/3.0.

ITLN 112/3.0  Beginning Italian II
The continuation of ITLN 112/3.0. Also for students who have some knowledge of Italian but have not completed 4U Italian or equivalent. For these students an assessment interview with the instructor is required before registration. Contact the Department of Languages, Literatures and Cultures for details.
LEARNING HOURS  120 (36L;84P)
PREREQUISITE  A grade of C in ITLN 111/3.0 or ITLN P10/3.0.
EXCLUSION  No more than 6.0 units from ITLN 111/3.0; ITLN 112/3.0; ITLN P10/3.0.
ONE WAY EXCLUSION  May not be taken with or after ITLN 204/3.0; ITLN 205/3.0.
JAPN 100/6.0  Introductory Japanese I
For students without any previous knowledge of Japanese. Introduction to the basic structural patterns of the language and intensive training in listening, speaking, reading, and writing. Extensive use of audio-visual materials. Students are expected to study individually on a regular basis with the aid of an audio tape in addition to the four hours of classroom work per week.
NOTE Students will have their level of competence assessed by the Department of Languages, Literatures and Cultures in September.
NOTE Students with previous knowledge of the language or who have studied Japanese will not be permitted to enrol.
PREREQUISITE Level 1 or (Level 2 and a GPA of 1.90).

JAPN 200/6.0  Introductory Japanese II
Continued study of the structural patterns of the language, with intensive training in listening, speaking, reading, and writing. Extensive use of audio-visual materials. Students are expected to study individually on a regular basis with the aid of an audio tape in addition to the four hours of classroom work per week.
NOTE Students with previous study background must take a placement test during orientation week.
PREREQUISITE A grade of C in JAPN 100/6.0 or permission of the Department of Languages, Literatures and Cultures.

KNPE 125/3.0  Introduction to Human Physiology
This course provides an introduction to human physiology from the cellular to the systemic level with special emphasis on the systems that adapt to exercise stress. The following areas will be covered: the cell, nervous system, skeletal muscle system, respiratory system, cardiovascular system, neuroendocrine system, and renal system.
LEARNING HOURS 108 (36L;72P)
PREREQUISITE Level 1 or above in a PHED, KINE or HLTH Plan.
EXCLUSION No more than 1 course from IDis 150/6.0; KNPE 125/3.0; KNPE 225/3.0; PHGY 210/6.0; PHGY 214/6.0; PHGY 212/6.0.

KNPE 153/3.0  Introductory Biomechanics
This course will present the fundamentals of biomechanics which includes an understanding of joint structure and function, forces and moments, tools used to record motion and use of these tools for description of motion and skill evaluation.
LEARNING HOURS 108 (36L;72P)
PREREQUISITE Level 1 or above in a PHED or KINE Plan.

KNPE 167/3.0  Socio-Cultural Dimensions of Sport and Physical Activity
An introduction to sociological thinking about sport and physical activity. Among the topics to be discussed are: an exploration of what constitutes sport and under what conditions; how social relations of class, race, gender, and sexuality shape sport experiences; the business of sport; and the relationship between the media and sport.
LEARNING HOURS 108 (24L;12T;72P)
PREREQUISITE Level 1 or above in a PHED or KINE Plan.

LATN 110/6.0  Introductory Latin
Fundamentals of grammar, syntax and etymology for students with no or little knowledge of Latin; provides sufficient background to read Latin prose and poetry.
NOTE Normally not open to students with 4U Latin.
LEARNING HOURS 276 (72L;24T;180P)
LING 100/6.0  Introduction to Linguistics
This course provides an introduction to the linguistic study of language. Topics covered include phonetics, phonology, morphology, and syntax. The course focuses on universal characteristics of language and draws on examples from a variety of languages.
LEARNING HOURS  240 (72L;24T;144P)

LLCU 110/3.0  Linguistic Diversity and Identity
This course explores the diversity of human languages, and the nature of linguistic identity across and within speech communities from a linguistics perspective. Topics that will be covered include: language families; linguistic typology; writing systems; language endangerment and revitalization; and situations of language contact, bilingualism, and sociolinguistic variation.
LEARNING HOURS  120 (36L;84P)

LLCU 111/3.0  Introduction to Cultures
This course offers an overview of the theoretical framework behind the study of intercultural communication and proposes practical applications of these theories, including in-class guest speakers and a 4-session workshop on Intercultural Competence by the Queen’s University International Centre (QUIC). Students will obtain a Certificate by QUIC.
LEARNING HOURS  120 (36L;12O;72P)

MATH 110/6.0  Linear Algebra
For students intending a medial or major concentration in Mathematics or Statistics. Provides a thorough introduction to linear algebra up to and including eigenvalues and eigenvectors.
LEARNING HOURS  264 (72L;24T;168P)
RECOMMENDATION  At least one 4U mathematics course.
EXCLUSION    No more than 1 course from MATH 110/6.0; MATH 111/6.0; MATH 112/3.0.

MATH 111/6.0  Linear Algebra
An introduction to matrices and linear algebra. Emphasis on applications to biological and economic systems and to computer applications. Topics covered will include systems of equations, eigenvalues, recursions, orthogonality, regression analysis, and geometric transformations.
LEARNING HOURS  240 (72L;168P)
RECOMMENDATION  At least one 4U mathematics course.
EXCLUSION    No more than 1 course from MATH 110/6.0; MATH 111/6.0; MATH 112/3.0.

MATH 112/3.0  Introduction to Linear Algebra
A brief introduction to matrix algebra, linear algebra, and applications. Topics include systems of linear equations, matrix algebra, determinants, the vector spaces R^n and their subspaces, bases, co-ordinates, orthogonalization, linear transformations, eigenvectors, diagonalization of symmetric matrices, quadratic forms.
LEARNING HOURS  120 (36L;84P)
RECOMMENDATION  At least one 4U mathematics course.
EXCLUSION    No more than 1 course from MATH 110/6.0; MATH 111/6.0; MATH 112/3.0.

MATH 120/6.0  Differential and Integral Calculus
A thorough discussion of calculus, including limits, continuity, differentiation, integration, multivariable differential calculus, and sequences and series.
NOTE    For students intending to pursue a medial or major plan in Mathematics or Statistics or Physics.
LEARNING HOURS  288 (72L;24T;192P)
RECOMMENDATION  MHF4U and MCV4U or 4U AFIC, or permission of the Department.
EXCLUSION    No more than 6.0 units from MATH 120/6.0; MATH 121/6.0; MATH 122/6.0; MATH 123/3.0; MATH 124/3.0; MATH 126/6.0.
MATH 121/6.0  Differential and Integral Calculus
Differentiation and integration with applications to biology, physics, chemistry, economics, and social sciences; differential equations; multivariable differential calculus.
NOTE For students intending to pursue a medial or major plan in a subject other than Mathematics or Statistics.
NOTE Also offered online. Consult Continuing and Distance Studies.
NOTE Also offered at the Bader International Study Centre.
LEARNING HOURS 262 (48L;11G;72O)
RECOMMENDATION MHF4U and MCV4U or equivalent, or 4U AFIC, or MATH P06/3.0, or permission of the Department.
EXCLUSION No more than 6.0 units from MATH 120/6.0; MATH 121/6.0; MATH 122/6.0; MATH 123/3.0; MATH 124/3.0; MATH 126/6.0.
EQUIVALENCY MATH 122/6.0

MATH 123/3.0  Differential and Integral Calculus I
Differentiation and integration of elementary functions, with applications to physical and social sciences. Topics include limits, related rates, Taylor polynomials, and introductory techniques and applications of integration.
NOTE Not intended for students pursuing a MATH or STAT plan.
PREREQUISITE Permission of the Department.
EXCLUSION No more than 6.0 units from MATH 120/6.0; MATH 121/6.0; MATH 122/6.0; MATH 123/3.0; MATH 124/3.0; MATH 126/6.0.

MATH 124/3.0  Differential and Integral Calculus II
Topics include techniques of integration, differential equations, and multivariable differential calculus.
NOTE For students who have credit for a one-term course in calculus. Topics covered are the same as those in the Winter term of MATH 121/6.0.
LEARNING HOURS 126 (36L;12T;78P)
PREREQUISITE MATH 123/3.0 or permission of the Department.
EXCLUSION No more than 6.0 units from MATH 120/6.0; MATH 121/6.0; MATH 122/6.0; MATH 123/3.0; MATH 124/3.0; MATH 126/6.0.

MATH 126/6.0  Differential and Integral Calculus
Differentiation and integration of the elementary functions, with applications to the social sciences and economics; Taylor polynomials; multivariable differential calculus.
NOTE Primarily intended for students in the BAH program. Students in the BSCH, BCMPH and BCOM programs should not enrol in this course.
LEARNING HOURS 240 (72L;24T;144P)
EXCLUSION No more than 6.0 units from MATH 120/6.0; MATH 121/6.0; MATH 122/6.0; MATH 123/3.0; MATH 124/3.0; MATH 126/6.0.

MICR 121/3.0  Microbiology for Nursing Students
This course provides the student with a foundation in the subdisciplines of bacteriology, virology, parasitology, and immunology. The course is designed to examine common infectious diseases through a body-systems approach. Laboratory and tutorial sessions emphasize diagnostic microbiology.
PREREQUISITE BCHM 102/3.0.
ONE-WAY EXCLUSION May not be taken with or after MICR at the 200-level or above.
MUSC 101/3.0  Western Music: Early Christianity to J.S. Bach
The history of Western art music from the Middle Ages to 1750. The course focuses on musical styles, genres, and composers, as well as historical and social contextual considerations.
NOTE    Students registered in a MUSC Plan (other than the MUSC Minor/General) should not register in this course.
LEARNING HOURS    120 (36L;12O;72P)
EXCLUSION    No more than 3.0 units from MUSC 101/3.0; MUSC 204/3.0.

MUSC 102/3.0  Western Music: Napoleon to 9/11
The history of Western art music from 1750 to the present. The course focuses on musical styles, genres, and composers, as well as historical and social contextual considerations.
NOTE    Students registered in a MUSC Plan (other than the MUSC Minor/General) should not register in this course.
LEARNING HOURS    120 (36L;12O;72P)
EXCLUSION    No more than 3.0 units from MUSC 102/3.0; MUSC 203/3.0.

MUSC 103/3.0  Music and Society
An introductory examination of the fundamental place of music in human society through a broad survey of music systems from around the world, as well as foundations in the critical listening, research, and writing skills used in music scholarship.
NOTE    Students holding First-Class Honours standing in the Royal Conservatory Advanced Rudiments may enroll in the course with permission of the School.
LEARNING HOURS    118 (36L;12O;70P)
PREREQUISITE    A grade of A- in MUSC 104/3.0 or MUSC P52/3.0, or permission of the School.
COREQUISITE    MUSC 191/6.0.

MUSC 104/3.0  Introduction to Music Fundamentals
An introduction to musical notation, ear training, theory and analysis.
NOTE    Students who hold Royal Conservatory Advanced Rudiments or higher should consult with the School for appropriate course placement. May not be taken for credit by students in the B.Mus. Plan.
LEARNING HOURS    123 (36L;3G;36O;48P)
EXCLUSION    No more than one course from MUSC 104/3.0; MUSC P06/0.0; MUSC P52/3.0.

MUSC 114/3.0  Introduction to Teaching Music to Children
Hands-on, blended approach to the theory and practice of teaching and engaging with children through music. Students will be introduced to concepts through educational activities and will learn to identify and describe musical characteristics heard in a variety of repertoire as well as perform short pieces appropriate for novice performers.
NOTE    May not be taken for credit by students in the B.Mus. Plan.
LEARNING HOURS    120 (18L;18lb;24O;60P)
RECOMMENDATION    MUSC 104/3.0 or MUSC P52/3.0 is recommended.

MUSC 120/6.0  Applied Study I (Performance)
A first year study of the student’s applied subject (instrument or voice) in the performance concentration.
NOTE    Open only to students who have demonstrated a considerably higher level of performance ability than the minimum required for B.Mus. admission.
PREREQUISITE    Permission of the School.
COREQUISITE    MUSC 125/6.0.
EXCLUSION    No more than 6.0 units from MUSC 120/6.0; MUSC 121/6.0.
MUSC 121/6.0  Applied Study I
The first year of study of the student’s chief practical subject (instrument or voice).
NOTE    Accompanist fee - wind, brass, string, and voice students. Estimated cost $180.
EXCLUSION  No more than 6.0 units from MUSC 120/6.0; MUSC 121/6.0.
EXCLUSION  No more than 6.0 units from MUSC 121/6.0; MUSC 125/6.0.

MUSC 124/6.0  Applied Music
Private instrumental or vocal instruction for non-B.Mus. students. Auditions required.
NOTE    Accompanist fee - wind, brass, string, and voice students. Estimated cost $180.
RECOMENDATION  At least i) Royal Conservatory Grade IX (or equivalent) for pianists; or ii) Grade VIII piano and Grade VIII organ (or equivalent) for organists; or iii) Grade VIII (or equivalent) for all other instrumentalists and vocalists;
PREREQUISITE    Permission of the School.

MUSC 125/6.0  Applied Study I (Performance Recital)
Students will perform in a public recital in accordance with the guidelines established by the School of Music.
NOTE    Accompanist fee - wind, brass, string, and voice students. Estimated cost $180.
COREQUISITE    MUSC 120/6.0.
EXCLUSION  No more than 6.0 units from MUSC 121/6.0; MUSC 125/6.0.

MUSC 127/3.0  Ear Training and Sight Singing I
Training in sight reading and dictation.

MUSC 129/3.0  Keyboard Skills
A fundamental keyboard skills course designed for non-keyboard majors.
NOTE    Course content will support and coordinate with the traditional diatonic harmonic material covered in MUSC 191 but will also include other styles. Successful completion of the course will require a working fluency at the keyboard in sight-reading, melodic and harmonic analysis as well as transcription. Activities will include harmonization, transposition and improvisation.
LEARNING HOURS   120 (24Lb;96P)
RECOMMENDATION    MUSC 191/6.0.
PREREQUISITE    Registration in the B.Mus. Plan, or registration in the BAH Music Major or BAH Music Medial Plan and permission of the School of Music.
EXCLUSION  No more than 3.0 units from; MUSC 129/3.0; MUSC 128/3.0.

MUSC 153/6.0  Composition Seminar
A study of composition with an emphasis on traditional and 20th-century techniques.
NOTE    Students holding First-Class Honours standing in the Royal Conservatory Grade II Rudiments may enroll in the course with permission of the School.
LEARNING HOURS   246 (48L;6I;192P)
COREQUISITE    MUSC 191/6.0.

MUSC 160/1.5  Choral Ensemble
Large group choral ensemble experience for mixed voices. Course includes weekly rehearsals of a wide variety of repertoire, and a minimum of one concert per term for all students. Credit attained only with regular attendance, active participation, and ample preparation.
NOTE    Placement is made at the discretion of the School of Music, after audition.
LEARNING HOURS   168 (72Pc;96P)
PREREQUISITE    Permission of the School upon audition.
MUSC 162/1.5  Symphony Orchestra
Large ensemble for qualified players of orchestral instruments. Course includes weekly rehearsals of a wide variety of repertoire, and a minimum of one concert per term for all students. Credit attained only with regular attendance, active participation, and ample preparation.
NOTE    Placement is made at the discretion of the School of Music, after audition.
LEARNING HOURS    168 (72Pc;96P)
PREREQUISITE    Permission of the School upon audition.

MUSC 164/1.5  Polyhymnia
Performance experience for experienced choral singers in a small choir of 20-30 voices. Course includes weekly rehearsals of a wide variety of repertoire, and a minimum of one concert per term for all students.
LEARNING HOURS    168 (72Pc;96P)
PREREQUISITE    Permission of the School upon audition.

MUSC 165/1.5  Brass Choir
Ensemble experience for qualified brass performers. Course includes weekly rehearsals and a minimum of one concert per term for all students. Credit attained only with regular attendance, active participation, and ample preparation.
NOTE    Placement is made at the discretion of the School of Music, after audition.
LEARNING HOURS    168 (72Pc;96P)
PREREQUISITE    Registration in a B.Mus. Program, or permission of the School upon audition.

MUSC 166/1.5  Jazz Ensemble
An ensemble devoted to the performance of Big Band music. Ability to improvise in a jazz idiom preferred but not essential. Course includes weekly rehearsals and a minimum of one concert per term for all students. Credit attained only with regular attendance, active participation, and ample preparation.
NOTE    Placement is made at the discretion of the School of Music, after audition.
LEARNING HOURS    168 (72Pc;96P)
PREREQUISITE    Permission of the School upon audition.

MUSC 171/3.0  Social History of Popular Music
A survey of important trends in 20th century Western popular music. Topics include genres, individual artists and groups, record labels and stylistic trends, and sociological issues.
LEARNING HOURS    120 (36L;84P)

MUSC 178/1.5  Wind Ensemble
Ensemble experience for qualified players of wind and percussion instruments. Course includes weekly rehearsals and a minimum of one concert per term for all students. Credit attained only with regular attendance, active participation, and ample preparation.
NOTE    Placement is made at the discretion of the School of Music, after audition.
LEARNING HOURS    168 (72Pc;96P)
PREREQUISITE    Permission of the School upon audition.

MUSC 180/3.0  Vocal Techniques and Methods
An introduction to the study of the singing voice through class instruction. Fundamental techniques that can be used in a teaching situation will be emphasized. Includes the study of the changing voice (male and female), breathing techniques, vowel formations, warm-ups, method books and teaching techniques.
NOTE    Enrolment is limited to students in a MUSC Plan or the B.Mus. Program.
EXCLUSION    No more than 6.0 units from MUSC 180-189/3.0 (BMUS excepted).
MUSC 181/3.0  Woodwind Techniques and Methods I
An introduction to the study of woodwind instruments through class instruction on selected instruments. Fundamental playing techniques and diagnostics will be emphasized. Includes the study of ranges, fingerings, transpositions, basic instrument maintenance, method books and teaching techniques. Rental instruments available.

NOTE Instrumental rental fee of $75 plus HST per term or $15 plus HST per term.
NOTE Enrolment is limited to students in a MUSC Plan or the B.Mus. Program.
EXCLUSION No more than 6.0 units from MUSC 180-189/3.0 (BMUS excepted).

MUSC 183/3.0  Brass Techniques and Methods I
An introduction to the study of brass instruments through class instruction on trumpet, trombone, and euphonium. Fundamental playing techniques and diagnostics will be emphasized. Includes the study of ranges, fingerings, transpositions, basic instrument maintenance, method books and teaching techniques. Rental instruments available.

NOTE Instrumental rental fee of $75 plus HST per term or $15 plus HST per term.
NOTE Enrolment is limited to students in a MUSC Plan or the B.Mus. Program.
EXCLUSION No more than 6.0 units from MUSC 180-189/3.0 (BMUS excepted).

MUSC 185/3.0  String Techniques and Methods I
An introduction to the orchestral strings through class instruction. Fundamental playing techniques will be emphasized. Includes the study of ranges, fingerings, bowings, transpositions, tunings, basic instrument maintenance, method books and teaching techniques. Rental instruments available.

NOTE Instrumental rental fee of $75 plus HST per term or $15 plus HST per term.
NOTE Enrolment is limited to students in a MUSC Plan or the B.Mus. Program.
EXCLUSION No more than 6.0 units from MUSC 180-189/3.0 (BMUS excepted).

MUSC 187/3.0  Percussion Techniques and Methods I
An introduction to playing techniques, management of the percussion section, notation, and performance practice on band, orchestral and keyboard percussion instruments. Includes the study of ranges, transpositions, basic instrument maintenance, method books and teaching techniques. Rental instruments available.

NOTE Enrolment is limited to students in a MUSC Plan or the B.Mus. Program.
EXCLUSION No more than 6.0 units from MUSC 180-189/3.0 (BMUS excepted).

MUSC 188/3.0  Guitar Techniques and Methods
An introduction to the guitar through class instruction. Fundamental note-playing and chording techniques to accompany singing will be emphasized. Includes the study of ranges, fingerings, transpositions, basic instrument maintenance, method books and teaching techniques. Students must provide their own instruments.

NOTE Enrolment is limited to students in a MUSC Plan or the B.Mus. Program.
EXCLUSION No more than 6.0 units from MUSC 180-189/3.0 (BMUS excepted).

MUSC 189/3.0  Topics in Techniques and Methods of World Music
Group instruction in the basic techniques and methods of a selected World Music and their application to teaching.

LEARNING HOURS 114 (36L;78P)

MUSC 191/6.0  Theory and Analysis I
Diatonic voice-leading and harmony, principles of form and small structures (binary, ternary) through part-writing and analysis.

NOTE Students holding First-Class Honours standing in the Royal Conservatory Advanced Rudiments may enroll in the course with permission of the School.

LEARNING HOURS 240 (72L;24T;144P)
PREREQUISITE A minimum grade of A- in MUSC 104/3.0 or MUSC P52/3.0, or permission of the School.
MUTH 160/1.5  **Music Theatre Ensemble**  
Performance experience for qualified musicians in a staged vocal ensemble. Topics include musical theatre, opera, or other ensemble formats combining voice and drama.  
**NOTE** Placement is made at the discretion of the School based on an audition or other criteria.  
**LEARNING HOURS** 168 (72Pc;24G;72P)  
**PREREQUISITE** Permission of the School.

PACT 100/3.0  **Fundamental Practicum in Physical Activity**  
This course will expose students to a wide variety of physical activities with the intent of learning fundamental pedagogical concepts relevant to structured (e.g. Physical Education) and unstructured (e.g. recreational) physical activity environments. Students will develop an activity lesson plan and effectively teach its content.  
**LEARNING HOURS** 108 (16L;32Pc;60P)  
**PREREQUISITE** Registration in a PHED Specialization Plan.

PHAR 100/3.0  **Introductory Pharmacology**  
Topics covered include central nervous system stimulants and depressants, narcotics, alcohol, cardiovascular agents, contraceptives, environmental toxicants, mechanism of drug action and disposition, antibiotics, drugs used in sports, over-the-counter drugs, food additives, and vitamins.  
**NOTE** Also offered as a distance course. Consult Continuing and Distance Studies.  
**RECOMMENDATION** 4U Biology.  
**ONE-WAY EXCLUSION** May not be taken with or after: PHAR 230/3.0; PHAR 270/3.0; PHAR 340/3.0; PHAR 450/3.0.

PHIL 111/6.0  **Great Works of Philosophy**  
An introduction to philosophy through the examination of a number of classic philosophical works, with an evaluation of the positions and arguments offered in each.  
**NOTE** Students considering a Major or Medial Plan in PHIL are strongly urged to take PHIL 111/6.0 or PHIL 115/6.0 in their first year.  
**LEARNING HOURS** 240 (72L;168P)  
**EXCLUSION** No more than 1 course from PHIL 111/6.0; PHIL 127/6.0; PHIL 151/3.0.

PHIL 115/6.0  **Fundamental Questions**  
Representative basic philosophical issues will be explored, such as: good and bad arguments, the source of moral obligation, the justification of knowledge claims, free will and determinism, the social enforcement of gender roles, taking responsibility for the environment, and the meaning of life.  
**NOTE** Students considering a Major or Medial Plan in PHIL are strongly urged to take PHIL 111/6.0 or PHIL 115/6.0 in their first year.  
**LEARNING HOURS** 240 (48L;24T;168P)

PHIL 151/3.0  **Great Works of Philosophy**  
An examination of some major milestones in the development of philosophical thought. The course will involve both the exposition of texts and discussion of the philosophical issues which they raise.  
**LEARNING HOURS** 120 (24L;12T;84P)  
**EXCLUSION** No more than 1 course from PHIL 111/6.0; PHIL 151/3.0.

PHIL 153/3.0  **The State and the Citizen**  
An introduction to political philosophy which explores the relationship between state and citizen. Issues include: civil disobedience, nationalism, the welfare state, anarchism and the capitalist state.  
**LEARNING HOURS** 120 (36L;84P)
PHIL 157/3.0  Moral Issues
An introduction to ethics via an examination of controversial moral issues. Special topics: abortion; animal rights; euthanasia.

NOTE    Also offered online. Consult Continuing and Distance Studies.
LEARNING HOURS  120 (36L;84P)

PHYS 104/6.0  Fundamental Physics
Mechanics, including systems of particles and rigid body motion; gravitation; fluids; electricity and magnetism; oscillatory motion and waves; topics in modern physics. The material is presented at a more fundamental level appropriate for students who are seeking a deeper appreciation of physics, and who may be considering a concentration in Physics.
LEARNING HOURS  240 (72L;36Lb;36T;96P)
RECOMMENDATION  4U Physics is required.
COREQUISITE    MATH 120/6.0 or MATH 121/6.0 or (MATH 123/3.0 and MATH 124/3.0).
EXCLUSION    No more than 6.0 units from PHYS 104/6.0; PHYS 106/6.0; PHYS 117/6.0; PHYS 118/6.0.

PHYS 106/6.0  General Physics
Mechanics, including systems of particles and rigid body motion; fluids; electricity and magnetism; oscillatory motion and waves; heat, light and sound; topics in modern physics. Aspects of physics useful for further work in other sciences will be emphasized.
LEARNING HOURS  240 (72L;36Lb;36T;96P)
RECOMMENDATION  4U Physics is recommended.
COREQUISITE    MATH 120/6.0 or MATH 121/6.0 or MATH 122/6.0 or (MATH 123/3.0 and MATH 124/3.0).
EXCLUSION    No more than 6.0 units from PHYS 104/6.0; PHYS 106/6.0; PHYS 117/6.0; PHYS 118/6.0.

PHYS 117/6.0  Introductory Physics
An algebra-based course dealing with basic physics concepts, including dynamics, fluids, waves, electromagnetism, and basic optics. Emphasis is based on the development of problem-solving skills through the use of Mastery based course delivery. PHYS 117/6.0 includes a required lab component.

LEARNING HOURS  240 (72L;36Lb;36T;96P)
RECOMMENDATION  4U Physics is recommended.
EXCLUSION    No more than 6.0 units from PHYS 104/6.0, PHYS 106/6.0; PHYS 117/6.0; PHYS 118/6.0.

POLS 101/3.0  Contemporary Issues in Politics
An examination of current political issues. By examining an issue or problem students will be exposed to political institutions, processes and concepts in political science. The subject matter will change depending on the instructor and the current political events.

NOTE    This course does not lead to further courses in Political Studies. Not available for credit towards any POLS Plan.
LEARNING HOURS  120 (24L;12T;12Oc;72P)

POLS 110/6.0  Introduction to Politics and Government
An introduction to political science that provides both a framework for thinking about politics and the institutions of governance, and some of the vocabulary necessary for political analysis.

PORT 103/3.0  Beginning Portuguese and Culture I
Introduction to the language and culture of Portugal and Brazil, acquiring basic communicative skills, vocabulary, and structures of the Portuguese language. This course promotes knowledge and understanding of the social, cultural, and historical contexts of both countries.
LEARNING HOURS  120 (36L;84P)
EXCLUSION    No more than 3.0 units from LLCU 101/3.0 (if taken between 2012-13 and 2014-15); PORT 103/3.0.
PORT 104/3.0  Beginning Portuguese and Culture II  
Continuation of PORT 103/3.0. Basic communicative skills, vocabulary, and structures of the Portuguese language and the knowledge and understanding of the social, cultural, and historical contexts of Portugal and Brazil, and other Portuguese speaking countries. 
LEARNING HOURS 120 (36L;84P) 
PREREQUISITE PORT 103/3.0 or LLCU 101/3.0 if taken between 2012-13 and 2014-15). EXCLUSION No more than 3.0 units from LLCU 102/3.0 (if taken between 2012-13 and 2014-15); PORT 104/3.0.

PSYC 100/6.0  Principles of Psychology  
An introductory survey of basic areas of psychology including perception, cognition, learning and motivation and their biological substrata. Also reviewed are child development, individual differences, social psychology and abnormal psychology. Research participation experience is provided for students on an individual voluntary basis. Students are encouraged to participate in up to five hours of research experimentation. The course is based on a blended model where on-line learning is supplemented with a weekly lecture and small-group learning lab. 
LEARNING HOURS 221 (24L;22Lb;100O;75P)

RELS 131/6.0  World Religions/Religious Worlds  
Introduces religion in India, China and Japan; also the movements of Judaism, Christianity, Islam and Humanism. 
NOTE Also offered online. Consult Continuing and Distance Studies. 
LEARNING HOURS 228 (48L;24T;156P)

RELS 161/6.0  Contemporary Problems in Religion and Culture  
Explores religious issues in culture, literature, politics and social ethics. 
LEARNING HOURS 228 (48L;24T;156P)

SOCY 122/6.0  Introduction to Sociology  
An introduction to the concepts, theories and methods of sociological enquiry, and their application to the analysis of Canadian society. 
LEARNING HOURS 240 (24L;24G;48O;144P)

SPAN 111/3.0  Beginning Spanish I  
Offers a basic level of Spanish understanding, speaking, reading and writing for students who have no knowledge of Spanish whatsoever. 
NOTE Also offered online. Consult Continuing and Distance Studies. Learning Hours may vary. 
LEARNING HOURS 120 (36L;12O;72P) 
ONE-WAY EXCLUSION May not be taken with or after SPAN 112/3.0; SPAN 204/3.0; SPAN 205/3.0; SPAN 301/3.0; SPAN 302/3.0; SPAN 303/3.0; SPAN 304/3.0; SPAN 401/3.0; SPAN 402/3.0; SPAN 201/6.0. 
EQUIVALENCY SPAN P10/3.0.

SPAN 112/3.0  Beginning Spanish II  
The continuation of SPAN 111/3.0. Also for students entering the University who have some knowledge of Spanish but have not completed 4U Spanish or equivalent. For these students an assessment exam or interview with an academic adviser is required before registration. Contact the Department of Languages, Literatures and Cultures for details. 
LEARNING HOURS 120 (36L;6O;78P) 
PREREQUISITE A grade of C in SPAN 111/3.0 or SPAN P10/3.0. EXCLUSION No more than 6.0 units from SPAN 111/3.0; SPAN 112/3.0; SPAN P10/3.0. 
ONE-WAY EXCLUSION May not be taken with or after SPAN 201/6.0; SPAN 204/3.0; SPAN 205/3.0; SPAN 301/3.0; SPAN 302/3.0; SPAN 303/3.0; SPAN 304/3.0; SPAN 401/3.0; SPAN 402/3.0; SPAN 402/3.0.
After reviewing the list of Courses Available to First Year Students and reading the Calendar descriptions, Jake knows he can take either HIST 121, 122, or 124 this year, to satisfy the first-year requirement in order to go on into the plan. Jake chooses HIST 122. Jake wants to keep the possibility of a Plan in English open, and he sees in the Calendar that ENGL 100 would be required so adds that. The possibility of applying to the Faculty of Education (after his Bachelor’s degree) is an option Jake wants to keep open and in preparation has been told that Psyc 100 is a requirement. Jake is ready to pick his final elective credit. He wants to learn a new language but is also interested in sports and healthy living, after speaking to a few people at SOAR he decides it is best to keep as many options open for the future so he chooses HLTH 101 and 102 and that he will pursue his language interests as a second year elective instead.

Jake’s Course Choices:

- History 122
- Health 102
- Health 101
- Psychology 100
- English 100

**BUILDING JAKE’S TIMETABLE:**

Jake plans to enrol in: HIST 122, ENGL 100, PSYC 100, HLTH 101, & HLTH 102.

Jake begins by adding the courses to his Blank Timetable.

- Single lecture courses only have one lecture time and are only offered in one time slot, therefore they should be scheduled first in Jake’s timetable. Courses that have multiple lecture sections are offered in many different time slots and can be scheduled to work around other courses much more easily.

- Jake searches each of his classes on SOLUS and notes the times for each lecture on his timetable. Then Jake looks to see if any of his classes require tutorials and add them to his timetable.

- Jake adds his courses to his Shopping Cart on SOLUS.

- Once all of the courses are in the Shopping Cart, the "Validate" function will confirm that all course requirements and prerequisites have been met. Once your Enrollment Appointment arrives, the courses will be able to be successfully added as long as there is space available in the course.
**JAKE’S TIMETABLE**

NOTE: These are not the actual course times; they are just being used for example purposes.

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Lydia is interested in med school or graduate studies / research in the sciences. Her favourite science in high school was Biology – because of this she is considering a major in Biology. After looking at the ‘What it takes to get into Biology’ link on the ArtSci website, she sees that the Degree Plan for the Biology Major she should take the following courses to get into the program: BIOL 102, BIOL 103, MATH 121 or equivalent, and CHEM 112. It is highly recommended to take PHYS 117, PHYS 106, or PHYS 104, but not required for Biology. Physics would be required if Lydia were to switch into a Chemistry, Geology or a Life Science Plan; so she decides to take PHYS 117 to keep her options open. Lastly, Lydia refers to the Courses Available to First Year Students and decides MUSC 124: Applied Music as her elective.

Lydia’s Course Choices:
- Math 121
- Biology 102 & 103
- Chemistry
- Physics 117
- Music 124
- CHEM 112

BUILDING LYDIA’ TIMETABLE:
Lydia plans to enrol in MATH 121, BIOL 101 & 103, CHEM 112, PHYS 117, MUSC 124. She knows that because she is in the Sciences, she will need to choose lectures, labs and tutorials and figure out how to make them all fit together. Since creating a science timetable can be complicated, the Arts and Science office have created three sample timetables for Lydia to choose from. Because she is planning to enrol in BIOL102/102; CHEM112; MATH121 and PHYS117 she selects Timetable A. Now that she knows when each of her lectures will be held, she can choose which lab and tutorial sections she wants. Then she can add in her elective. Lydia knows that the timetable she has chosen offers lectures at West Campus, so she plans her schedule to allow for a little more time between classes.

Lydia adds her classes to her Shopping Cart on SOLUS.
Once all of the courses are in the Shopping Cart, the "Validate" function will confirm that all course requirements and prerequisites have been met. Once your Enrollment Appointment arrives, the courses will be able to be successfully added as long as there is space available in the courses.
LYDIA’S TIMETABLE
NOTE: These are not the actual course times; they are just being used for example purposes.

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Building your first-year SCIENCE timetable

We know that building your science timetable can seem a bit overwhelming. There are so many lectures and labs to choose from and sometimes it is hard to know which courses you should take and how to fit them all into your timetable. To help you with this, we have created three first-year science timetables for you to choose from.

In order to decide which timetable is right for you, you need to first decide which science courses you want to take based on the suggested courses listed for the Plans that you think you may want to choose as your Specialization, Major or Minor Plans.

Once you know which courses you want to take, you can choose your schedule from one of the three science schedules that we have created based on the criteria below:

i) Morning Lectures/Mid-Day and Afternoon Labs – recommended for students taking 3 or 4 of BIOL 102/103, CHEM 112, MATH 121, PHYS 117, PSYC100. The classes in this timetable are scheduled in Duncan Macarthur Hall at West Campus.

   **NOTE:** it is a 15-20 minute walk from West Campus to Main Campus. Keep that in mind when choosing your elective!

ii) Mid-Day Lectures/Morning and Afternoon Labs – recommended for students wishing to take any of MATH 110, MATH 120, PHYS 104, or PHYS 106

iii) Afternoon Lectures/Morning Labs – recommended for students taking 2 or fewer of BIOL 102/103, CHEM 112, MATH 121, PHYS 117

You will find all three timetables published on our website beginning June 20.

Visit [www.QUArtsci.com/1styear](http://www.QUArtsci.com/1styear) to see the first year science timetables that we have created for you.
Timetable Template

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Frequently Asked Questions

I have been admitted to Arts and want to take Science courses, can I do this?
Yes! Given that we are an integrated faculty, students may choose from a wide variety of Arts and Science courses. However, we also need to ensure that the students who are intending to pursue a major in a specific discipline have priority access to the courses that they need. For this reason, we reserve seats in some classes during the first two weeks of registration. This ensures that Arts students receive priority access to Arts courses and that Science students receive priority access to Science courses. Beginning at 12:00 pm (noon) EST on July 18, reserves on first year courses will be removed and you may then add the courses you were unable to when your enrolment appointment time began.

What if I want to switch to Science from Arts, can I do this?
It is possible, but there are some challenges.
Access to Plans and progression within Plans. Most Plans within Arts and Science will have at least one first year required course. In order to be eligible to request a specific Plan (e.g., BIOL), students normally need to achieve a minimum required grade in that first-year course. If, for some reason, you are not able to enrol in that first-year course, then you likely would not be eligible to apply for that Plan. Also, if you are not able to enrol in the full slate of first-year Science courses you would be behind in your studies and it could take you longer to complete your degree.
Preparation for Science courses. Students who are admitted to Science have completed specific high school science courses. These courses are pre-requisites for university science courses as they provide foundational content to support for university study in science. Students who do not have these pre-requisite courses frequently do not do well in university science courses since they are missing necessary foundational content.
Since first-year marks are the determining factor for access to Plans, students are encouraged to make wise choices with their course selection and allow themselves as many options for Plans to study as possible through the selection of their first-year course.

How many courses do students in Arts & Science take?
A full-time student normally takes five courses (30.0 units) during the Fall-Winter session. Students in BMUS, BAH/Bed and BSCH/Bed have a load higher than 30.0 units. Students may carry fewer than 30.0 units, and as many as 36.0 units, without special permission.

How many courses can I take from another Faculty (i.e. Commerce or Law)?
Students are permitted to take a maximum of 6.0 units from courses offered by other Faculties and Schools which can be counted towards the Program and/or Plan requirements of any degree in the Faculty of Arts & Science.

What is the grading system at Queen’s?
Please follow this link to the http://www.queensu.ca/artsci/students-at-queens/gpa-calculators
Who do I talk to about transfer credits? Advanced Placement (AP), International Baccalaureate (IB), A-Level, Cambridge Pre-U or French Baccalaureate credits?
If the course was taken before you became a Queen’s student, you must speak to Undergraduate Admission in Gordon Hall about the possibility of retroactively transferring the credit before the end of your first term (December 2016). This includes AP, IB, A-level, Cambridge Pre-U and French Baccalaureate courses completed in high school. For more information please visit http://www.queensu.ca/admission/apply-high-school/transfer-credits.

How and when do I enrol in my classes?
All students are given an Enrollment Appointment Time to begin enrolling in classes. You can view your Enrolment Appointment Time in SOLUS beginning July 4. Enrollment Appointment Times are randomly generated according to your level at the University. Enrollment Appointment Times cannot be changed.
HINT: If you do not have access to a computer when your enrolment appointment time begins, you can call us once your appointment time begins and we can assist you. Or, you can have a friend or family member access SOLUS and enrol in your classes for you. Remember, your enrollment appointment time cannot be changed.
When your Enrollment Appointment Time begins, access the SOLUS Student Centre to Finish Enrolling in your classes. If there is space available in the classes that you have selected you will enrolled in those classes.
You are not enrolled in your classes until you complete this step!

I am trying to enrol in a class but am getting an error message about the class being reserved?
What does that mean?
To ensure that first year students are able to access the courses they need for their degree program, we put “reserves” on some of our first year classes. If you try to add a class and get a “reserved” error message, don’t fret! Restrictions on first year classes will be lifted as of noon (EST) on July 18. If you can’t get into a class because of a reserve, try again on July 18.
NOTE: this only applies to First-Year Students enrolling in First-Year courses. It does not apply to upper year students.

I want to get into a class but it is full – What can I do?
We know how disappointing it can be when this happens but here are a couple of suggestions. Most of our classes will be set up with wait lists. If the class is full, you can opt to go on the wait list. Details on wait lists is available at http://www.queensu.ca/artsci/students-at-queens/class-selection. If the class you want doesn’t have a wait list, or the wait list is full, keep trying. Students make lots of class changes throughout the registration period and it could happen that someone drops the class you want to add. Perseverance pays off!

Do you have backup course choices if classes are full?
Yes, you should always consider backup choices during the course registration period, especially for elective courses as you are not guaranteed a spot within them. However, you are given more priority for courses that are required for your major and/or minor, so you should ensure that these courses do not have time conflicts. You can browse either the department websites or you can look through the Academic Calendar at this link to see what courses are available: http://www.queensu.ca/artsci/sites/default/files/courses_of_instruction.pdf.
Is there a deadline for enrolling in my classes?
Yes! Registration closes on July 29 so make sure you are enrolled in all of your classes by this date.

What if I want to make changes after July 29?
If you want to make changes to your classes you can access SOLUS beginning August 23rd when Open Enrolment begins. At this time you can make changes to your classes if you need to. Be sure to pay attention to the deadline dates for adding and dropping classes.

How does your academic performance in first year (i.e., marks) affect a student’s ability to select a concentration/major going into second year?
A student’s mark in the required first-year course and/or cumulative Grade Point Average (GPA) are what determine access to Plans (concentrations or majors). Students should select required first-year courses that allow for access to as many Plans as a student may have interest in. Plans are selected at the end of first year (May).

Are there prerequisites for courses you want to take in later years?
Yes, most upper year courses have prerequisites in order to enroll in them. These prerequisites usually correspond with first year courses. Therefore, it is important to check the prerequisites for courses you are interested in before attempting to enroll in them. A list of all courses and their prerequisites can be found in the Academic Calendar, following this link: http://www.queensu.ca/artsci/sites/default/files/courses_of_instruction.pdf

What were the thresholds for each Plan last year?
The minimum thresholds for access to each Plan last year can be found at this link: http://www.queensu.ca/artsci/sites/default/files/courses_of_instruction.pdf
It is recommended that you read about Automatic and Pending categories as well as the Plan Selection process found at this link: http://www.queensu.ca/artsci/students-at-queens/2nd-year

What is special about first-year courses in Arts and Science at Queen’s?
At Queen’s we are transforming some of our largest first-year courses to ensure that every student has an engaging personal learning experience, no matter how big the course enrolment. An innovative course design known as blended learning is enabling us to go beyond the lecture format, which is traditional for large classes, and to focus more on a classroom experience where students work collaboratively in small groups and are engaged actively in their own learning.

What is a blended course?
In Arts and Science, “blended” means the thoughtful and purposeful combination of classroom learning and online learning. The specific design of each blended course is unique, but in general:

- students are guided through some fundamental content and concepts with readings and interactive online materials;
- classroom time is focused on small group activities and collaborative learning, where students apply and synthesize the concepts and theories they have learned;
- there are fewer total classroom hours (e.g. 2 per week instead of 3 per week).

For example, if you’re one of the 1800 students in PSYC 100, each week looks like this: complete preparatory work online, attend one lecture in a class of 450, and participate in one active, face-to-face learning lab together with your group of 6 students (in a class of 24 students).