The normal course load for a full-time student in the first-year of any B.Sc. program is 5.0 credits. Recommended course selections for each program appear below. (Undeclared students should refer to the information in the accompanying brochure.) Unless otherwise noted, courses are 0.5 credits.

For information on which courses can be included in the different elective categories, please refer to the Undergraduate Calendar (carleton.ca/cuuc) - Academic Regulations and Requirements for the Bachelor of Science Degree.

### Biochemistry - B.Sc. Honours (20.0 credits)
- BIOL 1103 Foundations of Biology I
- BIOL 1104 Foundations of Biology II
- CHEM 1001 General Chemistry I
- CHEM 1002 General Chemistry II
- MATH 1007 Elementary Calculus I
- PHYS 1007 University Physics I
- PHYS 1008 University Physics II
- MATH 1107 Linear Algebra I

1.0 credit in Arts or Social Sciences electives (may include NSCI 1000)

### Biochemistry - B.Sc. Major (20.0 credits)
- BIOL 1003 Introductory Biology I
- BIOL 1004 Introductory Biology II
- CHEM 1001 General Chemistry I
- CHEM 1002 General Chemistry II
- MATH 1007 Elementary Calculus I
- PHYS 1007 University Physics I
- PHYS 1008 University Physics II
- MATH 1107 Linear Algebra I

1.0 credit in Arts or Social Sciences electives (may include NSCI 1000)

*CHEM 1001 and 1002 are strongly recommended for this program. Students may substitute these with CHEM 1005 and 1006 but will be required to obtain a grade of B- or better in CHEM 1006 in order to take BIOL 2200 and more advanced courses. Students completing CHEM 1005 with a grade of B- or better are encouraged to register for CHEM 1002.

### Biology - B.Sc. Honours (20.0 credits)
- BIOL 1103 Foundations of Biology I
- BIOL 1104 Foundations of Biology II
- CHEM 1001 General Chemistry I*
- CHEM 1002 General Chemistry II*
- MATH 1007 Elementary Calculus I
- PHYS 1007 University Physics I
- PHYS 1008 University Physics II

Either:
- MATH 1107 Linear Algebra I
or:
- STAT 2507 Introduction to Statistics
or:
- BIOL 1005 Introduction to Quantitative Methods in Biology

1.0 credit in Arts or Social Sciences electives (may include NSCI 1000)

*CHEM 1001 and 1002 are strongly recommended for this program. Students may substitute these with CHEM 1005 and 1006 but will be required to obtain a grade of B- or better in CHEM 1006 in order to take BIOL 2200 and more advanced courses. Students completing CHEM 1005 with a grade of B- or better are encouraged to register for CHEM 1002.

### Biology with Concentration in Ecology, Evolution, and Behaviour - B.Sc. Honours (20.0 credits)
- BIOL 1103 Foundations of Biology I
- BIOL 1104 Foundations of Biology II
- CHEM 1001 General Chemistry I*
- CHEM 1002 General Chemistry II*
- MATH 1007 Elementary Calculus I
- PHYS 1007 University Physics I
- PHYS 1008 University Physics II

Either:
- MATH 1107 Linear Algebra I
or:
- STAT 2507 Introduction to Statistics
or:
- BIOL 1005 Introduction to Quantitative Methods in Biology

1.0 credit in Arts or Social Sciences electives (may include NSCI 1000)

*CHEM 1001 and 1002 are strongly recommended for this program. Students may substitute these with CHEM 1005 and 1006 but will be required to obtain a grade of B- or better in CHEM 1006 in order to take BIOL 2200 and more advanced courses. Students completing CHEM 1005 with a grade of B- or better are encouraged to register for CHEM 1002.
Biology with Concentration in Health Science or in Molecular & Cellular Biology or in Physiology - B.Sc. Honours (20.0 credits)

BIOL 1103 Foundations of Biology I
BIOL 1104 Foundations of Biology II
CHEM 1001 General Chemistry I*
CHEM 1002 General Chemistry II*
PHYS 1007 University Physics I
PHYS 1008 University Physics II
MATH 1007 Elementary Calculus
Either:
MATH 1107 Linear Algebra I or:
STAT 2507 Introduction to Statistics
or:
BIOL 1005 Introduction to Quantitative Methods in Biology
1.0 credit in Arts or Social Sciences electives (may include NSCI 1000)

* CHEM 1001 and 1002 are strongly recommended for this program. Students may substitute these with CHEM 1005 and 1006 but will be required to obtain a grade of B- or better in CHEM 1006 in order to take BIOL 2200 and more advanced courses. Students completing CHEM 1005 with a grade of B- or better are encouraged to register for CHEM 1002.

Biology - B.Sc. General (15.0 credits)

BIOL 1003 Introductory Biology I
BIOL 1004 Introductory Biology II
CHEM 1005 Elementary Chemistry I*
CHEM 1006 Elementary Chemistry II*
MATH 1007 Elementary Calculus I
PHYS 1007 University Physics I
PHYS 1008 University Physics II
Either:
MATH 1107 Linear Algebra I or:
STAT 2507 Introduction to Statistics
1.0 credit in Arts or Social Sciences electives (may include NSCI 1000)

* students in this program normally take CHEM 1005 and CHEM 1006, but those who intend to take more advanced courses in BIOC and CHEM will be required to obtain a grade of B- or better in CHEM 1006.

Bioinformatics - B.Sc. Honours (20.0 credits)

BIOL 1103 Foundations of Biology I
BIOL 1104 Foundations of Biology II
CHEM 1001 General Chemistry I*
CHEM 1002 General Chemistry II*
PHYS 1007 University Physics I
PHYS 1008 University Physics II
MATH 1007 Elementary Calculus I
MATH 1107 Linear Algebra I
COMP 1005 Introduction to Computer Science I
0.5 credit in Arts or Social Sciences elective (may include NSCI 1000)

* CHEM 1001 and 1002 are strongly recommended for this program. Students may substitute these with CHEM 1005 and 1006 but will be required to obtain a grade of B- or better in CHEM 1006 in order to take BIOL 2200 and more advanced courses. Students completing CHEM 1005 with a grade of B- or better are encouraged to register for CHEM 1002.

Chemistry - B.Sc. Honours (20.0 credits)

CHEM 1001 General Chemistry I
CHEM 1002 General Chemistry II
MATH 1004 Calculus for Engineering Students or Physics
MATH 1107 Linear Algebra I
Either both:
PHYS 1003 Mechanics and Thermodynamics and
PHYS 1004 Electromagnetism and Wave Motion or both:
PHYS 1007 University Physics I and
PHYS 1008 University Physics II
1.0 credit in Arts or Social Sciences electives (may include NSCI 1000)
1.0 credit in Science Faculty Electives such as, but not limited to:
BIOL 1003 Introductory Biology I
BIOL 1004 Introductory Biology II
COMP 1004 Introduction to Computers for the Sciences
ERTH 1006 Exploring Planet Earth
ERTH 1009 The Earth System Through Time

Nanoscience - B.Sc. Honours (20.0 credits)

CHEM 1001 General Chemistry I
CHEM 1002 General Chemistry II
MATH 1004 Calculus for Engineering Students
MATH 1005 Differential Equations and Infinite Series for Engineering Students
MATH 1104 Linear Algebra for Engineering and Computer Science Students
PHYS 1003 Mechanics and Thermodynamics
PHYS 1004 Electromagnetism and Wave Motion
1.0 credit in Arts or Social Sciences elective (may include NSCI 1000)
0.5 credit credit Free Elective
Chemistry - B.Sc. General
(15.0 credits)
CHEM 1001 General Chemistry I
CHEM 1002 General Chemistry II
MATH 1004 Calculus for Engineering or Physics
MATH 1107 Linear Algebra I
Either both:
PHYS 1003 Mechanics and Thermodynamics
and
PHYS 1004 Electromagnetism and Wave Motion
or both:
PHYS 1007 University Physics I
and
PHYS 1008 University Physics II
1.0 credit in Arts or Social Sciences electives (may include NSCI 1000)
0.5 credit in Arts or Social Sciences elective (may include NSCI 1000)
* CHEM 1001 and 1002 are strongly recommended for this program. Students may substitute these with CHEM 1005 and 1006 but will be required to obtain a grade of B- or better in CHEM 1006 in order to take BIOL 2200 and more advanced courses. Students completing CHEM 1005 with a grade of B- or better are encouraged to register for CHEM 1002.

Environmental Science - B.Sc. Honours
(20.0 credits)
ENSC 1500, fall, Environmental Science Seminar
BIOL 1003 or BIOL 1103, fall, Introductory Biology I or Foundations of Biology I **
ERTH 1006, fall, Exploring Planet Earth
CHEM 1001, fall, General Chemistry I

Food Science and Nutrition - B.Sc. Honours
(20.0 credits)
BIOL 1003 Introductory Biology I
BIOL 1004 (Introductory Biology II
CHEM 1001 General Chemistry I
CHEM 1002 General Chemistry II
MATH 1007 Elementary Calculus I
MATH 1107 Elementary linear Algebra I
PHYS 1007 University Physics I
PHYS 1008 University Physics II
1.0 credit in Arts or Social Sciences electives (may include NSCI 1000)

Environmental Science - B.Sc. Major
(20.0 credits)
ENSC 1500, fall, Environmental Science Seminar
BIOL 1003 or BIOL 1103, fall, Introductory Biology I or Foundations of Biology I **
ERTH 1006, fall, Exploring Planet Earth
CHEM 1001, fall, General Chemistry I

Computational Biochemistry - B.Sc. Honours
(20.0 credits)
BIOL 1103 Foundations of Biology I
BIOL 1104 Foundations of Biology II
CHEM 1001 General Chemistry I
CHEM 1002 General Chemistry II
PHYS 1007 University Physics I
PHYS 1008 University Physics II
MATH 1007 Elementary Calculus I
MATH 1107 Linear Algebra I
1.0 credit in Arts or Social Sciences electives (may include NSCI 1000)

Computational Biology - B.Sc. Honours
(20.0 credits)
BIOL 1103 Foundations of Biology I
BIOL 1104 Foundations of Biology II
CHEM 1001 General Chemistry I*
CHEM 1002 General Chemistry II*

Food Science and Nutrition - B.Sc. Honours
(20.0 credits)
BIOL 1003 Introductory Biology I
BIOL 1004 (Introductory Biology II
CHEM 1001 General Chemistry I
CHEM 1002 General Chemistry II
MATH 1007 Elementary Calculus I
MATH 1107 Elementary linear Algebra I
FOOD 1001 Introduction to Food Science Economics
Either:
PHYS 1007 University Physics I
or:
ERTH 1006 Exploring Planet Earth
or:
ERTH 1009 The Earth System Through Time

Environmental Science - B.Sc. Major
(20.0 credits)
EMSC 1500, fall, Environmental Science Seminar
BIOL 1003 or BIOL 1103, fall, Introductory Biology I or Foundations of Biology I **
ERTH 1006, fall, Exploring Planet Earth
CHEM 1001, fall, General Chemistry I

Computational Biochemistry - B.Sc. Honours
(20.0 credits)
BIOL 1103 Foundations of Biology I
BIOL 1104 Foundations of Biology II
CHEM 1001 General Chemistry I
CHEM 1002 General Chemistry II
PHYS 1007 University Physics I
PHYS 1008 University Physics II
MATH 1007 Elementary Calculus I
MATH 1107 Linear Algebra I
0.5 credit in Arts or Social Sciences elective (may include NSCI 1000)
* CHEM 1001 and 1002 are strongly recommended for this program. Students may substitute these with CHEM 1005 and 1006 but will be required to obtain a grade of B- or better in CHEM 1006 in order to take BIOL 2200 and more advanced courses. Students completing CHEM 1005 with a grade of B- or better are encouraged to register for CHEM 1002.
**Geography with Concentration in Physical Geography - B.Sc. Honours (20.0 credits)**

GEOG 1010 Global Environmental Systems

or

ERTH 1006 Exploring Planet Earth

GEOG 2013 Physical Geography

1.0 credit in experimental science as outlined in the undergraduate calendar (Academic Regulations and Requirements for the Bachelor of Science Degree)

A course in Mathematics, Statistics or Computer Science (0.5 credits)

1.0 credit in Arts or Social Sciences electives (may include NSCI 1000)

An additional 1.0 credit in electives not in Geography

**Earth Sciences - B.Sc. Honours (20.0 credits)**

ERTH 1006 Exploring Planet Earth

ERTH 1009 The Earth System Through Time

CHEM 1005 Elementary Chemistry I

CHEM 1006 Elementary Chemistry II

BIOL 1004 Introductory Biology II

MATH 1007 Elementary Calculus I

MATH 1107 Linear Algebra I

Either:

- PHYS 1003 Introductory Mechanics and Thermodynamics
- PHYS 1004 Introductory Electromagnetism and Wave Motion

or:

- PHYS 1007 University Physics I
- PHYS 1008 University Physics II

0.5 credit in Arts, Social Sciences, or free elective (may include NSCI 1000)

**Geography with Concentration in Geomatics - B.Sc. Honours (20.0 credits)**

GEOG 1010 Global Environmental Systems

or

ERTH 1006 Exploring Planet Earth

GEOG 2013 Physical Geography

1.0 credit in experimental science as outlined in the undergraduate calendar (Academic Regulations and Requirements for the Bachelor of Science Degree)

A course in Mathematics, Statistics or Computer Science (0.5 credits)

1.0 credit in Arts or Social Sciences electives (may include NSCI 1000)

An additional 1.0 credit in electives not in Geography

**Earth Sciences - B.Sc. Major (20.0 credits)**

ERTH 1006 Exploring Planet Earth

ERTH 1009 The Earth System Through Time

CHEM 1005 Elementary Chemistry I

CHEM 1006 Elementary Chemistry II

BIOL 1004 Introductory Biology II

MATH 1007 Elementary Calculus I

MATH 1107 Linear Algebra I

Either:

- PHYS 1003 Introductory Mechanics and Thermodynamics
- PHYS 1004 Introductory Electromagnetism and Wave Motion

or:

- PHYS 1007 University Physics I
- PHYS 1008 University Physics II

**Integrated Science - B.Sc. Honours (20.0 credits)**

MATH 1007 Elementary Calculus I

or

MATH 1004 Calculus for Engineering or Physics

MATH 1107 Linear Algebra I

2.0 credits in additional courses chosen in consultation with the Integrated Science advisor.

2.0 credits chosen from:

- (BIOL 1003 Introductory Biology I or BIOL 1103 Foundations of Biology I)
- (BIOL 1004 Introductory Biology II or BIOL 1104 Foundations of Biology II)
- (CHEM 1001 General Chemistry I or CHEM 1005 Elementary Chemistry I)
- (CHEM 1002 General Chemistry II or CHEM 1006 Elementary Chemistry II)

**Earth Sciences - B.Sc. General (15.0 credits)**

ERTH 1006 Exploring Planet Earth

ERTH 1009 The Earth System Through Time

CHEM 1005 Elementary Chemistry I

CHEM 1006 Elementary Chemistry II

MATH 1007 Elementary Calculus I

MATH 1107 Linear Algebra I

Either both:

- PHYS 1003 Introductory Mechanics and Thermodynamics
- PHYS 1004 Introductory Electromagnetism and Wave Motion

or:

- PHYS 1007 University Physics I
- PHYS 1008 University Physics II

**Integrated Science - B.Sc. General (15.0 credits)**

MATH 1007 Elementary Calculus I

or

MATH 1004 Calculus for Engineering or Physics

MATH 1107 Linear Algebra I

2.0 credits in additional courses chosen in consultation with the Integrated Science advisor.

2.0 credits chosen from:

- (BIOL 1003 Introductory Biology I or BIOL 1103 Foundations of Biology I)
- (BIOL 1004 Introductory Biology II or BIOL 1104 Foundations of Biology II)
- (CHEM 1001 General Chemistry I or CHEM 1005 Elementary Chemistry I)
- (CHEM 1002 General Chemistry II or CHEM 1006 Elementary Chemistry II)

**Integrated Science - B.Sc. General (15.0 credits)**

MATH 1007 Elementary Calculus I

or

MATH 1004 Calculus for Engineering or Physics

MATH 1107 Linear Algebra I

2.0 credits in additional courses chosen in consultation with the Integrated Science advisor.

2.0 credits chosen from:

- (BIOL 1003 Introductory Biology I or BIOL 1103 Foundations of Biology I)
- (BIOL 1004 Introductory Biology II or BIOL 1104 Foundations of Biology II)
- (CHEM 1001 General Chemistry I or CHEM 1005 Elementary Chemistry I)
- (CHEM 1002 General Chemistry II or CHEM 1006 Elementary Chemistry II)

**Integrated Science - B.Sc. General (15.0 credits)**

MATH 1007 Elementary Calculus I

or

MATH 1004 Calculus for Engineering or Physics

MATH 1107 Linear Algebra I

2.0 credits in additional courses chosen in consultation with the Integrated Science advisor.

2.0 credits chosen from:

- (BIOL 1003 Introductory Biology I or BIOL 1103 Foundations of Biology I)
- (BIOL 1004 Introductory Biology II or BIOL 1104 Foundations of Biology II)
- (CHEM 1001 General Chemistry I or CHEM 1005 Elementary Chemistry I)
- (CHEM 1002 General Chemistry II or CHEM 1006 Elementary Chemistry II)

**Integrated Science - B.Sc. General (15.0 credits)**

MATH 1007 Elementary Calculus I

or

MATH 1004 Calculus for Engineering or Physics

MATH 1107 Linear Algebra I

2.0 credits in additional courses chosen in consultation with the Integrated Science advisor.

2.0 credits chosen from:

- (BIOL 1003 Introductory Biology I or BIOL 1103 Foundations of Biology I)
- (BIOL 1004 Introductory Biology II or BIOL 1104 Foundations of Biology II)
- (CHEM 1001 General Chemistry I or CHEM 1005 Elementary Chemistry I)
- (CHEM 1002 General Chemistry II or CHEM 1006 Elementary Chemistry II)
Neuroscience and Mental Health -
B.Sc. Honours (20.0 credits)

or

Neuroscience and Mental Health -
B.Sc. Major (20.0 credits)

or

Neuroscience and Mental Health -
B.Sc. General (15.0 credits)

BIOL 1003 Introductory Biology I
BIOL 1004 Introductory Biology II
PSYC 1001 Introduction to Psychology I
PSYC 1002 Introduction to Psychology II
CHEM 1001 General Chemistry I
CHEM 1002 General Chemistry II*
PHYS 1007 University Physics I
PHYS 1008 University Physics II
NEUR 1201 Introduction to Mental Health and Disease

Either:
MATH 1007 Elementary Calculus I
or
MATH 1107 Linear Algebra I

* *CHEM 1001 and 1002 are strongly recommended for this program. Students may substitute these with CHEM 1005 and 1006 but will be required to obtain a grade of B- or better in CHEM 1006 in order to take BIOL 2200 and more advanced courses. Students completing CHEM 1005 with a grade of B- or better are encouraged to register for CHEM 1002.

Applied Physics - B.Sc. Honours (with an option to do a Minor in Business) (20.0 credits)

or

Physics (Experimental Stream) - B.Sc. Honours (20.0 credits)

or

Physics (Theory Stream) - B.Sc. Honours (20.0 credits)

or

Physics - B.Sc. Major (20.0 credits))

PHYS 1001 Foundations of Physics I
PHYS 1002 Foundations of Physics II
MATH 1004 Calculus for Engineering Students
MATH 1005 Differential Equations and Infinite Series for Engineering Students
MATH 1104 Linear Algebra for Engineering and Computer Science Students

Either:
COMP 1005 Introduction to Computer Science I
or:
ECOR 1606 Problem Solving and Computers

Either:
CHEM 1001 General Chemistry I
CHEM 1002 General Chemistry II*
CHEM 1005 Elementary Chemistry I
CHEM 1006 Elementary Chemistry II

or:
PHYS 1003 Mechanics and Thermodynamics
and
PHYS 1004 Electromagnetism and Wave Motion
or:
PHYS 1007 University Physics I
and
PHYS 1008 University Physics II
or:
GEOG 1010 Global Environmental Systems
or:
ERTH 1006 Exploring Planet Earth
or:
ERTH 1009 The Earth System Through Time

1.0 credit in Arts or Social Sciences elective (may include NSCI 1000)

Psychology - B.Sc. Honours (20.0 credits)

PSYC 1001 Introduction to Psychology I
PSYC 1002 Introduction to Psychology II
MATH 1007 Elementary Calculus I
MATH 1107 Linear Algebra I
2.0 credits chosen from:
BIOL 1103 Foundations of Biology I
BIOL 1104 Foundations of Biology II
or:
CHEM 1001 General Chemistry I and
CHEM 1002 General Chemistry II
or:
CHEM 1005 Elementary Chemistry I
CHEM 1006 Elementary Chemistry II
or:
PHYS 1007 University Physics I
and
PHYS 1008 University Physics II
or:
GEOG 1010 Global Environmental Systems
or:
ERTH 1006 Exploring Planet Earth
or:
ERTH 1009 The Earth System Through Time
Combined Honours Programs

Biochemistry and Biotechnology - B.Sc. Combined Honours (20.0 credits)

BIOL 1103 Foundations of Biology I
BIOL 1104 Foundations of Biology II
CHEM 1001 General Chemistry I
CHEM 1002 General Chemistry II
PHYS 1007 University Physics I
PHYS 1008 University Physics II
MATH 1007 Elementary Calculus I
MATH 1107 Linear Algebra I

1.0 credit in Arts or Social Sciences electives (may include NSCI 1000)

Biology and Biotechnology - B.Sc. Combined Honours (20.0 credits)

BIOL 1103 Foundations of Biology I
BIOL 1104 Foundations of Biology II
CHEM 1001 General Chemistry I*
CHEM 1002 General Chemistry II*
PHYS 1007 University Physics I
PHYS 1008 University Physics II
MATH 1007 Elementary Calculus I
MATH 1107 Linear Algebra I

Either:
CHEM 1005 Elementary Chemistry I*
and
CHEM 1006 Elementary Chemistry II*
or both:
PHYS 1007 University Physics I
and
PHYS 1008 University Physics II

1.0 credit in Arts or Social Sciences electives (may include NSCI 1000)

* students in this program normally take CHEM 1005 and CHEM 1006, but those who intend to take more advanced courses in BIOC and CHEM will be required to obtain a grade of B- or better in CHEM 1006.

**the omitted subject (Chemistry or Physics) must have been taken at the 4U/M level

Biology and Earth Sciences - B.Sc. Combined Honours (20.0 credits)

BIOL 1103 Foundations of Biology I
BIOL 1104 Foundations of Biology II
ERTH 1006 Exploring Planet Earth Through Time
MATH 1007 Elementary Calculus I
MATH 1107 Linear Algebra I

Either both**:
CHEM 1005 Elementary Chemistry I*
and
CHEM 1006 Elementary Chemistry II*
or both:
PHYS 1007 University Physics I
and
PHYS 1008 University Physics II

1.0 credit in Arts or Social Sciences electives (may include NSCI 1000)

* students in this program normally take CHEM 1005 and CHEM 1006, but those who intend to take more advanced courses in BIOC and CHEM will be required to obtain a grade of B- or better in CHEM 1006.

**the omitted subject (Chemistry or Physics) must have been taken at the 4U/M level

Biology and Physics - B.Sc. Combined Honours (20.0 credits)

BIOL 1103 Foundations of Biology I
BIOL 1104 Foundations of Biology II
CHEM 1001 General Chemistry I*
CHEM 1002 General Chemistry II*
PHYS 1001 Foundations of Physics I
PHYS 1002 Foundations of Physics II
MATH 1004 Calculus for Engineering or Physics
MATH 1005 Differential Equations and Infinite Series for Engineering or Physics
MATH 1104 Linear Algebra for Engineering or Sciences
COMP 1005 Introduction to Object-Oriented Programming (usually taken in 2nd year)
NSCI 1000 Seminar in Science and 0.5 credit in approved Arts or Social Sciences

* * CHEM 1001 and 1002 are strongly recommended for this program. Students may substitute these with CHEM 1005 and 1006 but will be required to obtain a grade of B- or better in CHEM 1006 in order to take BIOL 2200 and more advanced courses. Students completing CHEM 1005 with a grade of B- or better are encouraged to register for CHEM 1002.

Biology and Physical Geography - B.Sc. Combined Honours (20.0 credits)

BIOL 1103 Foundations of Biology I
BIOL 1104 Foundations of Biology II
CHEM 1005 Elementary Chemistry I*
CHEM 1006 Elementary Chemistry II *
MATH 1007 Elementary Calculus I

Either:
ERTH 1006 Exploring Planet Earth or:
GEOG 1010 Global Environmental Systems

Either:
MATH 1107 Linear Algebra I or:
STAT 2507 Introduction to Statistics

1.0 credit in Arts or Social Sciences electives (may include NSCI 1000)

* students in this program normally take CHEM 1005 and CHEM 1006, but those who intend to take more advanced courses in BIOC and CHEM will be required to obtain a grade of B- or better in CHEM 1006.
Chemistry and Earth Sciences - B.Sc. Combined Honours (20.0 credits)
CHEM 1001 General Chemistry I
CHEM 1002 General Chemistry II
ERTH 1006 Exploring Planet Earth
ERTH 1009 The Earth System Through Time
MATH 1004 Calculus for Engineering or Physics
MATH 1107 Linear Algebra I
Either both:
PHYS 1003 Introductory Mechanics and Thermodynamics
and
PHYS 1004 Introductory Electromagnetism and Wave Motion
or both:
PHYS 1007 University Physics I
and
PHYS 1008 University Physics II
1.0 credit in Arts or Social Sciences electives (may include NSCI 1000)

Earth Sciences and Physical Geography: Concentration in Terrain Science - B.Sc. Combined Honours (20.0 credits)
ERTH 1006 Exploring Planet Earth
GEOG 2014 The Earth's Surface
CHEM 1001 General Chemistry I
CHEM 1002 General Chemistry II
MATH 1007 Elementary Calculus I
MATH 1107 Linear Algebra I
BIOL 1004 Introductory Biology II
Either both:
PHYS 1003 Mechanics and Thermodynamics
and
PHYS 1004 Electromagnetism and Wave Motion
or both:
PHYS 1007 University Physics I
and
PHYS 1008 University Physics II
0.5 credit in Arts or Social Sciences electives (may include NSCI 1000)

Chemistry and Physics - B.Sc. Combined Honours (20.0 credits)
CHEM 1001 General Chemistry I
CHEM 1002 General Chemistry II
PHYS 1001 Foundations of Physics I
PHYS 1002 Foundations of Physics II
MATH 1004 Calculus for Engineering or Physics
MATH 1005 Differential Equations and Infinite Series for Engineering Students
MATH 1104 Linear Algebra for Engineering and Computer Science Students
Either:
COMP 1005 Introduction to Computer Science I
or:
ECOR 1606 Problem Solving and Computers
1.0 credit in Arts or Social Sciences electives (may include NSCI 1000)
**Mathematics and Physics - B.Sc. Double Honours**

(21.5 credits)

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<th>Course Title</th>
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<td>MATH 1002</td>
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<td>[1.0] Algebra</td>
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<td>Foundations of Physics I</td>
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<td>PHYS 1002</td>
<td>Foundations of Physics II</td>
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<td>COMP 1005</td>
<td>Introduction to Computer Science I</td>
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<td>BIOL 1004</td>
<td>Introductory Biology II</td>
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<td>ERTH 1006</td>
<td>Exploring Planet Earth</td>
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<tr>
<td>ERTH 1009</td>
<td>The Earth System Through Time</td>
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</tbody>
</table>

1.0 credit in Arts or Social Sciences electives (may include NSCI 1000)

**Neuroscience - B.Sc. Combined Honours**

(20.0 credits)

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<td>BIOL 1104</td>
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<td>PSYC 1001</td>
<td>Introduction to Psychology I</td>
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<td>University Physics II</td>
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<td>MATH 1007</td>
<td>Elementary Calculus I</td>
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<td>MATH 1107</td>
<td>Linear Algebra I</td>
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</tbody>
</table>

* * CHEM 1001 and 1002 are strongly recommended for this program. Students may substitute these with CHEM 1005 and 1006 but will be required to obtain a grade of B- or better in CHEM 1006 in order to take BIOL 2200 and more advanced courses. Students completing CHEM 1005 with a grade of B- or better are encouraged to register for CHEM 1002.