# Core Courses

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<th>Year</th>
<th>Core</th>
<th>Additional</th>
<th>Electives</th>
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Please note: No more than 48 units may be Level I courses

## Level 1 Course List

- ASTRON 1F03
- BIOPHYS 1S03
- CHEM 1A03
- CHEM 1AA3
- COMPSCI 1JC3
- COMPSCI 1MD3
- COMPSCI 1XA3
- EARTHSC 1G03
- ENVRSC 1C03
- GEOG 1HE3
- MATH 1AA3
- MATH 1HB3
- MATH 1LT3
- MEDPHYS 1E03
- PHYSICS 1A03
- PHYSICS 1AA3
- PHYSICS 1C03
- PHYSICS 1CC3
- PHYSICS 1F03
- PSYCH 1X03
- SCIENCE 1A03
- LIFESCI 1E03
- GEOLG 2G03
- EARTHSC 2E03
- EARTHSC 2FE3
- EARTHSC 2F03
- EARTHSC 2G03
- GEOG 3G13
- EARTHSC 3E03
- ENVIRSC 3M03
- EARTHSC 3F03
- GEOLG 3HE3
- EARTHSC 4G03
- GEOG 4FH3
- EARTHSC 4C03
- ENVIRSC 4MT6A/B
- EARTHSC 4M03
- EARTHSC 4H03
- EARTHSC 4R03
- EARTHSC 4W03
- EARTHSC 4Y03
- EARTHSC 4VB3
- ENVIRSC 4W03
- ENVIRSC 4W03

### Course List 1

- BIOCHEM 2E03
- CHEM 2GA3
- CHEM 2GA3
- BIOLOGY 2A03
- BIOLOGY 2B03
- BIOLOGY 2C03
- BIOLOGY 2D03
- BIOLOGY 2E03
- BIOLOGY 3F03
- BIOLOGY 3ET3
- CHEM 2AA3
- CHEM 2A03
- CHEM 2O03
- CHEM 2O03
- CHEM 2G03
- CHEM 2F03
- CHEM 20B03
- CHEM 20B03
- LIFE SCI 2X03
- PSYCH 3F03
Honours Biology and Environmental Sciences is a flexible program that focuses on interdisciplinary studies among these two fields. Jointly offered by the Department of Biology and the School of Geography and Earth Sciences, this program enables students to select courses according to their interests; to develop broad knowledge, and understanding of the linkages between biological and environmental processes; and to apply these to questions of biological, biomedical, or environmental interests. This program prepares students for graduate studies, careers in industry or academic research laboratories.

ADMISSION NOTE
Students are strongly recommended to take CHEM 1A03 and 1AA3 in Level I.

Admission
Enrolment in this program is limited and possession of the published minimum requirements does not guarantee admission. Selection is based on academic achievement but requires, as a minimum, completion of any Level I program with a Grade Point Average of at least 5.0 including:

3 units from MATH 1A03, 1LS3
6 units BIOLOGY 1A03, 1M03 with an average of at least 6.0
3 units from ENVIR SC 1C03, EARTH SC 1G03 with a grade of at least C+
12 units from Science Level 1 Course List

See front for other course requirements

Notes Applicable to All Honours Biology Programs
1. The Biology and Environmental Sciences program allows students (especially those focused on ecology and conservation) to choose Biology and Environmental Science courses that reflect their own interests. Students are strongly encouraged to discuss their course selections with an academic advisor in the Department of Biology or the School of Geography and Earth Sciences.
2. Prerequisites for upper year courses must be checked carefully when selecting courses in Level II. Biochemistry and Organic Chemistry prerequisites exist in many upper year biology courses. Students are encouraged to take six units from CHEM 2E03, 2O3A, 2O3B, 2O3C, 2O3D.
3. Students interested in completing a thesis may take one of BIOLOGY 4C12 A/B, 4F06 A/B, or EARTHSC 4MT6 A/B in Level IV, subject to meeting the prerequisites. Students considering graduate studies are recommended to complete a thesis course.
4. Only one of BIOLOGY 4C12 A/B, 4F06 A/B, or EARTHSC 4MT6 A/B may be completed as part of the program requirements. Completion of EARTHSC 3RD3 in Level III is required preparation for EARTHSC 4MT6 A/B.

Notes Applicable to all Honours Earth and Environmental Sciences Programs
Earth and Environmental Sciences at McMaster encompass five major themes: Aqueous Environmental Geochemistry, Earth Sciences, Environmental Hydrology and Climate, Environmental Policy, GIS and Spatial Analysis. It should be noted that each thematic area has its own sequence of courses and prerequisites (See the Course Listings section in the Undergraduate Calendar). Students may elect to take some or all of the upper level courses from different areas. In addition, there is a set of courses encompassing research design, field work, internships, and the senior thesis or review paper.

AQUEOUS ENVIRONMENTAL GEOCHEMISTRY
EARTH SC 3CC3, 4CC3, 4N03, ENVIR SC 2Q03, 3O03

EARTH SCIENCES
EARTH SC 2E03, 2FE3, 2K03, 2T03, 3E03, 3K03, 3Z03, 4G03, 4J03, 4P03, 4T03, 4V03, GEOG 3SR3

ENVIRONMENTAL HYDROLOGY AND CLIMATE
EARTH SC 3CC3, 3W03, 4CC3, 4WB3, ENVIR SC 2B03, 2C03, 2W03, 3B03, 3U03, 4BB3, 4C03, 4W03

ENVIRONMENTAL POLICY
ENVIR SC 4EA3, GEOG 2E13, 3EC3, 3EE3, 4ET3, 4HH3

GEOGRAPHIC INFORMATION SYSTEMS (G.I.S) AND SPATIAL ANALYSIS
GEOG 2GI3, 3GI3, 3SR3, 3GV3, 4GA3, 4GS3, 4GT3

Students aiming to meet the academic requirements for professional registration of Geoscientists in Ontario can find additional information on these requirements on the website: https://www.science.mcmaster.ca/geo/undergraduate.html. Students are encouraged to consult with the academic advisor in the School of Geography and Earth Sciences to ensure proper selection of courses for professional registration.