SUSTAINABILITY, SCIENCE AND SOCIETY HONOURS (B.A. & SC.) (60 CREDITS)

Offered by: Geography (Faculty of Science)
Degree: Bachelor of Arts and Science
Program credit weight: 60

Program Description

The grand challenge of the 21st century is sustainable well-being; that is, to improve human well-being while maintaining the Earth's life-support systems. This B.A. & Sc. program provides the interdisciplinary and integrative knowledge and skills required to effectively understand and address this challenge in its multiple dimensions-scientific-technological, socio-economic, political-institutional, ethical, and human behavioural - and to chart a transition to sustainability. It is built upon three pillars:

1. Science and Technology, to provide an in-depth understanding of the underpinnings of the problems of concern along these dimensions;
2. Economics, Policy, and Governance, to understand how we can make the sustainability transition; and
3. Ethics, Equity, and Justice, to discuss why we need change, and the issues of equity and justice associated with taking action.

This program is a partnership between Geography and the Bieler School of Environment and will be administered through Geography.

The Honours program allows students to pursue a research project with the supervision of a McGill University faculty member, leading to an honours thesis. Applicants must have a minimum program GPA (GPA of all required and complementary courses taken at McGill) of 3.3 to enter the Honours program. Students must earn a B grade (3.0) or higher for the Honours Research course (ENVR 495 , 6 credits). Students are required to achieve a minimum overall CGPA of 3.0 at graduation, and a minimum Program GPA of 3.3 to obtain Honours. Honours students need to identify a supervisor, an honours project, and register in ENVR 495 . Honours students are encouraged to participate in 500-level seminars with graduate students.

Degree Requirements — B.A. & Sc. students

This program is offered as part of a Bachelor of Arts & Science (B.A. & Sc.) degree.

To graduate, students must satisfy both their program requirements and their degree requirements.

- The program requirements (i.e., the specific courses that make up this program) are listed under the Course Tab (above).
- The degree requirements—including the mandatory Foundation program, appropriate degree structure, and any additional components—are outlined on the Degree Requirements page.

Students are responsible for ensuring that this program fits within the overall structure of their degree and that all degree requirements are met. Consult the Degree Planning Guide on the SOUSA website for additional guidance.

Note: For information about Fall 2025 and Winter 2026 course offerings, please check back on May 8, 2025. Until then, the "Terms offered" field will appear blank for most courses while the class schedule is being finalized.

Required Courses (33 credits)

33 credits selected as follows:

Foundations of Sustainability

Expand allContract all

Course	Title	Credits
ENVR 201	Society, Environment and Sustainability.	3
GEOG 360	Analyzing Sustainability.	3
GEOG 401	Socio-Environmental Systems: Theory and Simulation.	3
GEOG 460	Research in Sustainability.	3

Honours Required Courses

Note: Students either take ENVR 495D1 Honours Research. and ENVR 495D2 Honours Research. (6 credits over consecutive terms) or ENVR 495N1 Honours Research. and ENVR 495N2 Honours Research. (6 credits over non-consecutive terms).

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Course	Title	Credits
ENVR 495D1	Honours Research.	3
ENVR 495D2	Honours Research.	3
ENVR 495N1	Honours Research.	3
ENVR 495N2	Honours Research.	3

Biophysical, Societal, Cultural, Institutional, and Ethical

Expand allContract all

Course	Title	Credits
ENVR 200	The Global Environment.	3
ENVR 202	The Evolving Earth.	3
ENVR 203	Knowledge, Ethics and Environment.	3
GEOG 203	Environmental Systems.	3
GEOG 408	Geography of Development.	3

Complementary Courses (27 credits)

Statistics

3 credits of Statistics from the following:

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Course	Title	Credits
AEMA 310	Statistical Methods 1.	3
BIOL 373	Biometry.	3

GEOG 202	Statistics and Spatial Analysis.	3
MATH 203	Principles of Statistics 1.	3
PSYC 204	Introduction to Psychological Statistics.	3

Economics

3 credits from the following:

Expand allContract all

Course	Title	Credits
AGEC 200	Principles of Microeconomics.	3
AGEC 201	Principles of Macroeconomics.	3
ECON 208	Microeconomic Analysis and Applications.	3
ECON 209	Macroeconomic Analysis and Applications.	3
ECON 225	Economics of the Environment.	3
ECON 230D1	Microeconomic Theory.	3
ECON 230D2	Microeconomic Theory.	3

Sustainability in Business

3 credits of Management from the following:

Expand allContract all

Course	Title	Credits
INSY 455	Technology and Innovation for Sustainability.	3
MGCR 460	Social Context of Business.	3
MGPO 440	Strategies for Sustainability.	3
MGPO 475	Strategies for Developing Countries.	3

18 additional credits of complementary courses chosen from three areas listed below. At east 9 credits must be at the 300 level or higher; students must choose at least 6 credits from each area (1, 2, and 3).

Area 1: Methods: Observation, Analysis, Modelling, and Management

Expand allContract all

Course	Title	Credits
ENVB 437	Assessing Environmental Impact.	3
ENVB 529	GIS for Natural Resource Management.[1]	3
ESYS 301	Earth System Modelling.	3
ESYS 500	Collaborative Research Project.	3
GEOG 201	Introductory Geo-Information Science.[1]	3
GEOG 302	Environmental Management 1.	3
GEOG 308	Remote Sensing for Earth Observation.	3
GEOG 314	Geospatial Analysis.	3
GEOG 333	Introduction to Programming for Spatial Sciences.	3
GEOG 351	Quantitative Methods.	3
GEOG 404	Environmental Management 2.	3
GEOG 414	Advanced Geospatial Analysis.	3
GEOG 495	Field Studies - Physical Geography.	3
GEOG 509	Qualitative Methods.	3
URBP 506	Environmental Policy and Planning.	3

1 Students may select either GEOG 201 Introductory Geo-Information Science. or ENVB 529 GIS for Natural Resource Management., but not both.

Area 2: Society, Economics, Policy, Ethics, and Equity

2A: Society, Economics, and Policy

3 credits from the following:

Expand allContract all

Course	Title	Credits
AGEC 333	Resource Economics.	3
AGEC 430	Agriculture, Food and Resource Policy.	3
AGEC 442	Economics of International Agricultural Development.	3
ANTH 206	Environment and Culture.	3
ANTH 212	Anthropology of Development.	3
ANTH 339	Ecological Anthropology.	3
ECON 313	Economic Development 1.	3
ECON 314	Economic Development 2.	3
ECON 326	Ecological Economics.	3
ECON 347	Economics of Climate Change.	3
ECON 405	Natural Resource Economics.	3
GEOG 210	Global Places and Peoples.	3
GEOG 216	Geography of the World Economy.	3
GEOG 303	Health Geography.	3
GEOG 310	Development and Livelihoods.	3
GEOG 316	Political Geography.	3
GEOG 409	Geographies of Developing Asia.	3
HIST 292	History and the Environment.	3
INDG 200	Introduction to Indigenous Studies.	3
POLI 350	Global Environmental Politics.	3
URBP 530	Urban Infrastructure and Services in International Context .	3
URBP 553	Urban Governance.	3

2B: Ethics and Equity

3 credits from the following:

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Course	Title	Credits
ENVR 400	Environmental Thought.	3
MGPO 450	Ethics in Management.	3
PHIL 349	Environmental Philosophy.	3
RELG 270	Religious Ethics and the Environment.	3
SOCI 325	Sociology of Science.	3

Area 3: Sustainability and Biophysical Processes

Expand allContract all

Course	Title	Credits
ATOC 214	Introduction: Physics of the Atmosphere.	3
ATOC 215	Oceans, Weather and Climate.	3
BIOL 308	Ecological Dynamics.	3
BIOL 310	Biodiversity and Ecosystems.	3
BIOL 465	Conservation Biology.	3
BIOL 540	Ecology of Species Invasions.[1]	3
BREE 217	Hydrology and Water Resources.[2]	3
CHEM 462	Green Chemistry.	3
ENVB 305	Population and Community Ecology.	3
ENVB 410	Ecosystem Ecology.	3
ENVR 540	Ecology of Species Invasions.[1]	3
ESYS 200	Earth-System Interactions.	3
ESYS 300	Earth Data Analysis.	3
GEOG 221	Environment and Health.	3
GEOG 272	Earth's Changing Surface.	3
GEOG 305	Soils and Environment.	3
GEOG 321	Climatic Environments.	3
GEOG 322	Environmental Hydrology.[2]	3
GEOG 372	Running Water Environments.	3
GEOG 403	Global Health and Environmental Change.	3
GEOG 470	Wetlands.	3
GEOG 530	Global Land and Water Resources.	3
GEOG 555	Ecological Restoration.	3
NRSC 333	Pollution and Bioremediation.	3

1 Students select either BIOL 540 Ecology of Species Invasions. or ENVR 540 Ecology of Species Invasions., but not both.

2 Students select either BREE 217 Hydrology and Water Resources. or GEOG 322 Environmental Hydrology., but not both.