

FOR APPROVAL

PUBLIC

OPEN SESSION

TO: UTM Academic Affairs Committee

SPONSOR: Professor Amrita Daniere, Interim Vice-Principal Academic & Dean
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DATE: May 3, 2023 for May 10, 2023

AGENDA ITEM: 6

ITEM IDENTIFICATION:

New Type 2 Certificate Program: Certificate in Sustainability

JURISDICTIONAL INFORMATION:

Under section 5.6 of its terms of reference, the Academic Affairs Committee is responsible for new certificates, as defined by the *Policy on Certificates (For-Credit and Not-For-Credit)*, and the closure of such certificates. An annual report on certificates shall be provided for information to the Committee on Academic Policy and Programs.

GOVERNANCE PATH:

- UTM Academic Affairs Committee [for approval] (May 10, 2023)

PREVIOUS ACTION TAKEN:

None

HIGHLIGHTS:

The Department of Geography, Geomatics and Environment at the University of Toronto Mississauga (UTM) is proposing to create a Category 2, For-Credit Certificate in Sustainability that will be open and applicable to all UTM undergraduate students. This certificate program will be administered by the Department of Geography, Geomatics and Environment (GGE) and

supports the U of T Sustainability Pathways Program by allowing students to fulfill the *Sustainability Scholar* pathway.

The certificate is composed of a total of 2.0 credits, with one 0.5-credit core course as its foundation: ENV210H5: Sustainability. This course will serve as an introduction to sustainability as a field of study and will ensure that all students completing the certificate program have the necessary foundation to be successful in their other sustainability courses and achieve the program learning outcomes. The remaining 1.5 credits are drawn from a list of options divided into 4 perspectives (Economic, Environmental, Political/Institutional, and Cultural/Social), with the requirement that *at least 2 perspectives* be represented in the options.

At UTM, the Certificate in Sustainability will complement the existing Sustainability Minor, offered by the GGE Department, as well as the Certificate of Completion in Global Sustainability, offered by the Institute for Management & Innovation (IMI). With the launch of this certificate program, UTM will be able to provide students with a suite of for-credit and not-for-credit offerings in sustainability to meet a variety of student needs and interests. These sustainability programs can be taken either as stand-alone offerings or in combination to allow students to further explore sustainability in different ways.

RECOMMENDATION:

Be It Resolved,

THAT the New Type 2 Certificate Program: Certificate in Sustainability, be approved, as detailed in the proposal dated April 18, 2023, effective September 1, 2024.

DOCUMENTATION PROVIDED:

- Proposal to create a New Type 2 Certificate Program: Certificate in Sustainability

University of Toronto Proposal to Create a Certificate in Conjunction With an Undergraduate Program

Certificates offered in conjunction with an undergraduate program are for-credit undergraduate certificates governed by the [Policy for Certificates \(For-Credit and Not-For-Credit\)](#).

Creation and closure of these certificates follow the protocols for minor modifications; are reviewed with the relevant undergraduate program; and are reported to the Provost through the Office of the Vice-Dean, Academic Programs. Successful completion of the certificate is recorded on the academic transcript. Students must be enrolled in a specific undergraduate program. ***Please consult with VPAP on the certificate's name ahead of governance.***

This template should be used to bring forward all proposals for new undergraduate, for-credit, certificates that will be offered in conjunction with an existing undergraduate degree program. The creation of the certificate follows a minor modification process and is reported to the VPAP office after approval.

Proposed certificate name: E.g., Certificate in Human Resources Management (Faculty of Arts & Science)	Certificate in Sustainability “(U of T Sustainability Scholar)”
Undergraduate degree(s) the certificate will be offered in conjunction with:	Honours Bachelor of Arts (HBA) Honours Bachelor of Commerce (BCom) Honours Bachelor of Science (HSc) Bachelor of Business Administration (BBA)
Undergraduate unit:	Department of Geography, Geomatics and Environment
Undergraduate unit contact:	Yuhong He Chair, Department of Geography, Geomatics and Environment Chair.utm.geography@utoronto.ca
Faculty/academic division:	University of Toronto Mississauga
Faculty/academic division contact:	Amrita Danieri Vice-Principal Academic & Dean vpdean.utm@utoronto.ca
Dean’s Office contact:	Marc Dryer Associate Dean, Academic Programs marc.dryer@utoronto.ca Yen Du Program & Curriculum Officer Yen.du@utoronto.ca
Version date: (Please change as you edit this proposal.)	April 18, 2023

1 Summary

The Department of Geography, Geomatics and Environment at the University of Toronto Mississauga (UTM) is proposing to create a Category 2, For-Credit Certificate in Sustainability that will be open and applicable to all UTM undergraduate students. This certificate program will be administered by the Department of Geography, Geomatics and Environment (GGE).

An Academic Certificate in Sustainability flows directly from a mandate set by the President’s Advisory Committee on the Environment, Climate Change, and Sustainability ([CECCS](#)), aimed at incorporating sustainability into the undergraduate curriculum. UTM’s Sustainability Strategic Plan ([SSP](#)), finalized and approved in December 2020, has also identified ambitions, goals, and targets for the following five pillars: Academic Programs and Curriculum, Research, Campus Engagement, Civic Engagement and Human Resources & Infrastructure. This certificate provides a

formalized way to address the Academic Programs and Curriculum pillar, by ensuring that students wishing to enhance their training in sustainability as part of their university experience can avail themselves of a structured, curated set of courses that, grouped together, achieve a broad range of learning objectives in sustainability education. [Goal 1.1 of the SSP](#) is that by 2030, 30 per cent of students will have graduated across all disciplines with a sustainability certificate/minor. The proposed certificate would complement the existing Minor in Sustainability offered by GGE, and would stand beside the not-for-credit [Certificate of Completion in Global Sustainability](#) offered through the Institute of Management & Innovation at UTM. Together these would allow students to follow one or more academic paths to engage with the ideas and practice that underpin sustainability as an area of study.

This certificate will align with, and support, the [CECCS Sustainability Pathways Program](#) in which students can complete any or all of the three programs: Sustainability Citizen, Sustainability Scholar, and Sustainability Leader. One of these three, the *Sustainability Scholar*, is satisfied when a student completes a certificate or Minor program in sustainability. Consistent with the FAS-led Sustainability Scholar initiative, this certificate is open and applicable to all UTM undergraduate students. In addition to being a key component in the Sustainability Pathways Program, the cross-disciplinary and flexible nature of the certificate will allow all participating students to develop a “sustainability lens” by engaging with sustainability in its scientific, political, social, cultural, and economic dimensions (Sustainability Strategic Plan: Fostering a Culture of Sustainability 2030, pg 7) .

The certificate is composed of a total of 2.0 credits, with one 0.5-credit core course as its foundation: ENV210H5: Sustainability. This course will serve as an introduction to sustainability as a field of study and will ensure that all students completing the certificate program have the necessary foundation to be successful in their other sustainability courses and achieve the program learning outcomes. The remaining 1.5 credits are drawn from a list of options divided into 4 perspectives (Economic, Environmental, Political/Institutional, and Cultural/Social), with the requirement that *at least 2 perspectives* be represented in the options. We have identified 72 courses as potential options (drawn from a list of courses identified by the Roundtable on Sustainability as having significant sustainability content). Of these courses:

- 17 courses fulfill the Economic Perspective
- 19 courses fulfill the Environmental Perspective
- 16 courses fulfill the Political/Institutional Perspective
- 20 courses fulfill the Social/ Cultural Perspective.

All courses that comprise the certificate are regular for-credit courses that students will count towards their program(s) and/or degree requirements. ENV210H5 - Sustainability has been restructured to be available for enrollment without a

prerequisite. The course is currently offered as a fully online course, so has the capacity to grow in response to demand for the certificate.

GGE also offers a Minor Program in Sustainability (ERMIN1287; Program Area: Environmental Management); however, the proposed Certificate is clearly differentiated from the Minor in several important ways. The Minor in Sustainability is much more directed: 2.5 credits are required and the course options for the remaining 1.5 credits are drawn from a much smaller and narrower pool of courses. The Minor in Sustainability is strongly aligned with our other programs in Environmental Management, whereas the proposed certificate is much broader in scope and more cross-disciplinary. Many students taking the Sustainability Minor will also qualify for the Certificate as part of their Minor, but it is not automatic. The “2-perspective” requirement for options in the Certificate should encourage students in the Minor to take a broad range of optional courses. The Institute of Management & Innovation offers a not-for-credit Certificate of Completion in Global Sustainability, which gives students another option to explore this subject. The IMI certificate is co-curricular as it relies on modules and workshops which are not part of existing undergraduate courses. This is seen as a complementary rather than a competitive program and serves to strengthen the suite of sustainability offerings at UTM.

2 Effective Date

September 1, 2024.

3 Academic Rationale

What are the academic reasons for the certificate, and how does it fit with the unit/division’s academic plans?

This Certificate program is part of the University-wide focus on Sustainability, articulated by the CECCS’s efforts to ensure “every student at U of T has the opportunity to incorporate sustainability learning into their program, regardless of the program they are enrolled in” (CECCS Annual Report, 2020). As such, this certificate represents UTM’s “Sustainability Scholar” component of the three-tiered Sustainability Pathways Program outlined by CECCS, aligning with similar certificates in the Faculty of Architecture, Landscape and Design, the Faculty of Applied Science & Engineering, the Faculty of Arts & Science, and the University of Toronto Scarborough (UTSC).

The certificate also addresses the UTM Sustainability Strategic Plan, including Goal 1.1:

“every undergraduate and graduate student, regardless of their degree program, will have access to sustainability education” (UTM’s Sustainability Strategic Plan, Fostering a Culture of Sustainability 2030).

More specifically, the proposed courses fit well into the four key educational attributes identified by the UTM Sustainability Pathways Working Group: (1) Sustainability Thinking – systems and critical thinking as well as global citizenship; (2) Sustainability Knowledge – from different perspectives: scientific, social and humanities; (3) Sustainability in Practice – experiential learning and change agents; (4) Sustainability Integration – integration of knowledge from different perspectives.

At its core, sustainability means meeting our own needs without compromising the ability of future generations to meet their own needs. It represents a paradigm shift in how we think about a myriad of issues. The Certificate in Sustainability will provide students the opportunity to develop a sustainability lens: an interdisciplinary toolkit for examining societal, cultural, economic, political, and environmental issues from a perspective that promotes ecological health, social equity, and development. This certificate will give them tools to apply a sustainability lens to their own discipline.

The sustainability certificate builds on GGE’s existing interdisciplinary programs in Environmental Management and Environmental Science. These programs already include courses in science, social science, and humanities departments, making GGE well-positioned to administer an interdisciplinary certificate that spans traditional disciplinary boundaries. While we currently offer a Minor in Sustainability, the certificate differs as it is intended for students in any UTM program interested developing an understanding of sustainability and how to apply a sustainability lens within their disciplines of study. The Minor in Sustainability requirements are more rigid, and are strongly aligned with our other programs in Environmental Management. In contrast, the proposed Certificate is much broader in scope and designed to allow students in any degree program to complete it. Many students taking the Sustainability Minor will also qualify for the Certificate as part of their Minor, but it is not automatic.

While we expect students in the Sustainability Minor and other Environmental Management and Environmental Science Specialists/Majors/Minors will be interested in the certificate, we also believe that students outside the UTM Environment (ENV) Programs will be interested as many are already taking courses that include sustainability content. Thus, the certificate is designed to complement students’ existing degree programs with a framework that incorporates multiple pathways across the sciences, social sciences, and humanities.

We anticipate that new courses with significant sustainability content may be adopted across UTM in the future. GGE will regularly review new course offerings for

potential inclusion into one of the four perspectives. The department has a long track record of working with multiple UTM departments for the ENV programs. GGE department's existing interdisciplinary programs and commitment to sustainability make it well positioned to support the certificate. We are committed to a sustainability paradigm that emphasizes ecological health, social equity and development, and the need for integrated thinking that takes a transdisciplinary approach to addressing environmental, social, and economic challenges.

Program learning outcomes:

PLO1: Students will acquire key concepts and theories about sustainability from more than one of the following perspectives: natural science, social science, and humanities perspectives.

PLO2: Students will examine information from a range of disciplines to explain how basic principles of environment, economy, society, culture, governance, and political institutions can be applied to sustainability in theory and practice.

PLO3: Develop and effectively communicate well-researched arguments via a variety of communication methods including written, oral, graphical, and/or quantitative approaches.

PLO4: Students will critically reflect upon the breadth and interdisciplinary nature of sustainability thinking to recognize the limitations and biases inherent in one's area of disciplinary focus

4 Need and Demand

- Provide a brief description of the projected interest in and demand for the proposed certificate.
- Provide details regarding the anticipated yearly in-take.

The Minor in Sustainability has been very successful since its introduction in 2019 (2020: 22 students; 2021: 32 students; 2022: 31 students) suggesting strong general interest. We anticipate that many students outside of the ENV programs will be interested in obtaining a certificate that can be achieved within the parameters of their chosen programs. We predict that 25 students will register for the Certificate each year and project a steady state enrollment of 50 students (allowing for attrition).

5 Admission Requirements

Provide the admission requirements for the certificate.

The proposed Certificate will be available to any currently enrolled UTM student who has completed a minimum 4.0 credits.

6 Program Requirements

This certificate will consist of a coherent sequence of for-credit undergraduate courses related to an identified topic or theme that may complement the degree program.

Describe the academic requirements of the certificate and mechanism for the assessment of student performance.

Clarify the certificate program length.

Is this certificate linked to a particular undergraduate program or degree? Please explain the relationship.

Completion Requirements: (2.0 credits)

ENV210H5 - Sustainability (required)

This foundational course will serve to introduce sustainability as a field of study and ensure all students completing the certificate program have the necessary foundation to be successful in their other sustainability courses and achieve the program learning outcomes.

Remaining 1.5 credits: options drawn from existing courses with sustainability content across all units at UTM

Total Credits = 2.0

The certificate is strongly cross-disciplinary, with 72 course options offered by 12 academic units (ANT, BIO, ICCIT, ECO, DLS, CPS, GGE, HIS, PHL, POL, SOC, DVS), including 7 joint offerings. Options include courses at the 1st year (2), 2nd year (15), 3rd year (36), and 4th year (19) level, meaning that students have ample opportunity to progress through the certificate as part of their other programs of study. Because all requirements/options are regular for-credit courses that count towards a student's other program(s) or degree requirements, no further mechanism is required to assess student performance other than credit completion.

7 Consultation

Outline any consultation undertaken with the Dean and chair/director of the relevant academic units and relevant programs.

The proposal aligns with the work of the CECCS during the 2017/18 and 2018/19 academic years. CECCS is coordinating the launch of similar programs across five divisions: Faculty of Applied Science & Engineering (UTSG); John H. Daniels Faculty of Architecture, Landscape and Design (UTSG); Faculty of Arts & Science (St. George campus); UTM and UTSC. FALD launched their new Certificate in Sustainability of the Built Environment in September 2020, while the FASE designated their Minor in Sustainable Energy and the Minor in Environmental Engineering as part of the Sustainability Scholar program to take effect in September 2020. FAS's and UTSC's certificates were launched in 2021.

Consultation was extensive, particularly in light of the recent introduction of IMI's Certificate of Completion in Global Sustainability (which, as a co-curricular certificate, fulfills the Sustainability Citizen portion of the Sustainability Pathway). Through this discussion it was agreed that the proposed GGE for-credit certificate and the IMI not-for-credit certificate could coexist and complement each other while offering students different approaches and formats to engage with this topic. The certificate has been discussed with Heather Miller, the then Vice Dean Teaching and Learning, and draft proposals have been sent to representatives (Chairs & Undergrad Advisors) of all nine departments included in the course list. Consultation beyond UTM primarily occurred through the CECCS Teaching and Learning sub-committee, which includes representative from other faculties who have or plan to develop Sustainability Scholar programs. We received positive support and incorporated minor feedback from all of these entities. Additional consultation beyond UTM occurred through the UTM Office of the Dean through the Dean's Offices within the Faculty of Arts & Science (St. George campus) and UTSC. Any feedback received was incorporated into the proposal, as appropriate.

8 Resources

Describe any resource requirements including, but not limited to, faculty complement, space, libraries and enrolment/admissions.

Indicate if the certificate will affect any existing agreements with other institutions or will require the creation of a new agreement to facilitate the certificate (e.g., Memorandum of Understanding, Memorandum of Agreement, etc). Please consult with the Provost's office (vp.academicprograms@utoronto.ca) regarding any implications to existing or new agreements.

This certificate program will be administered by the Department of Geography, Geomatics and Environment. The level of support and resource requirements will depend on enrolment. The foundation course (ENV210H5 - Sustainability) will be online, allowing for a relatively easy increase in the enrolment cap, should demand require it. There may be a need for additional TA resources. The administration of

the certificate (checking for completion upon graduation, etc.) will fall on the GGE Undergraduate Advisor, and this will fit within their current workload. No other resource requirements are anticipated. *The Department of GGE and the Office of the Dean will carefully monitor enrolment in the certificate program as well as supporting courses to ensure optimal enrolment and assess for student need and demand. Increases in courses and certificate program size will occur as appropriate and with the necessary resource support (teaching, staffing, technological, and physical resourcing).* The certificate does not affect any agreements with other institutions.

9 Oversight and Accountability: Review

- Category 2 certificates are subject to periodic reviews with the relevant undergraduate program. Please provide details. This will be tracked by the VPAP office.

As the Certificate in Sustainability will be housed in the Department of Geography, Geomatics and Environment (GGE), this unit will have the administrative and academic responsibilities to 1) inform and connect with other departments for regular updates to the list of eligible courses and 2) review the academic quality of the Certificate along with the mandated review of its academic programs.

The Certificate program will undergo UTQAP review on the same cycle as the Department of Geography, Geomatics, and Environment’s existing undergraduate programs.

10 Process Steps and Approvals

The pathway is summarized in the table below.

	Approving Body	Approval Date
Development & Consultation within Unit	Yuhong He Chair, Department of Geography, Geomatics and Environment	April 18, 2023
Consultation with Dean’s Office (and VPAP)	Marc Dryer Associate-Dean, Academic Programs	April 18, 2023
	VPAP sign-off	April 12, 2023
Divisional Governance Approval	UTM Academic Affairs Committee	May 10, 2023
Submission to Provost’s Office		May 2023
AP&P (report)		July 2023

Appendix A: Proposed Learning Outcomes

Certificates offered in conjunction with an undergraduate program will have a subset of complementary learning outcomes in relation to the program. Divisions are responsible for developing the outcomes and expectations for certificates in the context of divisional norms. Please outline in the table below how the design, structure, requirements and delivery of the certificate support the certificate learning outcomes and expectations.

Certificate Expectations	Certificate Learning Outcomes	How the Design/Structure Supports the Certificate Expectations
<p>Depth and Breadth of Knowledge</p> <p>Breadth of Knowledge: In the course of their studies, students will gain an awareness and appreciation of the variety of modes of thinking, methods of inquiry and analysis, and ways of understanding the world that underpin different intellectual fields. Students will engage in critical thinking and analytical skills – including with respect to equity, diversity, and inclusion – through courses within and beyond their core field(s) of study, across the humanities, the social and behavioural sciences, and the natural sciences.</p>	<p>PLO1: Acquire key concepts and theories about sustainability from more than one of the following perspectives: natural science, social science, and humanities perspectives</p> <p>PLO2: Examine information from a range of disciplines to explain how basic principles of environment, economy, society, culture, governance, and political institutions can be applied to sustainable development in theory and practice</p>	<p>The foundational course (ENV210H5) provides a solid grounding in historical perspectives on the concept of sustainability, and establishes a framework for the integration of environmental, economic, political/institutional, and social/cultural concepts relevant to sustainability. (PLO1)</p> <p>Students will explore their interests within the broader context of sustainability using their 1.5 FCE electives; students’ disciplinary specializations will add depth to their specific area of interest, complemented by these electives. (PLO2)</p>

<p>Depth of Knowledge: Students will attain depth of knowledge in their core field(s) of study through a progression of introductory, core, and specialized courses.</p>		
<p>Communication Skills</p> <p>Goals: Students will be able to effectively communicate and critically evaluate information, arguments, and analyses, using a range of modes of communication.</p>	<p>PLO3: Develop and effectively communicate well-researched arguments via a variety of communication methods including written, oral, graphical, and/or quantitative approaches</p>	<p>The interdisciplinarity of the certificate ensures that students will be exposed to a range of worldviews and perspectives. This develops the capacity to discuss and critique the contributions to sustainable development by actors at the international, national, provincial, municipal, corporate, not-for-profit, and individual levels. They will be required to express and clearly communicate these ideas and their understanding in a variety of ways. (PLO3).</p>
<p>Awareness of Limits of Knowledge</p> <p>Goals: Students will acknowledge and appreciate the limits of their own knowledge. They will also gain an awareness of the uncertainty, ambiguity, and limits of our collective knowledge and how these might influence analyses and interpretations.</p>	<p>PLO4: Critically reflect upon the breadth and interdisciplinary nature of sustainability thinking to recognize the limitations and biases inherent in one’s area of disciplinary focus</p>	<p>The broadly interdisciplinary nature of the certificate, with its elective cluster requirements, will develop in all participants a critical but receptive attitude towards potential solutions for local and global sustainability challenges. Students will be exposed to multiple worldviews & stakeholder perspectives, and thus will appreciate the limits and biases inherent in any process or body of knowledge. (PLO4)</p>

Appendix B: Proposed Calendar Copy

Certificate in Sustainability

Sustainability means meeting our own needs without compromising the ability of future generations to meet their own needs. The Certificate in Sustainability will provide students the opportunity to develop a sustainability lens -- an interdisciplinary toolkit for examining societal, cultural, economic, political and environmental issues from a perspective that promotes ecological health, social equity and development. Enrolment in the Certificate in Sustainability is open to all students completing programs at UTM. To complete the Certificate, a student must complete 2.0 credits, with 1.5 credits chosen from at least 2 of 4 Perspectives offered (Economic, Environmental, Political/Institutional, Social/Cultural). Upon completion "Certificate in Sustainability (U of T Sustainability Scholar)" will be recorded on the academic transcript as a component of the undergraduate degree. Students who complete the requirements of the Certificate in Sustainability are considered University of Toronto Sustainability Scholars. Students will not receive a separate parchment at Convocation.

2.0 credits are required.

1. Foundation: ENV210H5 or ENV310H5.

2. 1.5 credits chosen from at least 2 of the following four Perspectives:

- a) Economic Perspective: CCT433H5, ECO302H5, ECO303H5, ECO313H5, ECO315H, ECO320H5, ECO321H5, ECO324H5, ECO326H5, ECO333H5, ECO335H5, ECO336H5, ECO343H5, ECO362H5, ECO373Y5, GGR202H5, GGR209H5, GGR252H5.
- b) Environmental Perspective: BIO412H5, ENV201H5, (ENV205H5 or ENV305H5), ENV320H5, ENV332H5, ENV425H5, ENV495H5, ENV496H5, ERS101H5, ERS111H5, ERS312H5, ERS315H5, ERS401H5, ERS412H5, GGR214H5, GGR227H5, JGE378H5.
- c) Political/Institutional Perspective: ENV430H5, GGR207H5, GGR461H5, HIS318H5, HIS319H5, JEP351H5, JEP356H5, JEP452H5, JPE251H5, JPE252H5, POL346Y5, POL475H5, SOC343H5, SOC463H5, SOC465H5
- d) Social/Cultural Perspective: ANT357H5, ANT368H5, ANT370H5, ANT464H5, EDS220H5, EDS250H5, ENV311H5, GGR265H5, GGR385H5, GGR415H5, JBH471H5, PHL273H5, SOC304H5, SOC356H5, VCC207H5, VCC236H5, VCC410H5, WRI375H5.

Note:

Additional courses with sufficient sustainability content may be appropriate for the Certificate in Sustainability. Students must receive permission from the Academic Counsellor prior to course enrolment.

Appendix C: Course Descriptions

ENV210H5 Sustainability

(Formerly ENV310H5) The United Nations Commission on Environment and Development popularized the term sustainable development in its 1987 report, Our Common Future. How far have we come since then, as a global community, in implementing sustainability as a model for development? In this course we will examine the history, measurement, and present-day models and applications of sustainability and sustainable development in both the public and private spheres. Sustainability is an integrative concept that addresses social, cultural, political, and economic factors within the constraints of the biophysical environment.

Economic Perspective Course List

CCT433H5 • Sustainable Design

This course immerses students in sustainable design methodologies based upon whole systems analysis, applying the quadruple bottom line of people, profit, planet, and culture to understand and design for environmental issues and social change. During this course, students will apply the process and rhetoric of sustainable systems thinking to the re-design of an object or service applying such methodologies as cradle-to-cradle, 'design-for-environment', pricing based on full cost accounting, greening of the supply chain, and corporate responsibility. Throughout the course, students will examine the need for sustainable design through case studies, best practice analyses, and relevant readings.

ECO302H5 • World Economic History Prior to 1870

This course will focus on the economic success and failure of several key countries and regions from the start of the second millennium up to the early twentieth century. Topics include: pre-modern growth in China & India vs. Europe, the first industrial revolution, exploitation and Economics, international trade in the British Empire, the standards-of- living debate, the second industrial revolution. This course is part of the Certificate in Global Perspectives.

ECO303H5 • World Economic History After 1870

This course will focus on the economic success and failure of several key countries and regions during the twentieth century. Topics include: globalization, causes and consequences of interwar instability, a history of modern development (Japan, the Asian Tigers, India & China vs. Latin America), new institutional economics & new economic geography: African atrophy.

ECO313H5 • Environmental Economics

Application of economics to the field of environmental and natural resource economics. This course uses economic theory and empirical evidence to address important environmental issues, such as management of renewable and non-renewable resources, and different forms of environmental regulation and pollution control. The course will focus on market based instruments, such as tradeable pollution rights, and climate change problems.

ECO315H5 • Economics of Poverty

This course will focus on the microeconomic analysis of the causes and consequences of poverty. The emphasis will be on developing countries but we will also draw parallels to poverty in industrialized countries such as Canada. Psychological, cultural, social, and institutional factors will be considered along with an exploration of policy solutions. Some of the topics we will cover include inequality, nutrition, health, education, fertility, credit, savings, and entrepreneurship.

ECO320H5 • Economic Analysis of Law: Part 1

This course examines the economic basis for law and legal institutions. The topics covered include the microeconomic analysis of property rights, contract law, tort law, crime, and the limitations of economic analysis. The appropriate economic measures of damages in tort and contract cases will be discussed. No previous familiarity with the law is assumed. (This is an economic analysis of legal issues, not a course in law.)

ECO320H5 • Economic Analysis of Law: Part 2

This course is a continuation of ECO320H5 An Economic Analysis of Law: Part 1. The topics covered include the microeconomic analysis of corporate law, law and financial markets, bankruptcy law, intellectual property law, marriage and divorce law and the choice between regulation and the common law.

ECO324H5 • Economic Development

Economic development and transformation of the low- income countries of Latin America, Africa and Asia. Theory and policy analysis relating to the following economic issues in these countries: higher rates of economic growth, the role of the government in resource allocation, the industrial-agricultural sector interface, inward versus outward looking trade strategies, and the international debt problem. The following problems will also be addressed: food supply, domestic savings, tax revenue, foreign exchange, foreign direct investment, high rates of inflation, benefit-cost analysis and economic planning.

ECO326H5 • Advanced Economic Theory

Micro This course is an advanced analysis of microeconomic theory, including the behaviour of consumers under uncertainty; issues in poverty, inequality and social welfare; game theory and its applications to economics and political economy. This

course is recommended for students contemplating graduate studies. This course is part of the Certificate in Advanced Economics.

ECO333H5 • Urban Economics

This is a course on the application of economic analysis to four major areas of urban activity. The areas are land markets, housing and buildings, transportation, and public finance. In each area, we will consider the role of the government and attempt to understand the source of many current urban economic problems.

ECO335H5 • Public Economics I: Global Warming, Biodiversity Loss and Inequality

Public Economics I focuses on contemporary public policy questions. The goal of the course is to help students develop and apply analytical tools, such as cost-benefit analysis, to examine pressing policy issues of our time. Issues include responses to global warming, preserving biodiversity, combating growing inequality, and the regulation of addictive substances. Students will learn how to use empirical evidence to examine these issues. The course places a strong emphasis on discussion, debate, and effective writing about policy issues from an economics perspective.

ECO336H5 • Public Economics II: Advanced Policy Analysis

Public Economics II builds on Public Economics I (although the latter is not a prerequisite). The course focuses on externalities and market failure, and the appropriate role of government in response. Students will study the actual role of government in a variety of settings, with a view to identifying ways of improving economic efficiency and the quality of the environment (among other desirable ends) through different types of policy reform. The course should appeal to students who would like to learn more about applied microeconomic analysis and/or who are interested in public policy issues. The course will provide students with a useful set of microeconomic tools for analyzing public policy questions. Students will also learn basic empirical methods, develop effective writing skills, and apply the techniques learned to examine a variety of interesting current policy issues.

ECO343H5 • Labour Economics and Public Policy

This course uses both applied microeconomic theory and empirical analysis to examine labour markets in Canada. The course is especially focused on the link between research and public policy. Topics to be covered include: labour supply and demand, minimum wages, immigration, human capital, education production, inter- and intra- generational equality, and peer effects. At the end of the course, students should have a firm grasp of key policy issues involving Canada's labour market and be able to critique the quality of other empirical studies.

ECO362H5 • Economic Growth: Theory and Evidence

Differences in income per capita levels and growth rates across countries are large. Understanding the causes behind these differences is a fundamental question in economics. The main objective of this course is to apply economic theory to understand

and interpret empirical observations on economic development and growth. By the end of this course students will have a basic knowledge of the main facts characterizing economic development and growth over time and across countries, as well as the ability of theoretical models to account for these facts. The topics that will be covered in the course include the role of physical and human capital accumulation in growth and income differences, the reallocation of factors across sectors (structural transformation) and aggregate productivity, the importance of the misallocation of resources across heterogeneous firms in aggregate productivity. Key empirical applications include the growth performance of industrialized countries since World War II and the productivity slowdown observed in recent decades, the stagnation of living standards in many developing countries, and the role of automation and artificial intelligence in growth and development.

ECO373Y5 • The Environment: Perspectives from Economics and Ecology (Formerly ECO373H5)

The course examines the basic principles of environmental economics and ecology and the interaction between ecological and economic factors. It assesses alternative criteria and objectives for environmental policy. Problems associated with the implementation of environmental policy are analyzed and examined through case studies.

GGR202H5 • Geography of Canada

This course will spotlight how Canada, as a nation, is constructed through historical and contemporary systems of inclusions and exclusions. Taking a geographic approach to Canada means taking a look at the social construction of 'Canada' through the politics and production of spaces. We will explore how landscape, borders, regions, territory, land, and environment are imagined, organized, contested and fought for by individuals and communities.

GGR209H5 • Economic Geography

An introduction to the interaction of the economic, social and political institutions that determine the quality of life in a particular place. Subjects covered range from economic efficiency and social equity to the location dynamics of value chains. The emphasis of the course is on Canadian examples.

GGR252H5 • Retail Geography

Commercial activities are a significant and visible part of our social system. We are what we consume, and our consumption priorities describe our society. Consumption practices are mediated through the action of retailers and the preference of consumers. The course examines the organization of the retail economy and considers relationships between retail practices and environmental, ethical and social justice concerns. Likewise it explores how social, environmental and ethical beliefs of consumers influence their purchasing practices, the connections between consumer behaviour and the practices of retailers and the possibilities for developing a retail economy that better aligns with societal concerns for social justice, ethical production and environmental sustainability.

Environmental Perspective Course List

BIO412H5 • Climate Change Biology

Climate change is affecting life on earth at all levels from cells to ecosystems. As a result, shifts in the distribution of species, the timing of biological events, and large impacts on natural resources, agriculture, and forestry may be seen. This course explores past climate, predictions of future climate, impacts of climate change on biological systems, and potentials for adaptation. Mitigation of climate change impacts on biological systems will also be discussed.

ENV201H5 • Environmental Management (Formerly GGR234H5)

Environmental management builds on topics discussed in ENV100 and GGR111/112, by focusing on conceptual frameworks and specific tools that can be used to formulate environmental management goals and support decision-making. Case studies will be used throughout to highlight different approaches, focusing primarily on Canadian examples. Topics include ecosystem and adaptive management, environment impact assessments, and the role of stakeholders.

ENV305H5 • Sustainable Tourism

(Formerly ENV205H5) Tourism has long been an important industry around the world, but increasingly questions are being raised regarding the social and environmental sustainability of tourism. This course will look at the impacts (both negative and positive) that tourism has on the natural environment, society, and local economies. It will explore how tourism relates to mobility, globalization, recreation and outdoor activity, planning, the environment, cultural identities, protected areas, and wildlife conservation. This course begins with an introduction to tourism more generally and then focuses in on critical perspectives and the development of eco-tourism, cultural tourism, and volunteer tourism. As part of this course, students may have the option of participating in an international learning experience that will have an additional cost and application process.

ENV320H5 • Managing Our Waste Garbage

Archaeologist William Rathje once said, "Garbage isn't generic junk. It's elements of our behavior all thrown together." The history of human civilization is reflected in what societies have thrown away over the ages. But in recent decades both the quantity and types of waste generated by human activities have changed radically. In this course we will address the philosophical, social, and management challenges associated with waste in Canadian and international contexts, as well as examining some of the technological and scientific aspects of specific waste management problems.

ENV332H5 • Practicum in Environmental Project Management

This course, offered in collaboration with campus administrative offices of the University of Toronto Mississauga and various community partners, provides Environment Students with practical collaborative work experience in preparation for upper-year field courses and internships. Students will work in teams to develop skills in communication, project management, interdisciplinary teamwork, problem identification, report writing and formal presentations while working on an environmental project on campus or in the local community. This course is strongly recommended for Specialist and Major students in any of the Environment Programs.

ENV425H5 • Managing Urban Ecosystems

This course examines the ways people interact with and manage urban ecosystems. Socio-ecological systems, green infrastructure, environmental justice, ecosystems services, climate change mitigation and adaptation, and sustainability will be discussed in the context of urban ecosystems. Throughout the course, issues associated with bridging the gaps between the social and natural sciences, unique characteristics of urban ecosystems, and the role of individual decision-makers will be considered.

ENV495H5 • Restoration Ecology I

Restoration ecology is an emerging cross-disciplinary field of study that concerns human activities undertaken to promote the recovery, health, integrity and sustainability of degraded ecosystems. This course introduces the fundamental concepts of ecological restoration, addressing topics such as assessing ecosystem health, resilience, resistance and stability; community structure and biodiversity; invasive species; ecosystem processes and functions; societal aspects of ecological restoration (e.g., the relationship between social, economic and environmental sustainability).

ENV496H5 • Restoration Ecology II

The follow-up course to Restoration Ecology I, ENV496 will build on its theoretical foundations to focus on student involvement in a variety of restoration projects planned or underway by Credit Valley Conservation and other groups in Mississauga and the greater Credit Valley watershed. The emphasis here is on planning and implementation of restoration projects; good scientific design; understanding policies and procedures; identifying and working with stakeholders, etc. Occasional field exercises may be scheduled during regular class meeting times.

ERS101H5 • Planet Earth

We discuss the age and origin of the Earth, the nature of its deep interior, the origin of mountains, oceans, earthquakes and volcanoes, and show how these features are related in a unifying theory known as Plate Tectonics, that explains how the evolution of the Earth's surface is driven by internal processes. Practicals will include laboratory exercises devoted to the understanding and recognition of minerals, rocks and geological structures.

ERS111H5 • Earth, Climate & Life

Life as we know it is completely dependent on our planet. The Earth is an integrated system, where the ocean, atmosphere, life and planet interact with and affect one another. The evolution of the smallest organisms has drastically changed Earth's climate, and small changes in Earth's climate have a profound effect on the distribution of life. Understanding how organisms feed, breath, grow, and reproduce are integral to mitigating large-scale climate changes and organic cycles, and how this will affect the Earth as a system. Processes such as plate tectonics produces an ever changing surface, and has been a major control on how and when life evolved and flourished. After introducing how the Earth works, topics discussed will include how life on Earth has evolved, how large-scale geological processes affect climate and life and how ecosystems have changed in response to weather and climate change. We will also discuss the effect that our species has had on this planet; from the sudden shifts in stability of Earth's systems, to feedback cycles, to use of resources and sustainability.

ERS312H5 • Oceanography

The world's oceans cover approximately 70% of the Earth Surface and Canada has extensive coastlines along three major ocean basins. This course will provide an understanding of chemical, biological, physical and geologic aspects of the oceans. Emphasis will be placed on the geological and geophysical processes that form and shape the ocean basins and continental margins. In addition, this course will offer an insight into the paleoceanographic evolution of our planet and present day environmental threats such as pollution, habitat destruction, acidification and ocean warming. Even though this course does not include specific lab or tutorial sessions, three relevant exercises will be included.

ERS315H5 • Environmental Geology

This course will focus on Earth processes as they relate to human activities. Topics include sustainability global climate change on short and long timescales; groundwater flow and contamination/human engineering of Earth processes; geological aspects of pollution and waste disposal; and environmental impact of extracting/using minerals, energy, soil, and other Earth resources. A field trip will give students a first-hand experience in aspects of human/planet interaction.

ERS401H5 • Earth Resources

The formation and global distribution of precious and industrial mineral deposits are introduced. Exploration methods and mining practices are discussed in terms of environmental effects and issues. Basic aspects of the economics and strategic importance of mineral reserves are also covered. Weekly field trips are included.

ERS412H5 • Climate Through Time

The goals of this course are to discuss the geologic record of climate change and present an overview of the methods used to reconstruct the earth's climate history and the techniques used to determine the timing of environmental changes. Topics to be

addressed will include paleoclimatic reconstruction, climate and climatic variation, dating methods, and climate proxies. In addition, periods of past climate change will be highlighted with particular emphasis on climate change during the recent past. This will be put into perspective with modern day and future global change.

GGR214H5 • Global Weather and Climate

The climates of the globe are created from the kinds of weather systems which usually occur. This course surveys the weather systems of the globe and the geography which helps to transform them into regional climates. It uses just enough physics to show you how it all works and how we can make informed assessments about ideas on climatic change.

GGR227H5 • Ecosystems and Environmental Change

This course introduces the rapidly advancing fields of ecosystem science through the exploration of how ecosystems respond to climate change, pollution, and intensive natural resource management. The impacts from anthropogenic stressors on ecosystem functioning are often complex, with interactions occurring among plants, microorganisms, and physical and chemical environments. Lecture topics and case studies focus primarily on important representative Canadian ecosystems that also play vital roles in the resource sector including forests, agricultural land, wetlands and aquatic ecosystems.

JGE378H5 • Natural Hazards

Earth is a dangerous place and risk is an inherent feature of life on this planet. Some of the events and processes that we call "hazardous," such as earthquakes, volcanic eruptions, floods, tsunamis, cyclones, and forest fires are natural environmental processes. We define them as hazards only when they pose a threat to human interests. In this course we will examine natural hazards as well as some technological hazards -- their causes, their potential impacts on people, and their management and mitigation.

Political/Institutional Perspective Course List

CCT384H5 • Inclusive Design and Social Responsibility

The course provides an overview of inclusive design, a paradigm that empowers people of all ages and abilities. By analyzing products, buildings and communities from an inclusive perspective and making the needs of people the central focus of the design process this new paradigm seeks to develop form from function to increase the usefulness and responsiveness of our physical world for a wider and more diverse range of people.

ENV430H5 • Environmental Law and Policy

This course introduces students to the challenges and opportunities of environmental law and policy. Students will learn how legal systems can address increasingly complex

environmental challenges. This course will include an in-depth look at the toolbox of legal and policy instruments that decision makers have at their disposal to tackle major environmental problems. The focus is primarily Canada though international examples will also be touched upon. Case studies and examples will be used to connect theoretical and legal principals to real world situations.

GGR207H5 • Cities, Urbanization and Development

This course will introduce students to urban social processes, urban form and urban history. A particular emphasis will be placed on global urbanization, internal spatial and social structure of cities, as well as past and contemporary urban problems.

GGR461H5 • Advanced Urban Planning

This course will build on the material taught in GGR361H5, City Planning. This course will delve deeper into the scholarship related to urban planning and urban development more broadly such as planning for multicultural cities, ethics in planning and planning ethics, contemporary scholarly theories of planning (collaborative planning theory etc.), planning for more equal cities and planning for sustainability. P

HIS318H5 • Canadian Environmental History: Contact to Conservation

This course focuses on the interaction of people and the environment. Themes include environmental change as a result of: European exploration and settlement; the transfer of animals, plants and diseases; the impact of contact and the "Columbian exchange" on indigenous peoples; the fur trade; the lumber industry; the destruction of the bison, the reserves system, and immigrant settlers in the West; the emergence of the conservation movement in Canada.

HIS319H5 • Canadian Environmental History: Conservation to the Modern Environmental Movement

This course focuses on the interaction of people and the environment in the 20th Century. Themes include the environmental impact of industrialization, urbanization, and the revolution in transportation, and of resource development in the mining, oil, and gas industries; the destruction and preservation of wildlife; parks and the wilderness idea; the modern environmental movement; the contested world of modern agriculture and the food industry; the collapse of the fisheries; Canadian public policy, environmental law, and Canada's international role concerning the environment.

JEP351H5 • Comparative Environmental Policy

This course is an introduction to comparative environmental policy. The main focus of the course will be Canada-US-Mexico comparative policy around climate change, biodiversity, water resources, and pollution. Other countries may be examined as larger themes related to sustainable development and environmental justice will be covered in detail.

JEP356H5 • Environmental Justice

Environmental Justice is about the fair treatment of all people in the creation and implementation of environmental policies. It also provides a critical framework to analyze and understand inequalities of an environmental kind. These inequalities are often based around identities of race, class and gender, such that marginalized groups are made to bear the burden of environmental externalities like pollution. Why are First Nations in Canada less likely to have access to safe drinking water? Why are industrial plants often in low- income neighborhoods? After critical examinations of the theories and foundations of environmental justice, this course uses a case study approach to understanding the concepts and the ways in which it has shaped modern society.

JEP452H5 • Politics and Policy of Wildlife Conservation

This course is an in-depth analysis of conservation policy in Canada. The course begins with an overview biodiversity crisis facing the planet and then moves to an overview of Canada's approach to managing biodiversity across the country. We will carefully examine the federal Species at Risk Act as well as the provincial and territorial wildlife legislation. The remaining of the course will be aimed at making improvements to the Canadian strategy. During the course of the semester, the students will focus on the recovery of endangered species in Canada through the development of a recovery strategy for a specific species.

JPE251H5 • Introduction to Canadian Environmental Law and Policy I

This course serves as an introduction to environmental policy and law in Canada. The primary intent is to provide an overview of the political context in which environmental policy and law is made and implemented. The emphasis in this course will be on environmental policy. The course begins with an outline of the Canadian parliamentary system and policymaking process. A series of case studies, from biodiversity to climate change, are then explored as a way to see the policy process in action.

JPE252H5 • Introduction to Canadian Environmental Law and Policy II

This course builds on the themes and concepts introduced in JPE251H5. The primary intent is to provide an overview of the political context in which environmental policy and law is made and implemented. The emphasis in this course will be on environmental law.

POL346Y5 • Urban Politics

This course examines urban politics and policy problems in both a Canadian and comparative context. Students will be introduced to the key theories and concepts of urban politics scholarship as well as the important policy issues facing contemporary cities such as globalization, sustainability, immigration, and regionalism.

POL475H5 • Global Environmental and Sustainability Politics

This course examines the challenges faced by humanity in dealing with global environmental and sustainability problems and the politics of addressing them. Focuses

on both the underlying factors that shape the politics of these problems - such as scientific uncertainty, North-South conflict, equity concerns, globalization and production and consumption patterns - and explores attempts at the governance of specific global or transnational environmental and sustainability issues by state and non-state actors.

SOC343H5 • Urban Sociology

The course will introduce students to the core and cutting-edge scholarship in urban sociology. We will discuss theories and empirical studies related to the issue of urban politics, including the issues of food, housing, gentrification, and neighborhood change. Despite the focus on Canadian and American cities, this course also highlights global and transnational perspectives, such as immigrant experiences, “ethnic” restaurants, and forces of globalization that are intricately tied to urban lives. This course aims to open this discussion about how we connect the micro-level of our social interactions, consumption, and daily lives to macro-levels of progress, global economic forces, politics and culture.

SOC463H5 • The Sociology of Disasters

The modern world leans heavily on the assumption that organizations run smoothly, but often they do not and sometimes the consequences are disastrous. This course draws on a variety of sociological theories and explanatory frameworks to better understand how and why large scale disasters occur. The class will investigate high risk technologies, issues and problems related to organizational culture, deviance and misconduct, community dynamics and resilience, environmental justice, and social problems related to racialization, gender, class, and other inequalities.

SOC465H5 • Climate Change and Society

In this course a variety of classical and contemporary sociological perspectives will be deployed to understand the social context, factors and consequences of climate change. Possible topics include the political economy of the environment, environmental refugees, environmental movements, media representations of climate change, the social context and consequences of fracking, the politics of global protocols on carbon emissions, climate justice and social inequality, etc.

Social/Cultural Perspective Course List

ANT357H5 • Nature, People and Power: Topics in Environmental Anthropology

This course examines anthropological approaches to the environment and environmentalism. Through key readings on indigenous peoples and conservation, traditional ecological knowledge, community-based natural resource management, ecotourism and the human dimensions of climate change, the course explores the complex social, cultural and political encounters that produce 'the environment' as a resource in need of management.

ANT368H5 • World Religions and Ecology

A study of the responses of selected world religious traditions to the emergence of global ecological concerns. Key concepts and tenets of the traditions and their relevance for examination of the environment crisis. In some years, students may additionally have the option of participating in an international learning experience during Reading Week that will have an additional cost and application process.

ANT370H5 • Environment, Culture and Film

Our present environmental challenge constitutes of the most pressing areas of contemporary social, cultural, ethical and ecological concern. Acid rain, poisoned air, forest clear-cutting, ozone depletion, global climate change, toxic waste sites--the list goes on--all weigh heavily on our personal and intellectual lives. This course attempts to introduce students to both the scope and seriousness of present ecological concerns, as well as some core principles and concepts in the field of the intersection of environment and culture, through the lens of feature films. Themes such as the precautionary principle, urban/rural dualisms, ecofeminism, deep ecology, and the overwhelming burden placed on poor populations by environmental destruction are but a few of the areas which will be examined through the use of feature films, both classic and contemporary. We will do this in part by touching on some of the major writers and classic essays in the field, Class lectures will be supplemented by audiovisuals, guest lectures and class discussions.

ANT464H5 • The End of Coal: An Ethnographic Approach

“Coal is Dead” is a phrase often heard these days, and yet it is quite emphatically not. While coal prices are plunging, countries like China are currently building new coal plants all over Africa. Coal, in other words, is increasingly declared dead even as it is decidedly undead, raising the question of what social, political, cultural, and economic processes make this so-called transition so protracted and piece-meal. This class thus offers a social and cultural approach to the protracted energy transition, asking how the study of coal offers insight into questions of history, politics, race, class, and gender. In some years, students may additionally have the option of participating in an international learning experience during Reading Week that will have an additional cost and application process.

EDS220H5 • Equity and Diversity in Education

This course focuses on raising awareness and sensitivity to equity and diversity issues facing teachers and students in diverse schools and cultural communities. It includes a field experience which entails observation of, and participation in, equity and diversity efforts in a community organization. Exclusions: CTE200H5 Distribution Requirements: Humanities Total Instructional Hours: 36L

EDS250H5 • Indigenous Education

This course is open to all students from any discipline. Designed to increase opportunities to learn about education through a First Nation, Métis and Inuit perspective, the course will increase knowledge and awareness about pedagogies, learning approaches and educational experiences related to indigenous people living in Canada. In line with indigenous ways of knowing, this course will be structured with learning that involves reflecting on personal actions by looking at ways that indigenous models of education support social and community well-being. Distribution Requirements: Humanities Total Instructional Hours: 24L

EDS345H5 • Design Thinking Incubator: From Problem to Prototype

This course is open to all students on campus and provides an intellectual toolset for finding innovative solutions to complex problems. Students will learn to apply education theory to design thinking models in order to identify and solve real-world challenges facing their chosen discipline, whether in business, education, healthcare, etc. An iterative approach for testing, refining, and improving their idea will be used to create a working prototype of their proposed solution. This will demonstrate the idea's sustainability, scalability and viability, while taking into account ethical and legal implications. Distribution Requirements: Humanities Total Instructional Hours: 36L

GGR265H5 • (Under)development and Health in sub-Saharan Africa

Sub-Saharan (SSA) is one of the most diverse and intriguing regions in the world. In this course students will be introduced to contemporary development and health issues by examining historical experiences, social, political, economic and environmental processes. This approach will help highlight the vast diversity and address some of the many questions about the region including: What processes underlie famine and food insecurity? What are the underlying causes of the conflict and377Geography genocide in some regions? What processes explain spatial disparities in health, or regional and gender differences in HIV rates and the outbreak of rare diseases like Ebola? The course will rely on case studies to provide an understanding of the complexity in each topic.

GGR385H5 • Indigenizing Space and Place

This course looks critically at how places and people are come to be labelled as indigenous and how this labelling is tied to political, social, economic, and environmental systems that shape the spaces in which we all live. Furthermore, this course asks how spaces and places can be indigenized and what this means for social relations. We will study these processes at multiple scales - from international solidarity networks to nationalist claims on territory to an individual's sense of belonging. We will examine a wide range of topics related to these processes such as the geographies of education, the Truth and Reconciliation Commission, resource conflicts, media representations, identity formation and well-being. While we will be focusing on

indigenizing geographies within the context of Canada as a settler nation, we will also engage with how indigenous geographies shape and are shaped by nationalisms in other parts of the world. As part of this course, students may have the option of participating in an international learning experience that will have an additional cost and application process. This course fulfills 1-5 field day (to be adjusted according to student activity).

GGR415H5 • Geographies of Indigenous Health

Indigenous people of Canada - the First Nations, Metis and Inuit peoples - have very rich and diverse histories. However, common to most are large disparities in health compared to the non-Indigenous population. This seminar course will examine the health conditions of Indigenous peoples in Canada including a focus on the geographic, historic, and contemporary factors leading to health disparities and inequalities. The course will also examine health and well-being through an Indigenous worldview.

JBH471H5 • Worlds Colliding: The History and Ecology of Exploration, Contact, and Exchange

An examination of contact in world history through both an ecological and a historical lens. Precise topics will depend on the year, but the focus will be on the creation of global systems and ecological challenges that continue to shape our world. In some years, students may have the option of participating in an international learning experience during Reading Week that will have an additional cost and application process. Students interested in this course will need to be approved for enrollment by the department and course instructors.

PHL273H5 • Environmental Ethics

Environmental ethics is a relatively new development in philosophical thinking which focuses on the ethical and value questions arising from our relation to nature. Focal question of the area asks: Is the non-human world of ethical significance only insofar as it is connected with human well-being, or is ethically significant in itself? This course investigates and evaluates anthropocentrism, ecofeminism and radical biocentric theories of the deep ecologists.

SOC304H5 • Environmental Sociology

This course focuses on human-nature interactions, and the social processes that modify and threaten the natural world. Students develop a better understanding of environmental issues, the interrelationship between social problems and environmental problems, as well as the ways that humans themselves are part of nature.

SOC356H5 • Population and Society

This course will discuss interrelationship between human population and societal issues such as aging, reproductive health, gender, environment, and social policy. It will examine population structure and dynamics in relation to social, economic, political, and cultural elements of change in both developing and developed world. It will also

examine historical population policy developments and the diversified national policies in relation to policy formulation, implementation, and effectiveness.

VCC207H5 • Urban Sites and Sounds

Introduces students to histories and theories of urban spaces emphasizing the modern city. Drawing from history, architecture, geography, and media studies, the course explores how urban change is evident in the spaces, forms, and sounds of the modern city. Case studies of specific urban environments depending on instructor's research emphasis.

VCC236H5 • North American Consumer Culture: 1890-Present

Examines the history and theoretical treatments of mass consumerism in North American society. We will look at the relationship between the market and cultural politics, cultural production, and mass consumption. Specific topics include: the shift from mass production to mass consumption; the growth of department stores; the rise of advertising; the relationship of race, class, and gender to consumer capitalism; the development of product brands; and the emergence of global marketing.

VCC410H5 • The Collective Afterlife of Things

This fourth-year interdisciplinary seminar provides students with an opportunity to examine theories of art and artistic practice in the context of contemporary visual culture, environmental devastation, global warming, climate injustice, and species extinction. Readings are drawn from eco-criticism and philosophy, visual studies and political theory, accompanied by contemporary art, film, literature in order to critically examine the concepts of “collective,” “afterlife,” and “things.”

WRI375H5 • Writing about Environment and Ecology

Examines the evolving rhetoric of scientific, journalistic, legal and political writing about environmental issues. The course will consider eco-linguistic theory and eco-critical discourse analysis. Through theory and applied research, including primary research, and writing, students will consider protocols, research standards, and ethics in writing about environment and appraise current issues around the emerging language of sustainability.