

Geography & Planning Course Catalogue

Course availability varies year to year. Consult the Graduate Geography Course Timetable on the website at <http://geography.utoronto.ca/graduate-geography/timetables-courses/> for availability.

The GGR designation refers to geography courses, the JPG designation refers to joint planning-geography courses. In addition to the courses listed in this handbook, the department may offer Special Topic courses that will be listed each year in the timetable on the website.

Courses marked with an asterisk (*) within this handbook are taught by geography graduate faculty members and are offered through other departments. Enrolment in these courses is subject to available space and permission of the host department.

Last updated July 15, 2021.

Core and Reading Courses

GGR 1105H Human Geography Core Course (MA level)

(TBD)

This course will feature discussion of a number of issues pertaining to what life is like as an academic and some of the related skills and experiences that go along with it (e.g., the tenure process, journal peer review processes, tips on how to publish journal articles, research collaboration, conference presentations, teaching, the academic job market, relationship between academia and the wider world, public intellectualism, theoretical versus applied work, etc.). In addition, it will include engagement with non-academic career trajectories, including how skills and experiences from graduate school can contribute to (or hinder?) success in policy deliberations, activism, government and non-profit work, etc. It will also encompass an overview of non-profit work, major debates in the field, and of theory and explanation in geography. The course incorporates a workshop on proposal writing or research statement element for MA students.

The main difference between GGR 1105H and GGR 1110H is in the reading load but also the contrast in specific goals. Specifically, GGR 1110H emphasizes critical reading and thinking drawing on contemporary texts by or relevant to geographers, discussion of readings and the role of theory and evidence in explanation, and perhaps also paying explicit attention to different writing styles. GGR 1105H is more of a wide-ranging course but with some emphasis on practical survival tips for academic and related spheres of life.

GGR 1110H Issues in Geographical Thought and Practice (PhD level)

(TBD)

How do geographers go about addressing the challenges and problems of the world? How does the wider context (social, institutional, environmental....geographical!) shape the kinds of issues geographers examine, how these issues are framed, and how they are addressed? How do broad intellectual currents influence the work that is done in geography (and vice versa), and how do we understand the relationships between the broad intellectual currents and the “world out there”? Consistent with current emphasis in critical geography, all geographers, whether explicit or not, are using both theory and so politics in their work, along with some implicit or explicit problem statement in framing what they look at and what are they trying to explain. Even the choice of phenomena to examine is a political choice. Thinking carefully about these issues helps to understand the relationship between scholarship (geographical or otherwise) and the “real world”, while at the same time facilitating reflexive and careful consideration of research topics and approaches. This is, in our view, preferable to relying uncritically on policy or academic discourses and their prevailing theories, debates, questions, and approaches.

GGR 1200H Physical Geography Core Course

(TBD)

This is a mandatory core course for all first year physical geography (MSc and PhD) graduate students. The main objective is to introduce students to successful approaches in graduate school and for conducting scientific research. Specifically, topics will include: fellowship application, literature review, experimental design, presentation skills, proposal preparation, and disseminating scientific research. It also will provide an overview of physical geography as a discipline and include guest presentations by members of each of the four newly established physical geography research clusters. The course will foster intellectual interactions and build support within student cohorts and include mandatory attendance at departmental and university seminar series. Doctoral students who completed their Master's in Physical Geography in this department and who took this course as a Master's student are exempted from taking this course as part of their doctoral course work. Following discussion between student, supervisor, and the Associate Chair, Graduate, exemption from this course may also be granted to certain PhD students who have taken an equivalent course as part of their MSc program.

GGR1149H Readings in Selected Topics (MA/MSc level)

Available through individual faculty members.

GGR2149H Readings in Selected Topics (PhD level)

Available through individual faculty members.

Research Methods Courses

GGR1111H Social Research Methods

(K. Wilson)

This course provides students with an opportunity to develop or advance their understanding of social research methods through in-depth examination of research approaches, design, ethics, rigour, and a range of qualitative and some quantitative methods. Specific methods covered in the course include on-one-one interviews, focus groups, surveys, as well as emerging methods (e.g., photo voice, go-along interviews). The course also covers cross-cultural and Indigenous approaches to research. The goals of the course will be to provide students with the knowledge needed to effectively evaluate research, understand the process of research design, formulate research questions, and develop a research proposal.

JPG1120H Advanced Qualitative Research: Methodology and Epistemological Foundations for Planning and Geography

(K. Rankin)

This course arises out of the interest of doctoral students in Planning and Geography who desire to acquire rigorous qualitative research skills that would complement their research interests, assist in developing their dissertation proposals, and contribute to preparation for a career as educators and scholars in academia and beyond. The primary concern is to develop a deep understanding of a range of qualitative research methods and their epistemological foundations, with an emphasis on ethnographic approaches. Readings and discussions will be oriented to developing a philosophical understanding of the epistemology and ontology of knowledge so that students can develop a critical approach to research design. Readings reflect an understanding that doctoral planning and geography students commonly conduct ethnographic research in international settings, which requires an ability to read and interpret complex meanings, as well as attend to the politics of knowledge production and representation. The course will also address basic qualitative research methods, such as interviews and discourse analysis, and approaches to analysis (including the use of qualitative analysis software) – with a focus on critical approaches to knowledge production and researchers' positionality. The course is organized as a seminar with a heavy emphasis on collective analysis of course materials, and each student's involvement in writing reflections and classroom discussions on a weekly basis.

JPG1170H Statistical Testing and Analysis

(H. Bathelt)

This course advances important quantitative methods and techniques used in the analysis of empirical data in Geography, Planning and other Social Sciences. It aims to provide a comprehensive understanding of statistical methods for graduate students required to (i) quantify relations and dependencies between variables and (ii) conduct statistical tests in a variety of applications related to the Canadian urban system. The topics of the course include probability distributions, statistical testing and inference, as well as linear and some non-linear, simple and multiple regression and correlation techniques. The application of these methods through the use of statistical software (primarily SPSS) – both menu- and code-based – will also be part of the course. Canadian Census data comprising a large set of socio-economic variables for metropolitan/urban areas for the years 2001, 2006, 2011 and 2016 will be the basis for analyses conducted in class and for the assignments. Students are required to have some background knowledge of research design, basic descriptive statistics, testing and regression analysis at the undergraduate level. The course will help students develop an intuitive, as well as a more formal understanding of these methods. Although formal language will be used, the course does not require in-depth mathematical knowledge.

GGR1218H Quantitative, Open-Source Methods in Physical Geography Research

(T. Porter)

Quantitative research in physical geography and the earth sciences has increasingly relied on custom, open-source coding solutions in programming languages such as R and MATLAB in order to efficiently mine large datasets and analyze and visualize spatiotemporal phenomena. This course provides hands-on, workshop-based training in two of the most widely used programming languages in the geosciences, R and MATLAB. The workshops will focus on applications of data mining, exploration and management; working with self-describing, multi-dimensional data formats (e.g., NetCDF); publication-quality figures and data visualization; statistical analysis; linear regression modelling; time-series and signal processing; and mapping. Students will complete four assignments to hone their coding and problem-solving skills, and a final project that applies these skills to their research. This course is specifically aimed at students with little to no coding experience. Students interested in taking this course are strongly encouraged to contact the professor before the start of the semester to discuss your motivations in taking the course and research interests so that lessons can be customized to the broad interests of the class as much as possible.

JPG1400H Advanced Quantitative Methods

(TBD)

Spatial Analysis consists of set of techniques used for statistical modeling and problem solving in Geography. As such, it plays an integral role in the detection of spatial processes and the identification of their causal factors. It is therefore a key component in one's preparation for applied or theoretical quantitative work in GIScience, Geography, and other cognate disciplines. Space, of course, is treated explicitly in spatial analytical techniques, and the goal of many methods is to quantify the substantive impact of location and proximity on human and environmental processes in space.

JPG1828H Place and Indigenous Research

(N. Latulippe)

This course considers the politics, agency and ethics of place within a research context. It seeks to normalize the meaningful consideration and application of anti-colonial and Indigenous perspectives and approaches in geographical and environmental research, what Tuck and McKenzie (2015) call critical place inquiry. Intended not only for students working with Indigenous communities and engaging Indigenous research paradigms and critiques of settler-colonialism, this course asks what research design looks like when Indigenous sovereignty, land stewardship, and guest and Treaty responsibilities are taken seriously. Attentive to methodology, what Margaret Kovach (2009) describes as knowledge belief system and methods, students will reflect on their worldview, relations of accountability, and the politics of knowledge production on Indigenous lands. The first half of this

seminar course will focus on Indigenous conceptualizations and practices of place, agency, and coexistence. This will be followed by Indigenous, Indigenous-led, and anti-colonial research methodology, ethics, and methods/practice. Topics for discussion will include researcher preparation and relational accountability, place, space, and land, Indigenous knowledge and legal systems, research paradigms and ethics, land-based research methods, interpretive analysis and narrative.

***EES1119H Quantitative Environmental Analysis**

(G. Arhonditsis)

This course provides an introduction to the field of ecological statistics. Students will become familiar with several methods of statistical analysis of categorical and multivariate environmental data. The course will provide a comprehensive presentation of the methods: analysis of variance, regression analysis, structural equation modeling, ordination (principal component & factor analysis) and classification (cluster & discriminant analysis) methods, and basic concepts of Bayesian analysis. Emphasis will be placed on how these methods can be used to identify significant cause-effect relationships, detect spatiotemporal trends, and assist environment management by elucidating ecological patterns (e.g., classification of aquatic ecosystems based on their trophic status, assessment of climate variability signature on ecological time series, landscape analysis). The course will consist of 2 hr.-lectures/tutorials where the students will be introduced to the basic concepts of the statistical methods and 2-hr lab exercises where the students will have the opportunity to get hands-on experience in statistical analysis of environmental data. This course is offered through the Department of Physical & Environmental Sciences.

Physical Geography Courses

GGR1202H Sedimentation and Fluvial Geomorphology

(J. Desloges)

Elements of drainage basin morphology and hydrology, classification of rivers, stream patterns, and hydraulic geometry. Elements of open channel flow, sediment transport, channel change mechanisms and human impacts on river development. Exclusion GGR301H (STG).

GGR1215H Advanced Watershed Hydroecology

(J. Chen)

Hydrology and ecology are inter-related disciplines in Earth science. Hydroecology is a branch of ecology with emphasis on the effects of hydrological processes on living and non-living organisms and on their relationships in terrestrial and aquatic ecosystems. In particular, the redistribution of water over the landscape through surface and subsurface water flows regulates energy, mass and carbon fluxes from the land surface to the atmosphere, affecting the plant distribution and productivity as well as regional and global climate. In this course, a user-friendly, menu-driven hydroecological model will be used in practice to give a hands-on experience for modeling. Methods for handling spatial datasets, including those derived from remote sensing, will also be taught. About 2/3 of course time is devoted to lecturing the basic principles, concepts and related equations, and 1/3 for conducting a research project using the hydroecological model. The list of topics for the project will be suggested, but it can also be self-chosen. *Exclusion GGR413H (STG).*

GGR1216H Advanced Biogeochemical Processes

(I. Lehnherr)

Biogeochemistry explores the intersection of biological, chemical, and geological processes that shape the environment. In an era of unprecedented human-induced environmental and climate change, research in this field is advancing rapidly. This seminar course explores the biogeochemical cycles of major and trace elements including carbon, nitrogen, phosphorus, sulfur and mercury, and examines how humans alter these cycles resulting in many of the environmental issues we are faced with today, such as eutrophication, climate change, ocean acidification and pollution by toxic contaminants. Additionally, the course focuses on the mechanisms controlling biogeochemical processes at local to global scales, including interactions between abiotic and biotic factors, such

as climate, redox conditions, microbial metabolism and ecology. Topics covered include biogeochemical processes in the atmosphere (e.g., aerosols-ecosystems productivity interactions, black carbon), aquatic ecosystems (e.g., redox controls on sediment P release in eutrophic lakes) and terrestrial environments (e.g., soil respiration of legacy carbon in thawing permafrost), as well as some of the emerging techniques (e.g., stable-isotopes, -omics, paleo-proxies) used in biogeochemistry. *Exclusion: GGR406H (UTM).*

GGR1217H The Climate of the Arctic

(L. Brown)

High latitude environments are becoming the focus of increasing scientific attention because of their role in global environmental change. The implications of changes occurring to the sea ice and snow cover are far reaching and can have impacts on physical, biological and human systems both within and beyond the region. This course will provide a comprehensive examination of climates of high latitudes. Topics that will be covered include the Arctic energy budget and atmospheric circulation, the hydrologic cycle in the Arctic, the ocean-sea ice-climate interactions and feedbacks, modelling the Arctic climate system as well as an evaluation of recent climate variability and trends. *Exclusion: GGR484H (UTM).*

GGR1302H Advanced Hydrology and Water Quality

(T. Duval)

This course will take a hydrological perspective in examining the landscape controls on surface water quality. We will consider how the study of surface water and ground water hydrology lead to an understanding of stream water chemistry through the examination of hydrological flowpaths and the chemical interaction of water and the matrix/matrices through which it flows. An advanced understanding of hydrological processes will be emphasized. Pertinent field and laboratory techniques will be introduced. Pre-requisites: GGR 309H/315H, OAC Chemistry or equivalents. *Exclusion: GGR407H (UTM).*

GGR1315H The Cryosphere

(L. Brown)

Snow and ice dominate the Canadian landscape. There is virtually no area in Canada which escapes the influence of snow and ice. We skate on frozen ponds, ski down snow laden mountains, drive through snow blizzards and watch how ice jams in rivers cause rivers to swell and floods to occur. The duration and the thickness of snow and ice increase rapidly northwards, and glaciers are found in mountainous areas and in large parts of the Arctic region. Given that snow and ice impact heavily on the Canadian way of life, this course seeks to understand the dynamics of snow and ice in a hydrological context. This course will examine snow properties, snowcover distribution, glacier hydrology, melt runoff, and ice in its many forms (lake ice, river ice, sea ice, and ground ice). This course will also examine some of the recent observed changes occurring in the cryosphere regions of Canada. This course includes a 2 day field trip (participation can be discussed on an individual basis). *Exclusion; GGR317H (UTM).*

***EES1118H Fundamentals of Ecological Modelling**

(G. Arhonditsis)

This course provides an introduction to the rapidly growing field of ecological and environmental modelling. Students will become familiar with most of the basic equations used to represent ecological processes. The course will also provide a comprehensive overview of the population and dynamic biogeochemical models; prey-predator, resource competition and eutrophication models will be used as illustrations. Emphasis will be placed on the rational model development, objective model evaluation and validation, extraction of the optimal complexity from complicated/intertwined ecological processes, explicit acknowledgment of the uncertainty in ecological forecasting and its implications for environmental management.

***EES1126H Hydrology and Watershed Management**

(C. Mitchell)

This course focuses on the use of various isotopes and chemical factors for furthering our understanding of

complex environmental problems, ranging from the characterization of freshwater resources to contaminant transport in aquatic systems. Particular focus will be placed on how chemical and isotope tracer studies can be coupled with physical measurements to understand complex problems in hydrology, biogeochemistry, and contaminant transport. This course will cover fundamentals of environmental tracer chemistry through to recent case studies, advanced models and applications. This course is offered through the Department of Physical & Environmental Sciences.

***EES1128H Biophysical Interactions and Managed Environments**

(M. Isaac)

This course will focus on biophysical interactions at the advanced level, incorporating specialized concepts on plant-soil relationships, biogeochemical cycles, and ecosystem functioning in managed forests and agriculture. Students will be provided the opportunity to engage with course topics in seminar, field and laboratory format. Sampling and analytical techniques covered are in-situ soil and leaf-level gas exchange analysis, soil sampling, preparation and elemental analysis, and quantification of plant metrics. By the end of this course, students will have an understanding of the complexities and dynamics in managed environments, specifically ecosystem structure and function, soil fluxes including decomposition and mineralization processes, plant growth and nutrition, and production-diversity relationships. This course is offered through the Department of Physical & Environmental Sciences.

***EES1133H Climate Change Science and Modelling**

(TBD)

The course is designed to introduce the fundamental concepts underlying our current understanding of the climate system. The science of climate includes basic radiation physics and dynamics, which are the basis of modern climate modelling. The changes in the radiation energy budget will be examined in terms of natural variability and anthropogenic activities, in particular, greenhouse gases and their sources and sinks. Underlying physical processes that shape our climate will be explored e.g. solar variability, orbital mechanics, atmospheric and oceanic circulation, and volcanic and atmospheric aerosols. In addition, the types of climate modelling experiments performed with modern climate models and scenarios will be reviewed by focusing on the evidence for past and present climate change. The latest projections of future climate on a variety of temporal and spatial scales will also be presented and evaluated. This course is aimed at connecting the essentials of climate science and modelling, and training students to interpret the results of modelling experiments. This course is offered through the Department of Physical & Environmental Sciences.

***ESS1136H – Climate Change Adaptation**

(N. Klenk)

This graduate course will focus on adaptation science and practice at local, provincial, national and international scales. Students will learn about how climate change adaptation is perceived, studied and performed by civil society groups and governments through various theoretical perspectives: resilience theory, neo-liberal theory and critical theory. Students will also learn about different governance approaches that support adaptation: multi-level, poly-centric, experimental and anticipatory governance arrangements. Using case studies ranging from local adaptation planning in Canada to the IPCC's contributions to knowledge synthesis, students will gain a better understanding of the social, economic, political and ethical dilemmas at the core of adaptation science and practice. Combined lecture-seminar format. This course is offered through the Department of Physical & Environmental Sciences.

Environmental Geography Courses

GGR1404H Issues in Global Warming

(D. Harvey)

This course presents a comprehensive overview of the greenhouse gas/global warming issue, its relationship to

other atmospheric environmental problems, and policy options at the local to international scale. *Exclusion: GGR314H (STG).*

GGR1406H Sustainable Building Energy Use and Supply

(D. Harvey)

Energy use in buildings accounts for about 40% of total world energy use and fossil fuel-related greenhouse gas emissions. This course examines steps that could be taken to eventually supply the energy needs of the world's buildings entirely from renewable energy sources. The single most important step in that process is to dramatically reduce the energy requirements of new buildings compared to recently completed new buildings, and to achieve deep savings through retrofits of existing buildings, so much of the course will deal with energy savings opportunities in buildings. Having reduced energy requirements by a factor of 3-4 in this way, the next step is to meet the remaining energy needs through some combination of on-site renewable energy supply, through community-level renewable energy systems, or by provision of renewable electricity through the grid from regions where renewable energy is available on a large scale. As wind and solar energy are capable of providing the necessary energy after implementation of efficiency measures, the course finishes with a critical discussion of these energy sources. For both energy efficiency and energy supply, the focus is on the understanding of how the measures under consideration work, what their limitations are, and their economic costs. *Exclusion: GGR333H (STG).*

GGR1407H Efficient Use of Energy

(D. Harvey)

The course examines the options available for dramatically reducing our use of primary energy with no reduction in meaningful energy services, through more efficient use of energy at the scale of energy-using devices and of entire energy systems. Topics covered include energy use in buildings, transportation, industry, and agriculture. Each topic will cover (i) the underlying physical principles that determine the potential of and the limits to energy efficiency improvements, (ii) the difference in potential savings when focusing on individual energy using devices rather than entire energy-using systems, (iii) examples of efficiency improvements that have been achieved in practice in various countries around the world, and (iv) the cost and financing of energy efficiency improvements. As well, the role of the so-called rebound effect in eroding the energy-saving benefit of efficiency improvements will be discussed. *Exclusion: GGR347H.i*

GGR1408H Carbon-Free Energy

(D. Harvey)

The course examines the options available for providing energy from carbon-free energy sources: solar, wind, biomass, hydro, oceanic, and geothermal energy, as well as through sequestration of carbon from fossil fuel sources. The hydrogen economy is also discussed. For each carbon-free energy source, the physical principles, physical or biophysical limits, efficiencies, and other constraining factors are discussed, as well as examples of current applications, current and projected future costs, and possible future scenarios. The course concludes by combining the main conclusions for JPG 1407H concerning the prospects for reducing energy demand through improved energy efficiency, with the conclusions drawn in this course concerning the feasibility of large-scale carbon-free energy, to generate scenarios of future greenhouse gas emissions, showing the range of possible consequences for global mean temperature, sea level rise, and ocean acidification. *Exclusion: GGR1406H; GGR348H*

JPG1410H Institutional and Organizational Ecology

(K. MacDonald)

This seminar focuses on the role of institutions in structuring nature-society relations and environmental management. As property relations are restructured, and management responsibilities both centralized and decentralized in different parts of the world, institutions historically responsible for governing human-environment relations morph and are often displaced by spatially and ideologically distant realms of authority, including

international non- and inter-governmental organizations. Readings and discussion in this seminar focus on, among other topics, understanding the effect of institutions on local ecosystem dynamics, factors contributing to institutional resilience and vulnerability, institutional production of environmental knowledge, and methodological tools and approaches required to understand new and emergent institutional contexts of environmental production.

GGR1411H Nature and Justice in the Anthropocene

(N. Singh)

The current ecological crisis is calling into question our ways of being human and of relating to the rest of the world. The course addresses the challenge of rethinking nature-society relations and issues of justice in the Anthropocene. It asks whether the concept of the Anthropocene and its variants, helps power (or not) emancipatory politics and visions for future that socially just and ecologically abundant. We will draw from Indigenous ontologies, Environmental Justice movements, transition discourses, and aspirations for “living well” as well as contemporary theories of affect, more-than-human geographies and new materialism to query and reimagine nature-society entanglements. Topics covered include: environmental thought and activism, Environmental and Climate Justice movements, post-capitalist economic imaginaries and transition discourses.

JPG1421H Health in Urban Environments

(TBD)

This course explores ways of theorizing, evaluating, and improving health in urban areas. Through readings, group discussion, and individual and group inquiry, students will examine the key mechanisms by which urban environments (broadly defined) impact on the people living in them, and how - and to what extent - urban residents can in turn alter their environments to facilitate health. While this course is grounded in the practice-oriented discourses of urban planning and health promotion, a critical awareness of, and debate about, the strengths and limitations of various approaches to promoting and maintaining the health of urban residents in both developed and developing countries will be encouraged.

GGR1422H The Geography of Urban Air Pollution

(M. Adams)

This course will examine current local to global issues of urban air pollution. Topics covered will include understanding sources of air pollution, human health effects and study designs, stages of urban development and air pollution, mitigation approaches, global challenges and current air pollution issues by region. Measurement technologies and their applications, including low-cost sensors and regulatory grade instrumentation will be explored. Students will apply tools for spatial and temporal modelling of urban air pollution including dispersion modelling, spatial interpolation, remote sensing and land use regression modelling.

JGE1425H Livelihoods, Poverty and Environment in the Developing Countries

(C. Abizaid)

The livelihoods of the rural (and in some cases the urban) poor in the developing world are closely connected to the environment. Hundreds of millions of people, including many indigenous and other traditional peoples, rely directly upon natural resources, at least in part, for their subsistence and often, also, for market income. For many of them, access to such resources is a matter of survival-of life or death, a way of life, or the hope for a better future for them or for their children. Although the livelihoods of these peoples are sometimes regarded as having a negative impact on the environment, more recently, many of them are being heralded as models for biodiversity conservation and sustainable resource. A better understanding of how the rural (and urban) poor make a living - their livelihoods- is considered key to addressing issues of poverty and sustainable resource use, and also for environmental change mitigation and adaptation. This course seeks to develop an understanding of livelihoods among the poor in developing countries, with a focus on how assets, social relations and institutions shape livelihood opportunities in the present and into the future. More broadly, attention will be paid to the ways in which livelihoods are connected to the environment, but also to economic and political processes, with an eye to

gain insight on their potential for poverty alleviation, sustainable resource use, and environmental change mitigation/adaptation. The course will also explore emerging areas of inquiry in livelihoods research.

JPGR1426H Natural Resources, Difference and Conflict

(S. Mollett)

This course is concerned with the ways in which natural resource policies governing use, access, and control of resources are imbued with and reproduce conflict. Through a variety of case studies and theoretical engagements (feminist, postcolonial, anti-racist, Marxist, post-humanist), this course examines how natural resource conflicts are shaped by multiple kinds of power. In this course we discuss how such contests are more than political economic struggles. Through attention to the entanglements of environment, difference and struggle, a core aim of this seminar is to interrogate what is given and taken-for-granted within dominant narratives, instruments and institutions shaping land and territorial demarcation, water access and distribution, livelihood (in)security, oil and mineral extraction, biodiversity conservation, and struggles over urban citizenship. While this course looks to make visible how states and elites shape space through natural resource control, simultaneously, it attends to how people and their communities work to defend and remake their lives and livelihoods in the face of displacement and dispossession.

JPG1427H (Re)Localization of Food

(P. Desrochers)

The course will take an in-depth and critical look at current proposals to "re-localize" our food system through the (re)development of urban agriculture and shorter supply chains. It will survey recent policy reports and proposals and take a broader historical perspective on the rationale behind the development of the long distance trade in food products and inputs.

JPG1428H Greening the City: Urban Environmental Planning and Management

(T. Conway)

This course focuses on the recent efforts to 'green the city' by integrating vegetation and other green infrastructure into the built environment, including emerging research supporting such initiatives. We will examine greening goals associated with ecosystem service provisioning, individual and community well-being, environmental justice, and urban resiliency in light of climate change. The role of urban planners, municipal policy, private property owners, and other key actors will be examined in-depth. Throughout the course, issues associated with bridging knowledge gaps between the social and natural sciences, unique characteristics of urban ecosystems, and the role of specific decision-makers will be considered.

JPG1429H Political Ecology of Food and Agriculture

(M. Ekers)

Agrifood systems, connecting production and consumption, markets and various types of agrarian labour, are undergoing profound social and ecological change. Among these developments are large-scale land grabs, the financialization of food and farming, challenges to settler agriculture and the resurgence of indigenous food systems, the emergence of robust 'urban' and 'rural' alternatives to industrial and colonial agriculture. In trying to make sense of these changes, and the various social movements that have emerged in their wake, this course deploys the related paradigms of agrarian political economy and political ecology to analyze the forces and social relations that define land-based and food-focused transformations, both historically and in the contemporary moment. The course examines the often forgotten roots of contemporary debates in political ecology and food, that is, the enduring agrarian question. The agrarian question examines the extent to which capital has transformed agricultural production and the degrees to which producers have been able to resist dispossession and the industrialization and capitalization of agriculture. The course starts with foundational perspectives on the agrarian question from the early 20th century before discussing the renaissance of these debates in the 1970s and 1980s and the emergence during this time of political ecology as a critical approach to the study of food and land-

based practices. Updating these earlier debates the course tackles a number of defining contemporary developments, as noted above, that are reshaping the meaning and character of land and food.

ENV1444H Capitalist Nature

(S. Prudham)

This course will draw on a range of theoretical and empirical research materials in order to examine the particularities of what might be referred to as “capitalist nature”. Specifically, the course is concerned with three central questions: (i) what are the unique political, ecological, and geographical dynamics of environmental change propelled by capital accumulation and the dynamics of specifically capitalist forms of “commodification”? (ii) how and why is nature commodified in a capitalist political economy, and what are the associated problems and contradictions? (iii) how can we understand the main currents of policy and regulatory responses to these dynamics? This course is offered through the School for the Environment.

ENV1103H The U of T Campus as a Living Lab of Sustainability

(J. Robinson)

Sustainability is a growing priority for universities all over the world. Many are developing strong operational sustainability goals and targets, and are giving increasing emphasis to teaching and research on sustainability issues. Yet few have committed at the executive level to integrating academic and operational sustainability in the context of treating their campus as a living laboratory of sustainable practice, research and teaching. Such living lab approaches offer a large potential for universities to play a significant role in the sustainability transition. This course will explore and apply the living lab concept, in the context of operational sustainability at the University of Toronto. We will begin by looking briefly at the literature on university sustainability and the living lab concept. The bulk of the course will involve undertaking an applied research project on some aspect of campus sustainability, working in close partnership with operational staff at the University of Toronto. Students will develop the skills needed to work across disciplines and fields of study, and with non-academic partners. This course is offered through the School for the Environment.

JSE1708H Sustainability and the Western Mind

(J. Robinson)

This course will examine how attitudes towards human nature and non-human nature have changed over the period from Mesolithic times until the present in Western society. By reading and discussing historical arguments and contemporary documents we will attempt to uncover the underlying assumptions about the world that were characteristic of different periods in the history of Western culture. The underlying question is whether contemporary concerns about sustainability require fundamental changes in the way we conceive of ourselves and our environment.

Urban and Economic Geography Courses

JPG1501H The Political Economy of Cities

(K. Rankin)

The physical form of cities is an expression of social and economic processes that are nested and mediated at a number of different spatial scales. The reinvestment of inner city neighbourhoods is, for example, a simultaneous expression of global labour market restructuring, regional housing supply, and personal preference, among other factors. This course addresses the political and multi-scalar context of contemporary urban forms through a selective treatment of the relevant literature. It begins with a brief overview of conventional notions of urban structure, continues with more recent critiques of these ideas, and concludes with a focus on the impact of globalization.

JPG1502H Global Urbanism and Cities of the Global South

(R. Narayanareddy)

In this course we will critically examine “global urbanism” while paying explicit attention to how cities of global South have been studied, understood and depicted in global urban research. In the past two decades, influential policymakers have promulgated the “global cities” paradigm, which frames 21st century urbanism in global terms. According to the “global cities” paradigm “global” cities of the North, such as New York, London and Tokyo are at the pinnacle of globalization. In contrast, cities of the global South are consistently portrayed as “mega” cities that are disorderly, polluted, chaotic, ungovernable, and marked by infrastructure collapse. In short, cities of the global South are mega cities with mega problems. In this course we will begin by examining policy-oriented as well as academic literature in order to understand how the global cities paradigm was given coherence and propagated across the world.

JPG1504H – Institutionalism and Cities: Space, Governance, Property & Power

(A. Sorensen)

This course focuses on the role of institutions in shaping processes of urban change, governance and planning. The premise of the course is that cities are extraordinarily densely institutionalized spaces, and that the formal study of institutions, and processes of institutional continuity and change will be productive for both planners and urban geographers. The course reviews the New Institutional literature in Political Science, Sociology, Economic Geography, and Planning Studies, with a focus on Historical Institutional concepts, and develops a conceptual framework for the application of institutional theory to urban space. The claim is that an understanding of institutions is revealing of power dynamics in urban governance, is valuable for understanding urban governance and planning in international comparative perspective, and provides a valuable perspective on urban property systems.

JPG1507H Housing Markets and Housing Policy Analysis

(TBD)

The objective of this course is to provide an opportunity for in-depth analyses of housing, as both product and process, and to apply these analyses to concrete housing situations and current policy and planning problems. Two principal themes are emphasized: 1) assessments of changes in the structural and spatial dimensions of housing demand and supply, and alternative modes of housing provision; and 2) evaluations of housing policies and programs and their relationships to social and economic policies and urban planning. The latter will be undertaken primarily through the discussion of case studies of specific problems and policy issues, the former through a review of basic concepts on housing in the first few weeks of class.

JPG1508H Planning for the Urban Poor in Developing Countries

(A. Daniere)

This course covers public sector policies, programs and projects that target the urban poor in developing countries, particularly through attempts to improve their incomes through direct income-generating activities or employment and through the provision of basic environmental services. In addition the course examines planning for infrastructure services with an emphasis on the planning process.

JPG1510H Recent Debates on Urban Form

(A. Sorensen)

This course reviews three significant bodies of literature on the topic of urban growth and how to structure it, those of Growth Management, New Urbanism, and Sustainable City Form. Each offers a critique of recent patterns of urbanization, and proposes an alternate pattern of development, yet the problems identified and the approaches suggested vary widely. Participants will be encouraged to explore these differences.

JPG1512H Place, Politics and the Urban

(A. Walks)

The course examines the relationship between geography, politics, and governance. In particular, it seeks to interrogate the theoretical importance of place, space and urban form in the production of political and social values, practices, strategies, and discourses, and in turn, analyze the implications of the place-politics nexus for

understanding shifts in the direction and form of urban policy, governance and citizenship. The course begins with a broad examination of the theoretical bases for linking place and politics, particularly as this relates to the construction of urban and non-urban places, with literature drawn from a number of sources, including geography, urban studies, political science, and planning theory. The course then examines a number of specific cases, from gentrification as a political practice, to the politics of homelessness and anti-panhandling legislation, and the political geography of regional planning and municipal amalgamation, that inform and challenge our understanding of the relationship between place and political praxis.

JPG1516H Declining Cities

(J. Hackworth)

Much of planning and urban thought more generally is implicitly or explicitly oriented around the idea of growth—growth allows cities to be managerial, gives them room for error, salves intra-constituency squabbles, etc. In the face of decline, the most common planning or urban theoretical response is to engage in economic development (that is, to reignite growth). But what about those cities (or sections of otherwise growing cities) that have declined in population or resources and remained healthy, pleasant, places to live? Can we learn something from their experience that allows us to rethink the way that cities decline, or what the professional response to it should be? What about those cities, conversely which retain an infrastructure footprint that was intended for a much larger city? Can they be downsized in a planned way? If so, what would such an effort (mobilizing the state to sponsor planned decline) mean for the bulk of urban theory that suggests that it is the state's role to reignite growth?

JPG1518H Sustainability and Urban Communities

(S. Bunce)

This course focuses on sustainability and communities and neighbourhoods in cities in North America and Europe, with some exploration of examples of community-based sustainability in cities in the global south. The intention of this course is to examine academic and policy discussion on urban sustainability and the contemporary context and future of urban communities, and will address socio-political dimensions of urban sustainability found in human geography and urban planning literatures, rather than focusing on physical or technical applications of sustainability principles.

JPG1554H Transportation and Urban Form

(S. Farber)

The need to reduce automobile dependence and congestion has been argued widely in recent years, and urban form has been identified as a major aspect influencing choice of travel mode. The combined imperatives of sustainability, healthier cities, and worsening congestion has prompted an increasingly rich body of research on the relationships between urban form, transport infrastructure, and travel patterns, and an array of new methodological approaches to research them. This course critically examines this research and examines planning strategies that seek to influence travel through coordinated transport investment and land use and design control. Both regional and neighbourhood scale issues and strategies will be addressed. The geographic focus of the course will largely be metropolitan regions in Canada and the United States, but there will be opportunity to examine other national contexts.

JPG1558H The History and Geography of Cycles and Cycling

(R. Buliung)

The presence of cycling in cities has, for some, become the hallmark for the progressive city; progressive from a transport perspective. But how did we get to this point in the history of urban transportation and city life? Has it always been like this? Is more cycling a desirable outcome for everyone? Who cycles and who doesn't, and for what reasons? In one sense, this course addresses these very questions, while exploring several points of complex intersection between cycles and cycling and a range of social, economic, and political constructs/forces/processes

that often operate at a range of scales. Adopting an historical and geographical lens, we will also consider the uneven way in which cycling seems to have fallen into and out of favour, locally, nationally, and globally over time.

This course will explore cycling's past and present using a range of resources and experiences (including some actual cycling in the city!) using a mixture of lectures, student lead seminars and presentations, and fieldwork. The course begins in the City of Toronto, with a focus on infrastructure planning and injury. The course will make use of cycle planning documents and reports available through the City of Toronto. Students will use fieldwork to identify and trouble infrastructure implementation and use. The history of cycling technologies, planning and infrastructure then comes into view, followed by an examination of points of intersection between cycles, cycling and identity(s) scaled from the body to the nation. Study of cycling and active transport more broadly then shifts toward the Global South.

JPG1605H The Post-Industrial City

(J. Hackworth)

In the mid-twentieth century, most cities in the Great Lakes basin were oriented around some form of heavy manufacturing. Forty to fifty percent of the labour force in major cities was involved in manufacturing. Urban form, development, growth patterns, and social conflict were often related to, if not centered on, the manufacturing economy. Since then, all major cities have experienced at least some turn away from heavy centralized manufacturing. This shift has altered the form, social structure, and labor forces of cities throughout the region (and others like it in the Global North). Yet while most acknowledge this shift, a great deal of urban theory and planning practice still revolves around ideas developed to understand the industrial city. This seminar is devoted to better understanding the post-industrial city. We focus on the post-industrial thumbprint of four areas: 1) socio-spatial polarization; 2) ethno-racial conflict; 3) land use challenges; and 4) socially equitable economic development.

JPG1607H Geography of Competition

(TBD)

In a market economy, how do firms come to be at the places where they produce, distribute, or sell their goods or services? How, when, and why does competition among firms as well as the impact of firm sitting on the sitting of their suppliers and customers, lead to localization (clustering) of firms in geographic space, the growth of some places (e.g., some cities or districts), and the decline of others? Such questions are central to an area of scholarship known as competitive location theory. A spatial (regional) economy incorporates "shipping costs" which include costs related to search, freight, insurance and brokerage, storage, installation and removal, warranty and service, and arbitrage profit. As a result, the effective or delivered price of a firm's products or inputs, inclusive of shipping costs, may well vary locally. This course focuses on how, as a result of competition, location and clustering shape and are shaped by local prices.

GGR1610H Geography of Finance and Financial Crisis

(A. Walks)

The rupture in the global economy following the collapse of Lehman Brothers in the United States brought to mainstream attention the important role played by finance, as well as the vulnerable ways that the global economy is linked together through financial instruments. This course seeks to understand the world of financial flows, intermediaries, and instruments, and how these may be related to the uneven geography of mortgage foreclosures, real estate inflation and deflation, bank bailouts, and government austerity programs. It explores how this geography of finance might be related to the production of financial crises, and how the global geography of international finance relates to the public finances of nations and municipalities, pension and hedge funds, and individual investors. The course begins by exploring the workings of international finance, and the literature on the geography of financialization and the globalization of finance. It then moves to examine the history and geography of financial crises, including both the current crisis and the great depression, to consider the different theories of financial crisis emanating from disparate political-economic-geographical perspectives, as well as the divergent

policy implications that flow from such theories. The course then explores the literature regarding the localized effects of the geography of finance, from the cultural politics of homeownership, to the geography of sub-prime lending and foreclosures, deepening unemployment in European cities, and the geography of credit card debt, bankruptcies and defaults.

JPG1615H Planning the Social Economy

(K. Rankin)

What would it take to build a 'social economy,' an economy rooted in the principles of social justice, democratic governance and local self-reliance? What are the progressive and regressive implications of such an undertaking? JPG 1615 will explore these questions both theoretically and practically. Theoretically, with recourse to some canonical and more recent writings about the interface between 'society' and 'economy'. Practically, the course will look at what role municipal governments could and do play in building the social economy. The case of social housing in the GTA serves as an example—as well as a context for learning about key tools in local economic development. The course will also consider how communities and neighbourhoods are growing increasingly active in developing alternative economic institutions, such as cooperatives, participatory budgets and community development financial institutions in order to institutionalize the social economy at the local scale.

JPG1616H The Cultural Economy

(D. Leslie)

This course examines the so-called "cultural turn" in economic geography, often referred to as "the new economic geography". We will begin by considering various ways of theorizing the relationship between culture and economy. After reflecting upon the historical antecedents of contemporary understandings of this relationship, we will explore selected themes in the cultural economy literature such as cultural industries, consumption, economic discourse, work cultures, governmentality and commodity chains/actor networks.

JPG1617H Organization of Economies and Cities

(TBD)

This is a course about the urban economy. The emphasis is on understanding how agency (initiative) leads political actors in a state to make possible the conditions that give rise to an urban economy. I review and re-interpret fundamental models that explain how the operation of markets in equilibrium shapes the scale and organization of the commercial city in a mixed market economy within a liberal state. The course reviews classic models of the urban economy that are based on the work of Alonso, DiPasquale & Wheaton, Getz, Herbert & Stevens, Hurd, Lowry, Mills, Muth, Ripper & Varaiya, and Schlager, among others. The antecedents to these models can be traced back to the work of Andrews, Beckmann, Christaller, Clark, Cooley, Haig, Leontief, Polanyi, Power, Reilly, Thünen, Samuelson, and Tiebout. These models assume appurtenant property, contract, and civil rights. As befits the liberal state, such models also presume that individuals and firms are purposeful and have autonomy in these markets. These models raise questions about how and when does governance enable and facilitate markets, autonomy, and the urban economy in this way. Overall, the perspective of this course is that it is helpful to see governance (and hence the urban economy) as outcomes negotiated by political actors motivated by competing notions of commonwealth and aggrandizement.

GGR1620H Institutional and Evolutionary Economic Geography

(J. Zhang)

Both institutional and evolutionary perspectives have recently exerted enormous influence in economic geography, generating an explosion of research programs and publications. However, the literature remains highly fragmented, and there is still much ambiguity as to what it means to say that economic geography is institutional or evolutionary. Furthermore, evolutionary economic geography is yet to be made compatible with institutional and political perspectives, so that a multi-layered and multi-scalar evolutionary process can be conceptualized. This graduate seminar examines the frontier of the interdisciplinary literature on institutions and economic evolution. It is designed to develop a close dialogue between institutional and evolutionary economic geography,

as well as between economic geography and other heterodox economics. It seeks to help students develop a critical angle to the existing literature, and a clear conceptualization of institutions and evolution from a geographic perspective.

JPG1621H Innovation and Governance

(H. Bathelt)

The course discusses a broad range of topics related to innovation and governance including (i) technological change and its social and economic consequences, (ii) the spatial effects, which result from this, and (iii) necessities for innovation policies at different territorial levels. As the international competitiveness of industrial economies cannot be based on cost advantages alone, future growth in the knowledge-based economy will increasingly rely on capabilities related to knowledge generation and innovation. As a consequence, questions of performance in innovation and support policy will become decisive at the firm, regional-state and national-state levels. The seminar is divided into three main parts. The first part deals with conceptual foundations of innovation, and explores the connection between economic learning, knowledge creation and innovation processes. In the second part, innovation and governance are investigated in territorial context, ranging from national and subnational innovation systems to permanent and temporary clusters and varieties of capitalism. The third part of the course discusses aspects of transnational innovation processes and multilevel governance challenges.

JPG1660H Regional Dynamics

(R. DiFrancesco)

The space-economy has always been characterized by polarization across many dimensions. As a result, regional economic change has proved very difficult to fully explain using conventional theories and methods. This course examines the theoretical linkage between related trends of globalization, vertical disintegration, technological and organizational innovation, regional specialization, and the locational behaviour of firms. We will focus on the seemingly counter-intuitive finding that regional economic change in a time of increasing global interdependence is only becoming more dependent on the local context. Topics will include evolutionary economic geography, path dependence, economic clusters, learning regions, the role of institutions, knowledge spill-overs, and the geography of innovation, among others. We will see why economic activity is becoming ever more concentrated in space even as it globalizes. Exclusion: GGR431.

JPG1814H Cities and Immigrants

(V. Kuuire)

Globalization processes and changes in immigration laws in recent decades have led to an upsurge in cross-border movement of people and ushered in sequential waves of immigration from various regions of the world to Canada and the U.S. Cities and their adjoining metropolitan areas are the biggest beneficiaries of these changing dynamics where immigrants are important contributors to economic growth and social reinvigoration. This course will examine the dynamics and changing patterns of immigrant integration in cities and urban locations. Topics of focus will include theories of immigrant integration, socio-spatial patterns of immigrant settlements in cities, labour market participation, socio-cultural identity formation and transnational engagements. The course will rely on contemporary examples and case studies to provide a deeper understanding of how immigrants are shaping dynamics within cities.

JPG1820H Disability and the City

(R. Buliung)

What is disability? And, what do we think we know about it? What is everyday life like for persons with disabilities in the city? What does it mean to think about disability intersectionally? And, what, if any, gap is there between the rights of persons with disabilities and how systems, services, and institutions function (or don't)? These are just some of the questions that we will address in this course. For many of you, this is likely your first course about disability. To help navigate this space, we begin by working through different ways of conceptualizing disability – i.e., the “models” of disability. Here, we will consider everything from theological perspectives on

disability, to the social model and beyond. Within this early part of the course, we will take on and work through fairly recent ontological and epistemological debates regarding the “definition” and “description” of disability. From there, we will move closer to the everyday lives of persons with disabilities in the contemporary city. We will not necessarily limit our analysis to the Western context, and will consider disability within a global cities context. In the second half of the course, we will work through and learn how to navigate the terrain of disability rights, moving ever closer to disability and the city. Here, we will use case studies (from education, to school transport to bike lanes and active transport infrastructure more broadly), and – COVID willing, experiential learning, to explore the realization (or lack thereof) of disability rights within the context of the institutional, material, and social dimensions of cities.

GGR1821H China Development Seminar

(A. Boland)

This seminar focuses on the question of ‘development’ in the context of contemporary China, with particular attention to the development logics guiding change in urban and rural landscapes from the 1950’s to the present. We will examine the institutions, initiatives, and narratives that have reshaped built and natural environments. We will also examine the structures of (im)mobilities and community in relation to the urban and rural – as sites and governing categories. Finally, we will explore the question of the ‘global’ in China’s development, both in the earlier socialist periods and in the present, a period marked by rapidly expanding forms of direct engagement with development elsewhere.

Cultural/Historical/Social Geography Courses

JPG1503H Space, Time, Revolution

(K. Goonewardena)

This graduate seminar examines the relations between critical spatio-temporal and socio-spatial thought and new conceptions of radical politics. Its references are twofold: on the one hand, it surveys the recent attempts of such thinkers as Alain Badiou, Slavoj Žižek, Daniel Bensaïd, Jacques Rancière, Giorgio Agamben, Bruno Bosteels and Peter Hallward to re-theorize revolution in the face of global liberaldemocratic hegemony; on the other hand, it interrogates their conceptions of ‘event’, ‘situation’, ‘dissensus’, ‘exception’ and ‘communism’ in the historical court of actual revolutionary experiences produced by anti-colonial and socialist politics, especially at such moments as 1789, 1791-1803, 1848, 1871, 1917, 1949, 1968. The readings for this course will therefore draw on both contemporary theoretical texts and classic accounts of revolutionary subjectivity that highlight its spatio-temporal and socio-spatial dimensions, in the vein of Kristin Ross’s *The Emergence of Social Space: Rimbaud and the Paris Commune* as much as Frantz Fanon’s *The Wretched of the Earth*.

JPG1506H State/Space/Difference: Understanding the New Social Geography of the State

(S. Ruddick)

This course focuses on the new social geography of the state and social policy. A new “geography” of the state is emerging with the downloading of services to sub-national levels of government and the rise in importance of supranational institutions. This has raised questions about the hollowing out of the nation state and the real and imagined impacts of “globalization” on the politics of redistribution. A new “social geography” of the state is emerging as the “rescaling” of social policy brings with it increasing uncertainty about normative basis for policies of redistribution— as institutions contend with economic, cultural and political differences across (and within) national borders. The course focuses on approaches within political economy, with particular emphasis on the regulation school. Examples are primarily Western, with emphasis on Europe, the European Union and North America.

JPG1511H The Commons: Geography, Planning, Politics

(S. Ruddick)

Concurrent with the shift from a Keynesian to a neo-liberal welfare state, community groups, ngos and a range of

institutions are exploring different mechanisms for collective and collaborative community. New in the “how to” toolkit are discussions around the practice of “commoning.” Once thought to be restricted to forms of common land such as community land trusts, the new commons cover everything from public infrastructures such as libraries and water, to information technologies to community gardens. In this course we will explore the philosophies and practices around the emergence of a new commons as it is distinguished from other forms of collective distribution of goods such as “public goods,” “collective consumption” and “collaborative consumption.” Questions we will explore include the limits and possibilities of a commons for social transformation or cooptation, the challenges of scaling a commons.

JPG1520H Contested Geographies of Class-Race Formation

(M. Hunter)

How are spatial, racial, and class inequalities produced and contested in mutually constituted ways? Why are class inequalities always spatial and racial inequalities? We begin with two theorists who have had an enormous influence on writings on class: Karl Marx and Pierre Bourdieu (a third, Antonio Gramsci, will be considered through Stuart Hall). We follow this with key writings in the geographical traditions by Ruthie Gilmore, David Harvey, and Doreen Massey. I give priority to the race-class-power nexus through the work of Stuart Hall, Frantz Fanon, C L R James, Cedric Robinson, W E B Du Bois, and a number of exciting and relevant monographs.

JPG1522H Production of Space

(K. Goonewardena)

This seminar investigates articulations of aesthetic, technological and political forces in the production of space—understood as the triad of ‘conceived space’, ‘perceived space’ and ‘lived space’, following Henri Lefebvre’s influential theorization in *The Production of Space*. With reference to intellectual resources drawn from several strands of critical theory, space figures here as something radically contested, and dialectically related to social relations. The work of artists, architects, planners, geographers, scientists, technocrats and politicians, along with influential conceptions such as ‘modernism’, ‘avant-garde’, ‘culture industry’, ‘spectacle’, ‘alienation’, ‘governmentality’, ‘subjectivity’, ‘ideology’, ‘decolonization’, ‘utopia’ and ‘revolution’ will feature prominently in this course, in order to theorize how space and society are co-produced, and why various political projects—capitalist, nationalist, fascist, colonial, socialist, feminist—are also spatial projects. As such, the prime objective of this course will be to develop critical-theoretical as well as conjunctural awareness of aesthetic, technological and political mediations of the socio-spatial dialectic—with special attention to the work of architects, urban designers, planners and geographers in the context of subaltern citizens pursuing their ‘right to the city’.

JPG1672H Land and Justice

(T. Kepe)

Land carries a heavy weight of historical meaning. It has two broad meanings: the landscape valued for its natural resources (e.g. food production, raw material, living space etc.) and the territory with which a particular people identify. These meanings of land have implications on why anyone has interest in particular land, and how it is held and distributed. Similarly, how land was acquired and by whom, as well as how it is currently used, can determine its multiple meanings to different people and governments. There is extensive evidence that indicates injustice was central in many of the processes followed to acquire land in many nations, and that the way it is currently held or used, or redistributed remain unjust. This course focuses on justifications normally given for historical land injustices (including colonial land dispossession and other forms of land grabs), as well as an assessment of current strategies to deal with land injustices that are adopted by different nations. This is a reading-intensive course. The contact session takes the form of a class discussion based on the prescribed readings, with the instructor acting as a facilitator, including making short introductory and concluding remarks. Each student is required to lead at least one or two discussion sessions. It is required that the readings for each session be done prior to coming to class.

GGR1705H Historical Geographies of Modernity

(M. Farish)

Building on critical assessments of the idea and influence of modernity, historical geographers have recently reconsidered subjects such as power and identity, human-environment relationships, and the genealogy of geographical thought. This course will treat modernity not just as a historical condition, but as a geographical project. Broad texts on modernity and its spatial dimensions will be read and discussed alongside a geographically diverse set of site-specific studies. Themes to be used for orientation include violence and anti-violence; science and empire; and cultures of modern urbanism.

JPG1706H Geographies of Violence and Security

(D. Cowen)

This course explores the shifting spatiality of organized violence, as well as changing theories of war and in/security. From the historical nationalization of legitimate war as a project of 'internal' and 'external' colonialism, to the disciplining of labouring bodies as part of the rise of geo- and bio-political forms, to the contemporary securitization of everyday urban life and the blurring of the borders of military and civilian, war and peace, and 'inside' and 'outside' state space, this seminar tracks the geographies of the political through the logistics of collective conflict. The course will examine perpetual, urban, and privatized forms of war that trespass modern legal, political, ontological, and geographical borders. Finally, we will explore problems of war 'at home'. How does the practice of war within the nation and the productive nature of war for domestic politics trouble our assumptions about the nation state, citizenship and 'normal' political space and time?

GGR1714H Geographies of Citizenship

(E. Gilbert)

The cultural turn that has seeped through the humanities and social sciences in the last several decades has had widespread effects: it has disabled older theories, epistemologies, methodologies, and even the organization of institutional disciplines. This course will critically examine the dimensions of this cultural turn in terms of the contemporary transformations to the study of cultural geography, and specifically the ways that our understanding of landscapes has been reconfigured. Cultural theories will be read up and against recent geographical writings. This strategy will also enable us to engage in a broader discussion of the role and uses of theory, of methodological forms and practices, of the dissemination and trajectory of ideas, and finally, of the politics of writing, research and the production of knowledge.

JPG 1804H Space, Power and Geography: Understanding Spatiality

(S. Ruddick)

The course charts new ways of thinking about space and power that are non-Cartesian, non-Hobbesian, and non-representational originating in divisions in Enlightenment thinking 400 years ago. Contemporary manifestations of this shift can be seen in the work of Foucault and Deleuze, Hardt and Negri, Bruno Latour their growing influence in geography manifest in geo-philosophy, non-representational space, emotional geographies, geographies of affect, politics of the multitude, networks and assemblages. The course explores the conceptual developments that give rise to this shift, introducing students to new ways of thinking about the nature of power, the nature of resistance, forms of social organization and mobilization, and the organization of space itself.

JPG1805H Transnationalism, Diaspora and Gender

(R. Silvey)

This seminar focuses on the politics of contemporary global migration processes with particular attention to the gender dimensions. It examines the geographic literature on transnationalism and diaspora to develop insight into the theoretical ramifications of critical political-economy, post-colonialism, post-structuralism, and feminism.

GGR1807H Geographies of Postcoloniality and Development: Exploring the Infrastructure Turn

(K. Rankin)

This course reviews recent scholarship in geography and critical development studies that seeks to investigate and theorize the significant role of infrastructure in shaping political, economic and social space, and also its efficacy as a genre of thinking. The course begins by revisiting the now-canonical literature on uneven development to

capture some perspectives on what is at stake politically, and how best to conceptualize the development as a contested terrain of practice and representation. The remainder of the course explores insights that can be derived from interrogating development through an engagement with infrastructure—a key concern, and some would even argue even an epistemological ‘turn’—in human geography and planning literatures. Drawing on science and technology studies, mobility studies, critical development studies, and contemporary urban theory (especially as they manifest in scholarship with geography and planning), we will engage infrastructure as materiality, as method, as terrain of expertise, as complex socio-technical system, as powerful political address, and as a critical political field.

JPG1809H Spaces of Work: Value, Identity, Agency, Justice

(M. Buckley)

This course will introduce students to Marxist, feminist, anticolonial and intersectional perspectives on ‘work’ in the twenty-first century. A key intention of this course is to prompt students to examine what forms of work – and also whose work – has been taken into account in geographical scholarship and to explore a number of prominent debates concerning labour, work and employment within geography over the last three decades. In doing so we will engage with foundational political economy texts on the relations of labour under capitalism, and texts within geography and sociology on work, labour, place and space. We will also examine a number of broad economic and cultural shifts in the nature of contemporary work and employment such as de-industrialization, the feminization of labour markets and service sector work, neoliberalization and the rise of the ‘precariat’. At the same time, students will be prompted to consider critiques of some of these ‘transformational’ narratives to probe the colonial, patriarchal, and capitalist continuities shaping the contours of contemporary work. In this sense this is not an exhaustive course on labour and work in geography, but rather a series of discrete introductions to key scholarly arguments about work, often followed by a range of responses to those arguments in the following week. The course will touch on a broad range of topics, including unfree labour, labour organizing, precarious employment and social reproductive work which are tied together by four overarching themes that run through the course – value, identity, agency and justice. Overall this course aims to give students the chance to explore not only how work has been conceptualized and studied in geography, but how it could be.

GGR1811H Troubling Militarism: Space, Affect, Economy

(D. Cowen)

In this course we examine the spatial politics and affective economies of militarism. Our approach is feminist, queer, and geographical, and combines questions of geopolitical and geoeconomic inquiry. Rather than approach "militarism" as a coherent set of ideas and practices that must simply be opposed, resisted, or reversed somehow, we seek to trouble militarism and its affective mobilization. We will grapple with the violence of militarism, not only in the immediately martial practices that the term typically denotes, but also in the imperial and colonial political geographies out of which the modern use of the term arises, and through its everyday and banal attachments. The ultimate aim is to develop conceptual and theoretical tools to explain militarism, militarization, and militancy through a critical engagement with ideas of race, class, gender, identity, and difference. What are the historical connections between the practice of nationalism and imperialism and the rise of militarism? What are the economic and political factors tied to militarism throughout the world? How do the concepts of militarism, militarization, and militancy help us to rethink the geo-political economies of labour, war, and violence? How can we broaden statist approaches to militarism to draw critically from scholarly, journalistic, and creative engagements with social movements and resistance strategies? Can we extend our analysis to envisage a more expansive set of questions concerning militarism to include sexual politics, queer militancy, and martyrdom? When / does militancy exceed the militarism that help shape its form? Throughout the semester, we will fine-tune our concepts and terminology to build a robust set of tools to trouble militarism, militarization, and militancy across time and space.

JPG1812Y Planning for Change

(TBD)

Planning for Change is a full-year service learning course that facilitates practical experience in community-engaged planning. You will be placed with an organization in the public or nonprofit sector for one day per week, on average, from September to April to work on a project in community development and planning that addresses the needs of your community partner. We meet as a class in a seminar format to support your work and learn from your experience. This is a challenging course that applies theory to practice (praxis). Our community partners value your work, and we maintain ongoing relationships with them. This placement can fulfill the internship requirement for MscPl students. The objectives of the service-learning placement are to allow graduate students to assist community groups or municipal planning departments in real-world community planning projects, to practice diverse planning skills, and begin to build longer-term commitments to communities and neighbourhoods throughout Toronto.

JPG1813H Planning and Social Policy

(S. Ruddick)

The world is seeing a clear resurgence of the urgency of directly and explicitly addressing the needs of equity deserving groups in a way that builds on but goes beyond the remit of identity politics. We now have a much richer understanding of the socially structurally and institutionally embedded nature of identity politics -- rather than simply the false assignation of identity as constituted through biology, movements like Black Lives Matter, Idle No More, CRIP and MAD movements, etc., have brought a deeper understanding of how policy planning and practice perpetuate structures of inequality. Key to a justice approach to social policy and planning is understanding how policy shapes a landscape of inclusion and exclusion and how ordinary people come to be “read”, rightly or wrongly, as particular subjects based on the prescriptive aspects of policy.

We are now at a moment when diverse social movements are beginning to take upon themselves the reimagining or promotion of much more ambitious alternative modes of governance, which would replace rather than simply amend existing structures. This can be found in widespread calls the redesign of institutional landscapes, from defunding of the police to expansive programs of truth and reconciliation. This course in social policy and planning calls upon us to rethink participation, consultation, experiential knowledge and our engagement as planners with existing power structures – this is not the moment to abandon social planning, but the time to reinvent it.

JPG1815H Political Economy, the Body, and Health

(M. Hunter)

What are the health consequences of recent transformations in sexuality and intimate relationships? How are intimate geographies of disease spatialized? This course explores connections between intimacy, geography, and health particularly through the lens of sexually transmitted infections. The course takes as its starting point the recent turn from medical geography towards a more qualitative, theoretically driven, health geography. It draws from research in countries that include Papua New Guinea, the Dominican Republic, and South Africa.

GGR1816H Geographies of Secularism, Islam and Gender

(H. Arik)

Secularism is a key principle of Western modernity and an epistemic framework that shapes our understanding of the political legitimacy of bodies, spaces, nations, and borders in the contemporary world. While rooted in the social and political legacies of Enlightenment philosophy, secularism has become more contested in relation to the heightened visibility of Islam, Islamist politics, identities and cultural practices in the second half of the 20th century. In this course we critically explore the geographies of secularism and the key debates around concepts of secularity, religion and secularization from feminist, post-colonial and anti-capitalist perspectives with a focus on Islam and the Islamic world. This course will examine the genealogy of secularism, its relationship to Western colonialism and Orientalist thought, and its discursive currency in some non-Western contexts as a fixture of Western modernity. It will question the assumed neutrality of the separation between ‘religious’ and ‘secular’ in the context of Muslim identities and cultural practices and examine secularism’s gendered, racialized and historically specific constructions of subjectivity, space and politics. The course will have an interdisciplinary

perspective that will draw from studies in geography, political science, security studies, anthropology, literature, and gender studies. It will bring in case studies primarily from the Middle Eastern context as well as through the experience of xenophobia and Islamophobia of Muslim populations in Europe and North America. We will consider questions such as: what is the relationship of secularism to the global resurgence of Islamic movements? Whose “values” are in the Quebec charter of values? How has secularism shaped the designation of women’s bodies and spaces in the context of hijab and burqa debates in the West? How can we understand concepts of freedom, rights and agency in the context of Muslim women’s activism? How does secularism designate security and risk to Muslim identities in the context of global war on terror? The course will be in seminar format and course evaluation will be based on weekly reading reflections, a final research paper and an in-class presentation in a conference panel format on the last day of class.

JPG1818H The Geography & Planning of Climate Action and Activism

(S. Ruddick)

In the face of growing concerns around the climate crisis and its immediate and long-term impacts on our planet, organizations focused on activism and action have mushroomed locally and globally – from the very local scale to the international scale. The purpose of this course is to introduce students to range of tools critical to successful peaceful social mobilization (both within and outside of the state). The course draws on a range of scholarly literature on effective strategies of social mobilization - from geography, planning and cognate disciplines -- as well as a range resources from social movement organizations. Though focused on questions of climate activism in the Canadian context we often incorporate lessons learned from other kinds of social movements in other locales. Students will be encouraged to focus on context dependent appraisal of the challenges and opportunities afforded by different approaches to mobilization around the climate crisis. While there is a long tradition of scholarly study on the relative efficacy of different approaches to social mobilization, to the best of my knowledge no such course in relation to climate activism exists at the University of Toronto, although there are several courses across the sciences, social sciences and humanities that address the climate crisis.

GGR1822H Queer Geographies

(N. Oswin)

Queer “is about messing things up, creating disorder and disruptive commotion within the normative arrangements of bodies, things, spaces and institutions” (Manalansan, 2015: 567). In this course, we will explore queer in this manner – as mess maker, disruptive force, and sanctuary for social difference. Though formal legal equality for LGBT people has been achieved in some countries around the world, homophobia and transphobia persist everywhere. So do heteronormativity (the privileging of certain heterosexual or ‘straight’ subjects over others) and homonormativity (the privileging of some homosexual or ‘queer’ subjects over others). We will explore queer thought as spatial thought, especially via its connections to postcolonial, critical race, and feminist theories. We will consider how dynamics of race, gender, class, colonialism, and geopolitics are central to expressions of sexual politics, and how queer theory and social movements build frameworks for social and spatial justice.

JPG1825H Black Geographies of the Atlantic

(R. Goffe)

Beyond a physical region, the Atlantic can be understood as a site through which techniques for the exploitation of land, people and the environment emerged, with enduring implications for world trajectories. This course traces a genealogy of contested spacetimes spanning the colonial state, the plantation, and urban neighborhoods and streets. We learn about representations of Blackness as they are made and remade through time such as: the “dangerous Blacks” of the Haitian revolution; the British West Indian ex-slave “unwilling” to work; a sanitized version of the Black small farmer; the anti-colonialist land invader; and the “illegal squatter” who is no longer recognized as a descendant of Black refusal. Among the traditions we explore are rebellion, revolution, and quotidian acts of place-making through farming, fishing, street vending, beauty services, taxi operation, masquerade, and dwelling. Through these representations and practices we explore the epistemologies of this ongoing encounter and also work to uncover the gendering of complex racial formations.

The course is formed through the lens of Black Geographies, an interdisciplinary approach that acknowledges (1) the spatial and cultural productions of Black people as significant and coherent critiques of dominance and injustice; (2) the visions of alternate futures for the world within these critiques; and (3) the centrality of Black geographies to the way the world works—not at the margins, but as co-producers of space.

JPG1830H Utopia/Dystopia

(S. Wakefield)

The term “Utopia” is a combination of the Greek words Eutopia (meaning 'good place') and Outopia (meaning 'no place'). This course explores classic and contemporary Utopian thought – in theory, literature, and practice – and will discuss the perils and pitfalls associated with the development of utopias (both imagined and “actually existing”). Our exploration of this topic will involve reading scholarly work within and outside geography, as well as examples of Utopian and dystopian literature. Key themes include how issues of social relation, ecological sustainability, governance, planning, and participation are addressed in Utopia(s).

GGR1832H – Geographies of Decolonization & Liberation

(M. Daigle)

This course examines theorizations of decolonization, liberation and freedom by BIPOC (Black, Indigenous and People of Color) thinkers/organizers. Course participants will examine the entanglements of (settler) colonialism, racial capitalism, anti-Black racism and white supremacy, as well as social movements and everyday practices of decolonization and liberation. We will discuss how BIPOC geographies are deeply interconnected, and together necessary for radical transformative change and decolonial futures.

JPG1835H Anti-Colonial Planning: Theory and Practice

(H. Dorries)

This course examines the relationship between planning and colonialism and considers the theories and practices that might be applied in the development of an anti-colonial approach to planning. This course looks to make visible how settler colonialism, as a mode of racial capitalism, works through planning to produce dispossession and inequality, with a focus on the experience of Indigenous peoples in Canada. A key intention of this course will be to examine planning policies or methods to uncover how planning’s core conceptual tools and methods—including property, growth, participation, sustainability—often hinge on the production of racial statuses and hierarchies. This course will also provide an overview of how planning scholars are grappling with the question of how to decolonize planning theory through a variety of discursive, ethical, and rights-based approaches. Through an engagement with Indigenous and anti-racist scholarship as well as community-led examples of counter-planning, this course will also consider how core planning assumptions, concepts, and practices might be challenged and reformulated.

Spatial Information Systems Courses

JPG1906H Geographic Information Systems

(D. Boyes)

This course provides an intensive introduction to fundamental geographic information system (GIS) theory, as well as practical, hands-on experience with state-of-the-art software. The course is designed to accommodate students from a variety of research backgrounds, and with no previous GIS experience. The goal is to provide students with a theoretical understanding of spatial data and analysis concepts, and to introduce the practical tools needed to create and manage spatial data, perform spatial analysis, and communicate results including (but not limited to) the form of a well-designed map. Assignments require the use of the ArcInfo version of ESRI’s ArcGIS software and extensions, and are designed to encourage proper research design, independent analysis, and problem solving. By the end of the course, successful students should be able to apply what they have learned to their own research,

to learn new functions on their own, and have the necessary preparation to continue in more advanced GIS courses should they wish to do so. Classes consist of a two hour lecture each week, which integrate live software demonstrations to illustrate the linkages between theory and practice.

JPG1909H Advanced GIS Data Processing

(J. Wang)

This course will complement the existing data analysis and quantitative methods courses currently being taught in the department. It will strengthen and broaden both the theoretical basis and skillsets available to graduate students in geography and urban planning for advanced data analysis in GIS. By introducing both the theory and application of up-to-date data analysis techniques and the state of art of GIS data processing, this course will fill a significant gap in our curriculum.

GGR1911H Remote Sensing

(J. Chen/J. Liu)

This graduate course is offered to graduate students of diverse backgrounds, and therefore it does not require prior training in remote sensing. Similar to GGR 337, the emphasis of this course is on the basic concepts and skills in using remote sensing data. However, graduate students are expected to learn additional skills in using remote sensing imagery for environmental research, as a way to encourage you to use remote sensing techniques for your graduate research. Environmental remote sensing has been an increasingly exciting subject as many new satellite sensors have been successfully launched and many are still forthcoming. The unprecedented abundance of earth observation data will allow us to address many pressing environmental issues. This course will cover the basics of using remote sensing data for environmental studies. In addition to learning the basic concepts, terminology, and theories of remote sensing science and applications, students will have the opportunity to acquire hand-on experience in digital image processing using the image analysis system ArcGIS. A series of laboratory works are designed with detailed instructions to lead the students through the key steps in processing satellite images and in extracting quantitative information about the Earth's surface. *Exclusion: GGR337H (STG), GGR437H (UTM), GGR1912H.*

GGR1912 Advanced Remote Sensing

(Y. He)

This is an advanced remote sensing course emphasizing the quantitative approaches for the analysis of satellite remote sensing data. Examples of topics that may be covered include preprocessing of remote sensing data, biophysical parameter extraction, linear feature extraction, conventional and object-oriented image classification, mapping uncertainty assessment, spatial statistical methods, change detection, and spatial-temporal modelling. For each of these topics, focus will be on the algorithms and technical details on how these image processing capabilities are implemented. After taking this class students will be able to actually implement the advanced remote sensing techniques to their own research, rather than just understanding the fundamentals.. *Exclusion: GGR337H (STG), GGR437H (UTM), GGR1911H.*

JPG1914H GIS Research Project

(D. Boyes)

Students will work in a group setting to explore the application of GIS techniques to a problem that crosses the boundaries of economic geography, physical geography, and planning. Students should discuss their backgrounds with the instructors before registering for the course. *Exclusion: GGR462 (STG).*

GGR1916H Remote Sensing of Vegetation Traits and Function

(J. Chen/J.Liu)

This course is offered in conjunction with GGR414H Advanced Remote Sensing. Building on GGR337H1 Environmental Remote Sensing (also offered as a graduate course GGR1911H), which covers the basic theories and techniques of optical and microwave remote sensing of the land surface, GGR1916H introduces advanced theories and techniques for land cover mapping, retrieval of vegetation structural and physiological traits, and remote

sensing of vegetation light use efficiency and photosynthetic capacity. Diagnostic ecosystem models will also be introduced for terrestrial water and carbon cycle estimation using remote sensing data. Optical instruments for measuring vegetation structural parameters in the field will be demonstrated, and high-resolution remote sensing images acquired from a drone system will be used as part of the teaching material and lab assignments. For GGR1916H additional lectures will be offered on basic radiative transfer theories as applied to remote sensing of vegetation traits and function. *Exclusion: GGR414H (STG).*