

Fall 2015

| Course | Instructor | Day/Time | Room |
|--|--------------|------------------|---------|
| GGR1105H: MA Human Geography Core Course | S. Wakefield | Mondays, 1pm-3pm | SS2124A |

[GGR1105H Course Outline Fall 2015](#)

The 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.

| | | | |
|---|------------|-------------------|---------|
| GGR1110H: Issues in Geographical Thought and Practice (PhD core course) | S. Prudham | Wednesdays, 1-4pm | SS2124A |
|---|------------|-------------------|---------|

[GGR1110H Course Outline Fall 2015](#)

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.

| | | | |
|--|-----------------------|----------------|--------|
| GGR1200H: Physical Geography Core Course | C. Mitchell/D. Harvey | Fridays, 1-4pm | SS5064 |
|--|-----------------------|----------------|--------|

[GGR1200H Course Outline Fall 2015](#)

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. PhD students who have taken this course in their MSc program are exempted from enrollment in this course and must take an alternate geography course in its place.

| | | | |
|-------------------------------|----------|--------------------|---------------|
| GGR1217H: Arctic Environments | L. Brown | Tuesdays, 11am-1pm | UTM DV1147 |
|-------------------------------|----------|--------------------|---------------|

[GGR1217H Course Outline Fall 2015](#)

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: GGR484H4

| | | | |
|------------------------------|-----------|--|-----|
| GGR1408H: Carbon Free Energy | L. Harvey | Wednesdays, 4-6pm (lecture), 6-7 (tutorial) | TBA |
|------------------------------|-----------|--|-----|

[GGR1408H Course Outline Fall 2015](#)

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 JGG 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: GGR348

| | | | |
|---|----------|----------------|--------|
| JFG1610H: Sustainable Forest Management & Certification | T. Smith | Mondays, 3-6pm | ES4000 |
|---|----------|----------------|--------|

The field and practice of sustainable forest management and certification are rapidly evolving. This course is designed to provide an overview of sustainable forest management policies and programs

from a provincial, national and international perspective. Through the implementation of such policies and programs, various outcomes should be achieved (ecological sustainability, biodiversity conservation, economic stability and community longevity). Historical perspectives, current initiatives and future opportunities are reviewed. The successes achieved by the implementation of such a program are measured through the use of criteria and indicators and certification processes. The ISO, SFI, the Canadian Standards Association, the Forest Stewardship Council and other certification processes are studied.

| | | | |
|---|------------|--------------------|---------|
| JPG1426H: Natural Resources Difference and Conflict | S. Mollett | Thursdays, 10-12pm | SS2124A |
|---|------------|--------------------|---------|

[JPG1426H Course Outline Fall 2015](#)

This course is concerned with the ways in which international development policies governing natural resource use, access and control reproduce difference and inequality, and how together these processes fashion conflict. Through attention to the entanglements of environment, difference and inequality, a core aim of this seminar is to interrogate what is taken as given in the governing instruments and institutions shaping natural resource policies that inform development activities from oil and mineral extraction to land and territorial demarcation, and tourism to name a few.

Three overlapping themes will guide this seminar. First, we will explore historical and geographical perspectives of natural resource conflicts with attention to post-colonial, post-structural and feminist theorizations of development as a way to understand the woven relations of environment, difference and conflict. Second, we will examine the contemporary role of the state in the provocation and abatement of natural resource conflict and work to unpack the meanings of conflict itself. Third, we will investigate how multiple forms of difference and their intersections (caste, class, gender, race, sexuality, nationality etc.) are materially and symbolically imbued in natural resource policy. Together, our seminar discussions, readings, films, and news analyses will address a number of conceptual and empirical debates and policy-related discussions in geography, planning and development studies.

| | | | |
|--|------------|---------------------|---------|
| JPG1558H: Transportation: Historical and Geographical Perspectives | R. Buliung | Thursdays, 10am-1pm | SS5017A |
|--|------------|---------------------|---------|

[JPG1558H Course Outline Fall 2015](#)

Transportation of goods, people, and information is an integral aspect of everyday life, but what of the origin of the various modes of transportation? How did the systems that we use and plan today, and their constituent technologies come to be? Annually, this course will involve an exploration of the history and geography of a particular mode of transportation. Using lectures, seminars, student papers and presentations, and occasionally fieldwork, the key people and places, technologies associated with the development of the modes of transport will be examined. The ebb and flow of demand for the modes of transport (e.g., biking, walking, public transit, the car) through time and across space will be discussed, as will costs and benefits. Adopting an historical and geographical lens, we will also consider the uneven way in which transport modes seem to fall into and out of favour, locally, nationally, and globally.

| | | | |
|----------------------------|---------|-------------------|---------|
| JPG1672H: Land and Justice | T. Kepe | Wednesdays, 4-6pm | SS2124A |
|----------------------------|---------|-------------------|---------|

[JPG1672H Course Outline Fall 2015](#)

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.

| | | | |
|---------------------------------------|-----------|-------------------------------|----------------------|
| JPG1805H: Transnationalism and Gender | R. Silvey | Thursdays, 4-6pm (revised) | SS2124A (revised) |
|---------------------------------------|-----------|-------------------------------|----------------------|

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.

| | | | |
|---|------------|--------------------|---------|
| JPG1809H: Spaces of Work - Value, Identity, Agency, Justice | M. Buckley | Mondays, 10am-12pm | SS2124A |
|---|------------|--------------------|---------|

[JPG1809H Course Outline Fall 2015](#)

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.

JPG1812Y: Planning for Change

A. Daniere, C. Levkoe

Mondays, 5-8pm (fall and winter sessions)

SS5017A

Instructor permission is required for enrollment in this course.

[JPG1812Y Course Outline 2015-2016](#)

Planning for Change is a year-long course (Y) comprised of seminars, readings, films, discussion, writing, reflection and the completion of a major project designed by and for a community organization. Students will have the opportunity to gain an in-depth, reflective experience in the field of community development. The course is based on successful models of service-learning courses at other institutions. Service learning, as a pedagogical practice, aims to unite what often appear to be divisive realms of theory and practice by providing analytical tools to connect academic and community development work. Service-learning aims to create an educational space where work is done for community organizations with students based on the self-identified needs of the community. Students are challenged to reflect on the work they are doing and the context in which service is provided. Planning/Geography education and service-learning are in many ways an ideal partnership. A service-learning course in the graduate program at the University of Toronto opens a way for students to gain hands-on experience in the field of community development.

JPG1906H: Geographic Information Systems

D. Boyes

Fridays, 10am-12pm (lecture), 12-2pm (labs)

SS2125 (lecture), SS620 (labs)

[JPG1906H Course Outline Fall 2015](#)

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.

*POL2173H: Advanced Environmental Politics and Policy in Canada

A. Olive

Mondays, 4-6pm

AH206

[POL2173H Course Outline Fall 2015](#)

This course will introduce students to a variety of political and policy design issues related to the environment. After starting with some theoretical ideas about the policy process and the environment we will spend the majority of our time considering different approaches by policy-makers to solving

environmental problems, including command and control regulation, market-based policies, and alternatives. The course includes examination of some of the larger issues related to environmental policy in Canada, including oil sands, climate change, biodiversity, aquaculture, and Arctic development issues. Overarching themes in the course include negotiating federalism and understanding democracy in environmental policy, environmental justice, and the strengths/weaknesses of market-based policies. Exclusion: POL473H

| | | | |
|------------------------------------|------------|-----------------|-------|
| *POL2338H: Innovation & Governance | H. Bathelt | Tuesdays, 4-6pm | UC148 |
|------------------------------------|------------|-----------------|-------|

[POL2338H Course Outline Fall 2015](#)

The course discusses a broad range of topics related to innovation and governance, such as (i) technological change and its social and economic consequences, (ii) the spatial effects which result from this, and (iii) the necessities for economic 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 be increasingly associated with capabilities related to knowledge generation and innovation. As a consequence, questions of performance in innovation and policy support will become decisive at the firm, regional-state and national-state levels. The seminar is divided into four main parts: The first part deals with conceptual foundations of innovation processes, such as evolutionary and institutional views of innovation. In the second part, national configurations of innovation processes and governance are investigated. The third part will deal with innovation processes at the subnational level, focusing on regional innovation and a knowledge-based conception of clustering. The final part of the course discusses aspects of multilevel governance in regional and global context. The seminar develops a relational perspective of institution-building and territorial governance which helps us to understand cross-national innovation processes. This course is interdisciplinary in nature and uses literature from a number of different fields dealing with innovation, governance and its consequences in economic and social life. The course should, thus, also be of interest to students in Economics, Geography, International Relations, the History and Philosophy of Science and Technology, and Sociology.

| | | | |
|---|----------------|-------------------|--------------|
| *EES1118H: Fundamentals of Ecological Modelling | G. Arhonditsis | Tuesdays, 2 - 5pm | BV471 (UTSC) |
|---|----------------|-------------------|--------------|

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.

| | | | |
|--|----------|-------------------|--------------|
| *EES1120H: The Dynamics of Contaminant Dispersal in Fluids | M. Wells | Fridays, 9 - 11am | BV361 (UTSC) |
|--|----------|-------------------|--------------|

This course will introduce the mechanisms of contaminant transport in lakes and the coastal ocean. The emphasis will be on a practical understanding of different dispersion regimes from point and distributed

pollution sources. Students will learn to use the basic equations that model these processes and understand how these equations are used in water quality models. Students will also be introduced to field measurement techniques and learn to compare field data with model data. Among the subjects to be discussed are the dispersion of pollutants in lakes, rivers and the coastal zone, mixing in stratified estuaries and the dynamics of the seasonal thermocline.

| | | | |
|----------------------------------|-----------|----------------------|--------------|
| *EES1132H: Climate Data Analysis | T. Mohsin | Tuesdays, 10am - 1pm | BV471 (UTSC) |
|----------------------------------|-----------|----------------------|--------------|

This course will offer an advanced introduction to climate data analysis. It is intended for graduate students studying climate science and is mainly laboratory (computer) based. For the first part of the course, the goal is to provide an understanding of the theory underlying the statistical analysis of climate data, in the space, time and spectral domain. In the second part of the course, the basic concepts of time series analysis will be introduced in terms of identifying stationarity or trends in the data. Some of the important statistical estimation techniques such as regression, correlation and spectral analysis will be used for the time series analysis by giving a detailed account on the interpretation of the data and the associated climatological questions. Although some previous knowledge of probability and statistics will be helpful, a review will be provided at the beginning of the course. Concepts and notation will be reintroduced, as needed. If time permits, the statistical modelling approach will also be covered.

| | | | |
|---|---------------------|------------------|--------------|
| *EES1133H: Climate Change Science and Modelling | T. Mohsin, W. Gough | Mondays, 1 - 3pm | BV355 (UTSC) |
|---|---------------------|------------------|--------------|

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.

| | | | |
|--|--|--|--|
| GGR1149H - Readings in Selected Topics (Masters level) | | | |
|--|--|--|--|

See the [Reading Course Instructions and Request Form](#) for details.

| | | | |
|--|--|--|--|
| GGR2149H - Readings in Selected Topics (PhD level) | | | |
|--|--|--|--|

See the [Reading Course Instructions and Request Form](#) for details.

Winter 2016

| Course | Instructor | Day/Time | Room |
|---|------------|----------------------|--------|
| GGR1215H: Advanced Watershed Hydroecology | J. Liu | Wednesdays, 11am-1pm | SS2125 |

[GGR1215H Course Outline Winter 2016](#)

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: GGR413

| | | | |
|---|------------|-------------------|----------------|
| GGR1216H: Advanced Biogeochemical Processes | I. Lehnerr | Mondays, 12 - 3pm | UTM (Room TBA) |
|---|------------|-------------------|----------------|

[GGR1216H Course Outline Winter 2016](#)

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 processes underlying biogeochemical cycles of major elements such as carbon and nutrients, and examines how humans alter these cycles. Topics covered include biogeochemical processes in atmospheric, aquatic and terrestrial compartments, emerging techniques (e.g., stable-isotopes) used in biogeochemistry, and how disruptions to these processes are at the root of many environmental issues such as eutrophication, climate change, ocean acidification and toxic metal contamination. Exclusion: GGR406H5

| | | | |
|---|----------|--------------------|---------|
| GGR1610H: Geography of Finance and Financial Crisis | A. Walks | Fridays, 12 - 3 pm | SS2124A |
|---|----------|--------------------|---------|

[GGR1610H Course Outline Winter 2016](#)

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.

| | | | |
|---------------------------|---------|---|--------|
| GGR1911H - Remote Sensing | J. Chen | Mondays, 10am - 12pm (lectures), Thursdays 3 - 5pm or 5 - 7 pm (labs) | SS1072 |
|---------------------------|---------|---|--------|

Advanced image processing, theory and applications of spatial resolution effects on classification, monitoring and interpretation of landscapes. From field spectrometric data to simulated images.
Exclusion: GGR337

| | | | |
|-------------------------------------|-----------|----------------------|---------|
| JPG1428H: Managing Urban Ecosystems | T. Conway | Fridays, 10am - 12pm | SS2124A |
|-------------------------------------|-----------|----------------------|---------|

[JPG1428H Course Outline Winter 2016](#)

This reading seminar focuses on the different ways people interact with and manage urban ecosystems. The course begins by exploring the characterization of cities as ecosystems. We will then examine the socio-ecological research and management goals that draw on and build from an urban ecosystem perspective. Management of urban climates, hydrology, and vegetation will be explored. The role of municipal policy, built form, residents 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 individual decision-makers will be considered.

| | | | |
|---|---------------------|-----------------------|---------|
| JPG1429H: Political Ecology of Food and the Agrarian Question | M. Ekers/R. Isakson | Tuesdays, 10am - 12pm | SS2124A |
|---|---------------------|-----------------------|---------|

This 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. Arguably, access to food and the viability of alternative and conventional agriculture is shaped by the particular, and at times limited, ways that capital takes hold of agrarian production processes and transforms small-scale and peasant farmers. This course examines these questions through a series of historical and geographical accounts of the agrarian question and discusses how they might inform or limit understandings of the political ecology of food. We start with competing historical accounts of agrarian production in the works of Lenin, Kautsky and Chayanov. Next, we explore their respective influences in accounts of peasant studies and agrarian political economy in the 1970s and 1980s and the chasm existing between marxist and populist accounts of the peasantry and agrarian change. Finally, we trace the endurance and possible relevance of the agrarian question in contemporary readings of alternative agriculture, land-based social movements, renewed forms of enclosure and the financialization of land. Through this

course we explore to what degree more recent studies of political ecology and food might be reinvigorated through a historically and geographically expansive reading of the agrarian question.

JPG1503H: Space, Time, Revolution K. Goonewardena Wednesdays, 3 - 6pm SS2124A

[JPG1503H Course Outline Winter 2016](#)

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*.

JPG1516H: Declining Cities J. Hackworth Thursdays, 2 - 4pm SS5017A

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?

JPG1520H: Contested Geographies of Class Formation M. Hunter Mondays, 3 - 5pm SS2124A

How are spatial and class inequalities produced and contested in mutually constituted ways? Why are class inequalities always spatial inequalities? Following criticisms of Marxism and feminism in the 1980s (tied up with what some call the “cultural turn”) scholars have become accustomed to view race, class, gender, and sexuality as “intersecting.” This is an important development—a starting point in fact for the course—but it has also left a situation whereby we routinely evoke class to explain the social world in which we live but often in a way that lacks a sense of the term’s genealogy and analytical strengths and limitations. This course therefore excavates writings on class from sociologists like Marx, Weber, and Bourdieu; geographers like Cindi Katz and Doreen Massey; intersection scholars like Patricia Hill Collins; urbanists like David Harvey; and writers on colonialism like Franz Fanon. We divide the seminar into two parts: the first explores key theories on class and the second explores these through monographs.

| | | | |
|---|-----------|---------------------|---------|
| JPG1554H: Transportation and Urban Form First Class is January 20 | S. Farber | Wednesdays, 1 - 4pm | SS5017A |
|---|-----------|---------------------|---------|

[JPG1554H Course Outline Winter 2016](#)

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.

| | | | |
|-----------------------------|----------------|-------------------|--------|
| JPG1660H: Regional Dynamics | R. DiFrancesco | Tuesdays, 1 - 3pm | SS2111 |
|-----------------------------|----------------|-------------------|--------|

[JPG1660H Course Outline Winter 2016](#)

The space-economy has always been characterized by polarization across myriad dimensions. As a result, regional economic change has been very difficult to fully explain (and certainly predict) using conventional (orthodox) theories and methods. This course examines the theoretical linkage between related trends in terms of globalization, vertical disintegration, specialization, innovation, 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 increasingly 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 the economic activity is becoming ever more concentrated in space even as it globalizes. Exclusion: GGR431

| | | | |
|--|-----------|------------------------|---------|
| Recently added: GGR1705H: Historical Geographies of Modernity | M. Farish | Thursdays, 10am - 12pm | SS2124A |
|--|-----------|------------------------|---------|

[GGR1705H Course Outline Winter 2016](#) This version of GGR 1705 will follow Lisa Lowe's suggestion that we "inquire...into the politics of knowledge about 'New World modernity'." For decades, many writers have argued that the universal aspirations of liberal humanism have long been in tension with or obscured the profound violence and social hierarchies of settler colonialism, slavery, and other forms of racism in North America. Working with and extending this scholarship, Lowe proposes that we recover these disavowed or forgotten histories by seeking out the global, lived geographies that were both fundamental to and not entirely circumscribed by the premise of a modern 'New World'. For our purposes, the question is how this ambitious endeavor intersects (or does not intersect) with research in historical geography, and perhaps also with the emerging field of 'geohumanities'. We will therefore read across geography, history, and related fields, focusing on the Atlantic world but open to comparative possibilities in the Pacific Northwest and the Arctic.

| | | | |
|--|------------|-------------------|---------|
| JPG1804H: Space, Power and Geography: Understanding Spatiality | S. Ruddick | Tuesdays, 12 -3pm | SS2124A |
|--|------------|-------------------|---------|

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.

| | | | |
|---|-----------------|-------------------|---------|
| GGR1811H: Troubling Militarism - Space, Affect, Economy | D. Cowen/J. Han | Tuesdays, 5 - 7pm | SS5017A |
|---|-----------------|-------------------|---------|

[GGR1811H Course Outline Winter 2016](#)

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.

| | | | |
|--|-------------|---------------------|---------|
| JPG2150H: Special Topics - Qualitative Methods | L. Stephens | Thursdays, 5 - 7 pm | SS5017A |
|--|-------------|---------------------|---------|

[JPG2150H Course Outline Winter 2016](#)

This course will briefly introduce research design concepts and then cover a range of qualitative methods along with their strengths and weaknesses. The range of methods covered will differ year to year but typically include some of the following: case study research, ethnography, discourse analysis, content analysis, archival research, interviews and focus groups. Examples come from Geography and Planning and speak directly to these fields.

| | | | |
|---|------------|---------------------|-----|
| *POL2800H: Special Topics - Statistical Analysis and Inference for Political Scientists | H. Bathelt | Mondays, 10am - 1pm | TBA |
|---|------------|---------------------|-----|

| | | | |
|--|------------|--------------------|--------|
| Recently Added *ENV1444H - Capitalist Nature | S. Prudham | Tuesdays, 12 - 3pm | ES1042 |
|--|------------|--------------------|--------|

[ENV1444H Course Outline Winter 2016](#)

This course is concerned with exploring the idea of “capitalist nature”. Specifically, the course is based on five 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 (however partially) in a capitalist political economy, and what are the associated problems and contradictions?
- (iii) How do the contemporary dynamics of environmental change and environmental politics shape and help us understand transformations in markets, commodity production regimes, and capitalist social relations and institutions more broadly?
- (iv) How can we understand the main currents of policy and regulatory responses to these dynamics?
- (v) How do dominant ideas about nature (non-human as

| | | | |
|---|-----------|--|--------------|
| *EES1117H - Climate Change Impact Assessment | T. Mohsin | Tuesdays, 1 - 3pm (lecture), 3 - 4pm (labs) | BV471 (UTSC) |
|---|-----------|--|--------------|

The study and consideration of climate change is of increasing significance to society. This course will review the evidence for climate change over the past 150 years using both direct measurements and proxy data. Projection of future climate change will also be considered by modeling. Students will complete a major case study and research paper.

| | | | |
|---|----------------|---------------------|--------------|
| *EES1119H: Quantitative Environmental Analysis | G. Arhonditsis | Mondays, 10am - 1pm | BV471 (UTSC) |
|---|----------------|---------------------|--------------|

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.

| | | | |
|--|----------------------------|--|---|
| *EES1126H - Environmental Tracers | C. Mitchell | Wednesdays, 3 - 6pm | BV363 (UTSC) |
| EES1126H Course Outline Winter 2016 | | | |
| <p>This course focuses on the use of various isotopes and chemicals (eg. solutes, dyes) for furthering our understanding of complex environmental problems, including such diverse topics as the characterization of freshwater resources, contaminant transport in aquatic systems, analysis of aquatic foodchains, and finding the human influence in global climate change. Students will be provided with information on how chemical and isotope tracer studies can be coupled with physical measurements to understand complex problems in hydrology, biogeochemistry, contaminant transport, and ecology. This course will be a hybrid-type lecture/seminar course. Each week, Professor Mitchell will lecture about a specific topic for a period of time and students will be given a short break. After this, we will reconvene and a different student each week will lead a group discussion of the assigned reading(s) for the week. During these seminar periods, your participation in the discussion will be noted and marked (even if you are not the one leading the discussion that week). From time to time during the term, some of the lecture time will be taken up with either opportunities to explore the practical use/application of methods learned in the course (modeling in computer-based laboratories), with visits from guest speakers on specific topics, and/or with student oral presentations of term projects.</p> | | | |
| *EES1131H - Applied Climatology | T. Mohsin | Mondays, 1-3pm (lecture) 3-4pm (labs) | BV355 (lecture) BV498 (labs) - UTSC |
| <p>This course will introduce and discuss the basic topics and tools of applied climatology, and how its concepts can be used in everyday planning and operations (e.g. in transportation, agriculture, resource management, health and energy). The course involves the study of the application of climatic processes and the reciprocal interaction between climate and human activities. Students will also learn the methods of analyzing and interpreting meteorological and climatological data in a variety of applied contexts. Topics include: Solar Energy; Synoptic Climatology and Meteorology; Climate and Agriculture; Climate and Energy; Climate and Human Comfort; Urban Effects on Climate and Air Pollution.</p> | | | |
| Recently Added *ESS2303H - Earth System Evolution | S. Cowling, S. Finkelstein | Fridays, 10am - 12pm | ES4113 |
| ESS2303H Course Outline Winter 2016 | | | |
| <p>This is a graduate seminar offered by the Department of Earth Sciences. This year an overarching theme of the global carbon cycle has been placed over the general subject of Earth System Evolution. This theme was chosen because it is a critical biogeochemical cycle involving all of the sub-components of the Earth System, and covering spatiotemporal scales ranging from the global to leaf-level and from geological to contemporary times. The course has been divided into four broad themes: Plants and carbon-based processes, Methods of reconstructing global carbon cycle dynamics through time, Carbon perturbations and major events in Earth system evolution, and Human disturbance of the carbon cycle. Specific topics will be given for student presentations and group discussions.</p> | | | |
| GGR1149H - Readings in Selected Topics (Masters level) | | | |

See the [Reading Course Instructions and Request Form](#) for details.

GGR2149H - Readings in Selected
Topics (PhD level)

See the [Reading Course Instructions and Request Form](#) for details.