

Title	Course #	Department	Level	Description	Type
Agricultural Economics & Marketing 1	ABIZ 0440	AgBusiness and AgEconomics	UG	Introduction to key economic concepts and business principles and their application to Canadian agribusiness.	Sustainability Related
Agricultural Economics & Marketing 2	ABIZ 0450	AgBusiness and AgEconomics	UG	To review fundamentals of Price Determination from ABIZ0440. To become more familiar with farmer marketing contracts. To understand how prices are established and the importance of futures markets in this price discovery process. To apply price risk management to the Farm Marketing Plan as an important part of the MPP project required for Diploma graduation.	Sustainability Related
Agricultural Policy	ABIZ 0710	AgBusiness and AgEconomics	UG	Review of agriculture, international trade and food safety policies affecting the production and distribution of agricultural commodities and food products.	Sustainability Related
Introduction to Agribusiness Management	ABIZ 1000	AgBusiness and AgEconomics	UG	Introduction to management principles applied to agribusiness. Topics covered will include cooperative and corporate organizations, financial analysis, marketing and planning. All students will prepare a business plan. Students will use spreadsheet skills with respect to processing information and preparing forecasts.	Sustainability Related
Economics of World Food Issues and Policies	ABIZ 1010	AgBusiness and AgEconomics	UG	Determinants of global food consumption, production and the factors underpinning food security and malnutrition. The importance of international trade in balancing countries' supply and demand for food, examination of trade barriers and institutions facilitating trade.	Sustainability Related
Transportation Principles	ABIZ 2210	AgBusiness and AgEconomics	UG	This course is a study of demand forecasting, cost analysis, regulation of carriers, the role of transport in economic development and transport planning addressing the agriculture and agri-food and other supply chains. The course provides an international/global orientation to logistics and supply chain management.	Sustainability Related
Introduction to Environmental Economics	ABIZ 2390	AgBusiness and AgEconomics	UG	Economics of management of water, air and land resources quality, and the economics of conservation. The economic implications of environmental standards, licensing criteria and pollution charges will be illustrated by current issues.	Sustainability Focused
Introduction to Agricultural and Food Marketing	ABIZ 2510	AgBusiness and AgEconomics	UG	Understand fundamentals of food and agriculture markets Understand basic economics of supply & demand that determine price in these markets. Understand how prices are discovered and key approaches to price risk management. Understand key features of supply chains from farm production of agricultural commodities to food consumption of differentiated food products.	Sustainability Related
Agricultural Human Resource Management	ABIZ 2620	AgBusiness and AgEconomics	UG	Students will carry out processes such as job analysis and design, recruitment and selection, training and development, performance management and compensation management to develop a comprehensive human resource management plan for an agricultural enterprise. An overview of human resource legislation will be provided and resources to support human resource management decision making will be identified.	Sustainability Related
Economics of Food Policy	ABIZ 3510	AgBusiness and AgEconomics	UG/G	Economics of market intervention; trade policy analysis, and agricultural protection, exports, subsidies, tariffs, quotas; intermediate versus final goods; currency exchange rates and agricultural trade policy; trade agreements.	Sustainability Related
Environmental Policy	ABIZ 3550	AgBusiness and AgEconomics	UG/G	Environmental policy development and enactment in Canada; federal and provincial review processes; socio-political aspects of policy development; chemical and pesticide licensing procedures and environmental effects monitoring; environmental policy and sustainability; case studies; discussion of various policies; ethics of development, preservation and conservation; environmental risk management.	Sustainability Focused
Econometrics with Applications in Food, Agribusiness and Resources	ABIZ 7260	AgBusiness and AgEconomics	G	Econometrics as applied to food, agriculture, agribusiness, resources and related areas. Econometric applications in these areas may cover generalized least squares, instrumental variables, nonstationarity and other topics. Econometric software and data will be used Students will conduct a related applied econometric study.	Sustainability Related

Advanced Theory of Resource Economics	ABIZ 7430	AgBusiness and AgEconomics	G	Economic theory of the development and management of natural resources. Application of capital theory, investment theory, the theory of externalities and decision-making theories to resource utilization and management. A strong background in microeconomics is required.	Sustainability Related
Introduction to Agrifood Systems	AGRI 1600	Agriculture	UG	This course explores agricultural production systems with special focus on the Canadian Prairies. Students will develop scholarly, social, communication and professional skills that will enable them to be successful in the application of technical knowledge to food production challenges. This course will include a field trip component.	Sustainability Related
Introductory Toxicology	AGRI 2180	Agriculture	UG	A survey of general principles underlying the effects of toxic substances on biological systems, including history, scope and applications of toxicology, the mechanisms of toxic action, and some major types of toxicants.	Sustainability Related
Indigenous Issues in Food Systems	AGRI 2300	Agriculture	UG	An overview of the historical and contemporary relationships between food systems and Indigenous people. The course will provide background to allow students to craft their own solutions to food system issues faced by Indigenous people.	Sustainability Related
Current Issues in Agricultural Systems	AGRI 4100	Agriculture	UG/G	Integration of current issues in agricultural systems including land, plant, and animal systems, coupled to the food and nutrition needs of society. Emphasis on ethics, equity, economics, and professional approaches to challenges in food systems using case studies, teamwork and scientific communication to specialists and the public.	Sustainability Related
Skills for Agricultural Communication and Decision Making	DAGR 0410	Agriculture Diploma	UG	A course designed to improve critical thinking and abilities in written and oral communication to support student success in their academic careers and as agricultural industry professionals.	Sustainability Related
Advanced Communication and Rural Leadership	DAGR 0610	Agriculture Diploma	UG	A course designed to improve leadership potential and develop advanced communication skills for agricultural industry professionals.	Sustainability Related
Special Project - Agricultural Technologies for Farm Management Decision Making	DAGR 0630	Agriculture Diploma	UG	Students will be partnered with an agricultural technology firm who will provide hardware, software, training, and technical support throughout the course. Students will use the technological tool to collect data/information from their own farm during the growing season and will assess the strengths and challenges in using the tool to make farm management decisions.	Sustainability Related
Integrated Sustainable Agri-Food Systems	DAGR 0910	Agriculture Diploma	UG	The agri-food system encompasses how food is being produced, processed, transported, marketed and consumed. The three pillars of sustainability (economic, social and environmental) will be used to evaluate and improve agricultural sustainability, and will also be applied to the agri-food system (beyond production). Sustainable solutions are unique to each agricultural situation and require long-term thinking and evidence-based decision-making. Focus will be on the balance between food production practices and protecting the natural resources on which agriculture is reliant. There will be a full-day field trip	Sustainability Focused
Current Issues in Agriculture & Food	DAGR 0920	Agriculture Diploma	UG	The course will present current day and potential future issues facing Canada's agri-food sector. Students will be required to identify and optimize solutions to these issues, with a focus on the roles and responsibilities of farmers, other food producers and agri-food industry members. The impact of these issues on farms and the agri-food industry now and in the future will be emphasized as will the role farmers can play in policy development in response to these issues. An opportunity for students to engage with several guest speakers from the agri-food community. There will be two or three full-day field trips.	Sustainability Related
Principle of Ecology	AGEC 2370	Agroecology	UG	Principles of ecology at the individual, population, community, and ecosystem levels.	Sustainability Related
Animal Health and Welfare	ANSC 0600	Animal Science	UG	This course explores the common livestock and poultry diseases of the Prairie provinces. Emphasis will be placed on prevention through management and health programs, but	Sustainability Related

				treatment of specific diseases will also be addressed. Additionally, animal welfare as it relates to commercial animal production will be discussed.	
The Animal and Its Environment	ANSC 3530	Animal Science	UG/G	his course explores how an animal is influenced by its environment with respect to effects upon health, welfare and performance. Principles of farmed animal behaviour, welfare and behavioural management, health, and facility design and modification will be considered in the context of animal/environment interactions.	Sustainability Related
Grassland Agriculture: Plant, Animal and Environment	ANSC 4410	Animal Science	UG/G	Inter-relationships between the biological components of grassland agriculture as they relate to forage production on the Canadian Prairies. Topics include utilization by wild and domestic animals, plant community relationships and role of forages in multiple land use planning.	Sustainability Related
Socio-Cultural Anthropology	ANTH 1220	Anthropology	UG	The comparative study of human societies and cultures, including language, economic and political organization, family and kinship, ritual and belief systems, cultural stability and change.	Sustainability Related
Culture, Society and Power	ANTH 2000	Anthropology	UG	An advanced introduction to cultural anthropology that focuses on anthropological approaches to the cross-cultural organization, dynamics, and tensions of social relationships at individual, group, and societal levels.	Sustainability Related
Relatedness in a Globalizing World	ANTH 2020	Anthropology	UG	Anthropological approaches to diverse practices of human relatedness across cultures and over time, including 21st century reconfigurations or marriage, family, reproduction and kinship.	Sustainability Related
Plagues and People	ANTH 2240	Anthropology	UG	Examines selected plagues in evolutionary, ecological, and epidemiological context, and considers the complex biological, social, and economic repercussions for human populations. Foci include past, present, and emerging infectious disease epidemics.	Sustainability Related
Ecology, Technology and Society	ANTH 2430	Anthropology	UG	Ecological analysis of the interplay of socio-political and technological processes in different types of societies. Focus upon the ecological side-effects and selected technologies, economic mechanisms and political institutions	Sustainability Related
Media Anthropology	ANTH 2470	Anthropology	UG	This course focuses on media production and dissemination and on images of the world created by media. Media practices and products are addressed in relation to the formation of social relations and identities, the shaping of peoples' sense of time and space, and media's role in the construction of communities and in processes of socio-economic and cultural change.	Sustainability Related
Anthropology of Illness	ANTH 2560	Anthropology	UG	Comparative study of cultural factors involved in health/illness: concepts of disease and curing practices.	Sustainability Related
Evolution and Human Diversity	ANTH 2860	Anthropology	UG	An introduction to the interacting roles of heredity, culture and environment in human families and populations. Introduces the biological bases for variation within/between human populations.	Sustainability Related
Anthropology of Food	ANTH 3200	Anthropology	UG	Considers the diversity of ways that anthropologists have used food as a productive entry point for understanding culture, society, and human ecology. The course will survey highpoints in the history of the anthropology of food and address current topics such as food security and food movements.	Sustainability Related
Anthropology and Contemporary Social Issues	ANTH 3380	Anthropology	UG	Anthropological perspectives on poverty, social accountability, colonialism, racism, education, ecological degradation and violence.	Sustainability Related
Anthropological Perspectives on Globalization and the World-System	ANTH 3750	Anthropology	UG	An anthropological perspective on the modern world-system and the expansion of capitalism into peripheral areas of the world; the transformation of indigenous societies and cultures; the rise of ethnic conflict, protest and resistance; and a comparative examination of selected global and transnational processes.	Sustainability Related
Public Anthropology with Youth: Critical Decolonizing Pedagogies	ANTH 4780/7900	Anthropology	G	Problems in ethnological research. The course content may vary.	Sustainability Related

Human Adaptability	ANTH 4860	Anthropology	UG/G	An intensive study of human population biology in diverse environments inhabited by human populations. Emphasis on selected examples of cultural adaptability as a specifically human mechanism for dissipating stress on the biological system.	Sustainability Related
Biology: Biological Diversity and Interaction	BIOL 1010	Biological Sciences	UG	An introduction to biological diversity including prokaryotes, protists, fungi, plants and animals; the form and function of plants and animals and basic concepts of ecology. May not be used for credit in a Major or Honours program in the Biological Sciences	Sustainability Related
Economic Plants	BIOL 1300	Biological Sciences	UG	A survey of economically important plants and their products. The history of plant use, plants in folklore and medicine, fermentation and viticulture, domestication of plants, and forestry are the major topics covered. Chemical, structural and nutritional aspects of plant products are also discussed.	Sustainability Related
The State of the Earth's Environment: Contemporary Issues	BIOL 1340	Biological Sciences	UG	A presentation of contemporary environmental issues focusing on the scientific basis of problems caused by the growth of human population, use and depletion of resources, pollution, and damage to the environment. The current state of our knowledge bases will be discussed, along with improvements in them that may be necessary. The course will consider needs for action, priorities, and opportunities.	Sustainability Related
Principles of Ecology	BIOL 2300	Biological Sciences	UG	Principles of ecology at the individual, population, community, and ecosystems levels. This course is also offered as AGEC 2370. It is the normal prerequisite to other courses in ecology.	Sustainability Related
Introductory Toxicology	BIOL 2380	Biological Sciences	UG	A survey of general principles underlying the effects of toxic substances on biological systems, including consideration of the history, scope and applications of toxicology, the mechanisms of toxic action, and some major types of toxicants	Sustainability Related
Introductory Ecology	BIOL 2390	Biological Sciences	UG	The course involves a study of the interrelationships of living organisms (including human) with each other and with their environment. It is not normally acceptable as a prerequisite to other courses in ecology	Sustainability Related
Foundations of Population Ecology	BIOL 3310	Biological Sciences	UG	The study of living populations, through experimentation and theory, will be examined. Topics investigated will include population regulation, competition, predation, disease, harvest, nonlinear and spatial dynamics and individual based models	Sustainability Related
Community Ecology	BIOL 3312	Biological Sciences	UG	Lectures and laboratories emphasizing the structure and function of terrestrial biotic communities with emphasis upon selected Manitoba situations.	Sustainability Related
Boreal Ecology	BIOL 3318	Biological Sciences	UG/G	A survey of ecological factors in the formation, evolution, and survival of northern biota.	Sustainability Related
Wetland Ecology	BIOL 3372	Biological Sciences	UG/G	Lectures and field exercises examine the biotic (algae, macrophytes, invertebrates, and vertebrates) and abiotic (hydrology, nutrient cycling) properties of Manitoba's wetlands. Various wetland types, including prairie potholes, peatlands, and coastal marshes will be considered in lectures and field work.	Sustainability Related
Biology of Fishes	BIOL 4210	Biological Sciences	UG/G	Lectures survey organ systems, life history, and the population biology of fishes. The ecological analysis of fish communities is addressed through a field trip and a series of workshops on the analysis of field data. Evaluation is based upon work related to the field trip and examinations based upon the lecture material.	Sustainability Related
Biology of Mammals	BIOL 4218	Biological Sciences	UG/G	Structure, classification, evolution, life histories, biogeography and ecology of mammals, including conservation. Techniques of studying mammals. Identification of the mammals of Manitoba. Typically offered alternating years.	Sustainability Related
Marine Biodiversity	BIOL 4220	Biological Sciences	UG/G	Examines key ecological principles governing the maintenance of marine biodiversity, particularly in northern ecosystems. Topics include the definitions and global patterns of biodiversity and the ecological mechanisms influencing changes in these patterns in the context of applied population, community and ecosystem ecology. The course will also emphasize practical solutions, including fisheries' harvest models and marine protected areas.	Sustainability Related

Evolution and Adaptation	BIOL 4300	Biological Sciences	UG/G	Lectures and discussion on advances in evolutionary research. Topics will include systematics, evolutionary genetics, evolution and development, co-evolution, mating systems, species ranges, eco-evolutionary dynamics, and evolution in society.	Sustainability Related
Arctic Field Ecology	BIOL 4314	Biological Sciences	UG/G	This hands-on field course will be held in Churchill, MB. While participating in ongoing monitoring and research, students will learn techniques for estimating wildlife abundance, distribution, behaviour, and reproductive parameters.	Sustainability Related
Revegetation of Disturbed Lands	BIOL 4400	Biological Sciences	UG/G	A physiological and ecological study of disturbed plant communities with emphasis on stresses associated with both mining activities and agricultural practices and processes of assisted recovery.	Sustainability Related
Comparative Animal Energetics	BIOL 4460	Biological Sciences	UG/G	Energetic strategies of animals living in ecologically diverse environments. Integration of physiological, morphological and behavioural adaptations with an emphasis on vertebrate species.	Sustainability Related
Biology and Society	BIOL 4650	Biological Sciences	UG/G	An exploration of the intersection of biology with society and the societal implications of research in areas such as genetics, biotechnology, ecology and evolution through lectures and tutorials. The course will examine how biological research is presented in the public sphere, and consider common public misunderstandings of the science. Students will examine some of the ethical issues that arise in the practice and application of biological sciences and develop skills in the communication and clarification of biological principles to the public.	Sustainability Related
Field Ecology of African Mammals	BIOL 4800	Biological Sciences	UG/G	Lectures, field studies and research projects on a selected topic. Course content to vary from year to year depending on instructor.	Sustainability Related
Critical Thinking in Biological Sciences	BIOL 7220	Biological Sciences	G	A core graduate level course within the Ph.D. program designed to stimulate discussion and thought in key areas applicable to the student's research discipline.	Sustainability Related
Biomedical Ethics	BME 7040	Biomedical Engineering	G	The goal of this course is to introduce the ethical issues encountered in biomedical research. The course presents several actual examples and offers the fundamental ethical rules of any biomedical research.	Sustainability Related
Precision Agriculture – Technological Tools for Decision Making	BIOE 0222	Biosystems Engineering	UG	Precision agriculture is a philosophy of agricultural management that has been enabled by modern technology. This course will examine both the technology and the techniques that can be used to improve the efficiency of agricultural operations by decreasing costs, increasing profits, and decreasing hazards to the environment. Students will be introduced to current and emerging technologies for crop, livestock and business management. Students will have the opportunity to apply data generated from these technologies to support decision making required by farm managers.	Sustainability Related
Agricultural Buildings and Environments	BIOE 0700	Biosystems Engineering	UG	Factors that impact the practicality of farm buildings. Components of buildings, including materials and construction techniques. Techniques of maintaining building environments to facilitate production and/or storage.	Sustainability Related
Impact of Engineering on the Environment	BIOE 2480	Biosystems Engineering	UG	Students will gain an understanding of overall sustainability of industrial activities, life-cycle assessment techniques for sustainability, and design improvements to enhance environmental performance of engineered systems. This course will introduce basic methodologies for conducting environmental impact assessments, including physical, chemical, ecological, social and economic impacts.	Sustainability Focused
Biosystems Engineering Design 1	BIOE 2900	Biosystems Engineering	UG	An introduction to the professional discipline of Biosystems Engineering and the philosophy of systems thinking that is used by the Biosystems engineer. Students will be introduced to several principles (i.e., safety engineering, human factors engineering and biomimicry) that should be considered during the design process, and will be given opportunity to apply these principles to design problems. The course will provide opportunity for students to develop technical communication, project management and teamwork skills.	Sustainability Related
Engineering Properties of Biological Materials	BIOE 3320	Biosystems Engineering	UG/G	This course emphasizes the importance of understanding the properties of biological materials and the design of engineered systems. The discussion focuses on the	Sustainability Related

				definition and the measurement of mechanical, optical, water-retaining, rheological and thermal properties of biological materials.	
Biosystems Engineering Design 2	BIOE 3900	Biosystems Engineering	UG	An introduction to the use of reverse engineering to deduce design features from previously-designed products or systems. Considerations such as design for sustainability and design for disassembly will be discussed. Students will have opportunity to use reverse engineering principles i) to understand how components fit together to form functional systems, ii) to identify flaws and iii) to propose design improvements. Students will learn appropriate techniques for documenting the reverse engineering process. Theory of project management will also be taught and discussed.	Sustainability Focused
Management of By-Products from Animal Production	BIOE 4590	Biosystems Engineering	UG/G	Topics covered include solid and liquid manure, manure characteristics, manure collection, storage, land application and utilization, biological treatment, design of equipment and facilities for manure handling. Environment issues, such as odour and water pollution associated with manure management will also be discussed.	Sustainability Related
Remediation Engineering	BIOE 4620	Biosystems Engineering	UG/G	The theoretical basis for the engineering design of different remediation technologies to treat contaminated soil and groundwater will be introduced. Methods for site characterization, monitoring of progress in remediation, and modeling of the remediation process will be presented. Different methods such as soil washing, air sparging, bioremediation, phytoremediation, constructed wetlands, electrokinetic remediation, reactive barriers will be discussed	Sustainability Related
Bioremediation	BIOE 7280	Biosystems Engineering	G	An opportunity to extend, update or acquire specialized knowledge in particular area of interest.	Sustainability Related
Sustainability in the Textile Industry	BIOE 7220	Biosystems Engineering	G	Advanced work in a specialized field involving engineering applications to biological systems.	Sustainability Focused
Bioresource Engineering and Sustainability	BIOE 7350	Biosystems Engineering	G	Students will gain an understanding of overall sustainability of industrial activities, energy usage, and resource depletion. Course topics will include: environmental emissions (as it relates to air and water pollution, solid and hazardous wastes, noise and traffic impacts); life-cycle assessment and related techniques for evaluating sustainability; design improvements to enhance environmental performance of engineered systems; and methodologies for assessing social and economic impacts of new developments.	Sustainability Focused
Planning Theory 1	CITY 7030	City Planning	G	The principal ideas and ideals influencing planning thought and practice, ranging from rational comprehensive planning to theories of societal guidance, ethics and the human-environment interface.	Sustainability Related
Housing and Urban Revitalization	CITY 7070	City Planning	G	Housing and urban revitalization in the Canadian context. Housing demand and supply, structure of the housing market, Canadian housing policy, affordability and other selected housing issues; processes and strategies related to urban decline and revitalization.	Sustainability Related
Urban Development	CITY 7340	City Planning	G	The mechanics of urban development and its socio-economic implications and underlying political forces. Practical field experience is involved in the form of an internship	Sustainability Related
Planning Design 1	CITY 7410	City Planning	G	Studio/workshop developing problem solving techniques and design skills in an area subject to environmental, social and economic change. Preparation of a planning report comprising of research and analysis, evaluation of feasible alternative strategies and designs, synthesis and recommendations for implementation. Case studies from planning journals and planning practice in cities and regions.	Sustainability Related
Planning Design 3	CITY 7430	City Planning	G	The application of urban design theories and techniques to a large scale urban area of complex land uses and community development issues. The studio is also open to advanced students in architecture, landscape architecture and interior design and develops a broad approach to multi-disciplinary problem solving design solutions	Sustainability Related
Environmental Engineering Analysis	CIVL 3690	Civil Engineering	UG/G	Introduction to environmental engineering analysis concept, risk assessment, colloidal dispersions, mass balances, reaction kinetics, and reactor design principles. Water	Sustainability Related

				pollution and water quality in rivers and lakes. Physical, chemical and biological unit operations and processes applied in water and/or wastewater treatment. Meteorology and air pollution; atmospheric dispersion. Solid waste management issues.	
Environmental Engineering Design	CIVL 3700	Civil Engineering	UG/G	Design principles are developed for water, solid/soil and air pollution control. Application of the principles in design projects which may include surface and groundwater remediation, solid waste management, landfilling, soil remediation and site assessment; municipal and industrial wastewater treatment; odour and air pollution abatement facilities	Sustainability Related
Hydrology	CIVL 3750	Civil Engineering	UG/G	Basic hydrological processes; precipitation; evapotranspiration; infiltration and runoff; analytical methods; hydrograph theory and application; application to reservoir design; project floods and flow forecasting; statistical analysis	Sustainability Related
Environmental Systems	CIVL 4180	Civil Engineering	UG/G	Development of a river water quality model; waste allocation modelling; modelling of the sites selection process; analysis of environmental impact using technical and non-technical (i.e. sociological, ethical, aesthetic) parameters.	Sustainability Related
Geotechnical Design	CIVL 4220	Civil Engineering	UG/G	Site characterization; design and construction of surface footings, deep foundations, tunnels, earth and rock support systems; design and remediation of slopes; frozen soils and foundation design; geosynthetics and geofabrics in geotechnical construction; reinforced earth; geoenvironmental issues; tailing dams, clean-up, and remediation.	Sustainability Related
Design of Urban Water Systems	CIVL 4300	Civil Engineering	UG/G	Water supply and the design of water distribution systems. Urban hydrology and design of wastewater and stormwater collection systems. Manitoba specific applications will be discussed.	Sustainability Related
Water Resources Planning and Management	CIVL 4360	Civil Engineering	UG/G	Introduction to the theory and application of water resources planning and management as a constrained optimization problem with multiple conflicting objectives. Water laws including international, inter-provincial and local regulations will be discussed. The process for planning a water resource project, including identifying the problems and opportunities, resource and demand forecasting, plan formulation and evaluation, and optimization will be discussed.	Sustainability Related
Transportation Engineering Design	CIVL 4400	Civil Engineering	UG/G	Concepts of risk and design in transportation engineering. Bicycle and pedestrian integrated design. Design of public transportation systems. Design of sustainable streets and communities. Commercial vehicle operations. Design for trucks. Introduction to pavement engineering and design. Elements of railway engineering. Legislative and policy framework for transportation engineering.	Sustainability Related
Climate Change and Civil Engineering	CIVL 4500	Civil Engineering	UG/G	This course will cover contemporary topics in Civil Engineering. The specific topics and a detailed outline will be available at the time of registration prior to the start of the registration period for the session in which the course will be offered.	Sustainability Related
Design Project	CIVL 4590	Civil Engineering	UG/G	An interdisciplinary project-based course involving engineering design, teamwork and delivered in studio format. Students are expected to work in pre-assigned teams under the guidance of professional engineers on a pre-determined project. Lecture material will cover project management, construction, environmental and economic issues. Each team will be required to give an oral presentation of their design project.	Sustainability Related
Water Resources Systems	CIVL 7090	Civil Engineering	G	The application of operations research/systems analysis techniques to water resources and urban and environmental systems	Sustainability Related
Advances in Water Treatment	CIVL 7200	Civil Engineering	G	Includes topics such as energy and the environment, solid waste management, and environmental problems in transport. Topics are studied through case histories of contemporary issues.	Sustainability Related
Environmental Engineering Laboratory	CIVL 7950	Civil Engineering	G	Laboratory work in water and wastewater analysis and treatment processes related to water quality management.	Sustainability Related
Health & Health Services of First	CHSC 7220	Community Health Sciences	G	Seminar-based course critically examines First Nations, Metis and Inuit health status, health care services, historical assumptions about indigenous populations, and 'pre-	Sustainability Related

Nations, Metis & Inuit Peoples				Canada' world events influencing European colonization of this land with resultant marginalization of original indigenous Peoples.	
Health Policy and Planning	CHSC 7300	Community Health Sciences	G	This course defines health policy and describes the planning and decision-making process. Case studies will be used to illustrate and critique the substance, process and outcome of policy papers that address contemporary policy issues.	Sustainability Related
Cultural Perspective on Illness and Medical Practice	CHSC 7330	Community Health Sciences	G	The objective of this course is to make students aware of the ways in which disease, illness, and medical practice are socially and culturally mediated. The course will examine cultural influences on the experience and expression of illness and consider the medical practitioner's role in the development and provision of culturally responsive health care.	Sustainability Related
Core Concepts in Public Health	CHSC 7500	Community Health Sciences	G	Public Health is a multi-disciplinary field of inquiry and practice that addresses the social and biological dimensions of population health. This course represents part one (with CHSC 7502) that is designed to provide students with a breadth of exposure to core competencies and content areas important to public health practice. This course provides students with an introduction to the historical and current theoretical debates relating to the science and art of protecting, promoting and restoring the health of the population through organized societal activity, public health law and ethics. Students will also gain relevant introductions to inequities in health, Indigenous health, environmental and occupational health, knowledge translation, and so forth. Specific content for each part of the two courses will be structured in such a way to complement more advanced program offerings in these topic areas.	Sustainability Related
Problem Solving in Public Health	CHSC 7510	Community Health Sciences	G	This seminar based course focuses on current issues and topics in community health to advance skills of thinking critically and communicating clearly about practical solution to public health problems.	Sustainability Related
Principles of Epidemiology	CHSC 7520	Community Health Sciences	G	This course will introduce the basic concepts and methods of epidemiology, including the definition and measurement of health status and health determinants in populations, assessing health risks and inferring causation, and issues in the design and analysis of population health studies.	Sustainability Related
Applied Public Health Epidemiology	CHSC 7530	Community Health Sciences	G	This course builds on the Principles of Epidemiology course through an applied focus. It discusses the application of epidemiological principles in applied public health practice including the investigation of outbreaks, disease surveillance and the basic concepts of social network analysis, vaccine epidemiology and mapping. Students will also gain an understanding of the principles of prevention in public health practice, the benefits of qualitative methods and the role of the laboratory in outbreak investigation. They will receive instruction on the use of software for database development, data entry, analysis, and presentation of results.	Sustainability Related
Social Aspects of Aging	CHSC 7710	Community Health Sciences	G	This course is an advanced seminar designed to examine current social issues in aging. The course is organized around selected topics related to aging. Where possible, the Canadian experience will be compared to international trends and diversity will be highlighted. The first section is a review of the field of gerontology, ageism, demographic trends, theoretical perspectives and methods and the second section explores contemporary social issues. This course is a required course for the Graduate Specialization in Aging Certificate.	Sustainability Related
Disability Studies	DS 7010	Disability Studies	G	Explores the key concepts and issues in disability studies. Includes a critical examination of models and theories of disability, Canadian and other national laws and international standards, social and economic policy, and professional and service responses.	Sustainability Related
Environment and Disability	DS 7040	Disability Studies	G	One key theme will be chosen for each year from the interests and availability of faculty. Topics could include women with disabilities, international dimensions of disability, disability policy and practice, disability organizing and other topics developed over time.	Sustainability Related

Global Disability Studies	DS 7040	Disability Studies	G	One key theme will be chosen for each year from the interests and availability of faculty. Topics could include women with disabilities, international dimensions of disability, disability policy and practice, disability organizing and other topics developed over time.	Sustainability Related
Introduction to Canadian Economic Issues and Policies	ECON 1210	Economics	UG	The general purpose of this course is to examine Canadian microeconomic issues and policies from a broad based economic perspective. This course introduces the standard microeconomic tools, concepts and analysis and contrasts them with their theoretical and institutional critics.	Sustainability Related
Introduction to Global and Environmental Economic Issues and Policies	ECON 1220	Economics	UG	A survey of some major principles and policies characterizing the world economy and the environment.	Sustainability Related
Community Economic Development	ECON 2350	Economics	UG	A study of the economic development problems of northern and Indigenous communities in Manitoba.	Sustainability Related
Economics of Gender	ECON 2362	Economics	UG	This course will use both neo-classical and feminist economic theory to explore how gender differences may lead to different economic outcomes for men and women, both within families and in the marketplace. Topics covered may include gender aspects of production (both inside and outside the household), leisure, marriage and divorce, fertility, childcare, education, migration, aging and development.	Sustainability Related
Introduction to Environmental Economics	ECON 2390	Economics	UG	The economics of management of water, air and land resource quality, and the economics of conservation. The economic implications of environmental standards, licensing, criteria and pollution charges will be illustrated by current issues.	Sustainability Related
Political Economy 1: Production and Distribution	ECON 2540	Economics	UG	A study of the theories, institutions, policies and relations of power in national and global economic society with reference to the production of market and non-market goods and services and the distribution of necessary and surplus output. Particular attention will be given to the role of the state in the regulation of markets and the distribution of surplus.	Sustainability Related
Political Economy 2: Economic Growth and Fluctuations in a Global Economic Environment	ECON 2550	Economics	UG	A study of the theories, institutions, policies and relations of power in national and global economic society with reference to economic growth, international trade and finance, economic fluctuations, inflation and unemployment. Particular attention will be given to the role of the state in the regulations of macroeconomic activity.	Sustainability Related
An Introduction to Development Economics	ECON 3392	Economics	UG/G	The definition and major challenges of development and an introduction to theories of growth and development.	Sustainability Related
Economic Determinants of Health Advanced	ECON 3692	Economics	UG/G	This reading course will vary from year to year depending on the needs of students and the interests of instructors.	Sustainability Related
Development Economics: Problems and Policies	ECON 3394	Economics	UG/G	Processes and problems of development policies to accelerate change. Economic relations between developed and developing regions.	Sustainability Related
International Trade	ECON 3670	Economics	UG/G	A study of the theory of international trade and modern trade issues including the effect of economic integration on growth, distribution, national policy and the environment.	Sustainability Related
Topics in Environmental Health	ECON 4490	Economics	UG/G	This readings course will vary from year to year depending on the needs of students and the interests of instructors. The course content may vary. Students can earn multiple credits for this course only when the topic subtitle is different.	Sustainability Related
Health Economics and the Economic Determinants of Health	ECON 7300	Economics	G	Intensive study of advanced work in a selected field of economics. The course content may vary. Students can earn multiple credits for this course only when the topic subtitle is different.	Sustainability Related
Pedagogy for Sustainable Well-being: Science, Mathematics and Social Studies	EDUB 4010	Education Curric, Tchg, & Lrng	UG/G	An exploration and critical reflection on theory, research, and practice in education for sustainability in science, mathematics, and social studies and the ways in which multiple literacies can assist children in consolidating their knowledge and understanding of sustainable well-being.	Sustainability Related

Technology, Society and the Future	ENG 3020	Engineering	UG/G	Impact of technology and technological change on society-past, present, future; specific technologies, e.g. construction. machine power, computers, communications, medical, military: the process of technological change; invisible effects of technology; technology and resource use; sustainable development, limits to growth and the role of technology.	Sustainability Focused
Decolonizing and Indigenizing Engineering	ENG 4100	Engineering	UG/G	This course will cover contemporary topics relating to the practice of professional engineering. The specific topics and a detailed outline will be available prior to the start of the registration period for the session in which the course will be offered	Sustainability Related
Beekeeping	ENTM 0610	Entomology	UG	Introduction to beekeeping that includes economics and marketing of honey and beeswax, equipment and its construction, pollen and nectar plants, pollination, management systems, diseases and pests, honey handling, package bees, wintering of bees, etc.	Sustainability Related
Insect Pest Management	ENTM 0620	Entomology	UG	Characteristics, damage, and identification; insecticide use and safety; life histories and control of common Manitoba livestock, field and farmyard insects. General principles of pest management in agriculture will also be discussed.	Sustainability Related
World of Bugs	ENTM 1000	Entomology	UG	A survey of insect biology and life styles with emphasis on insect diversity and human-insect interactions.	Sustainability Related
Veterinary and Wildlife Entomology	ENTM 3160	Entomology	UG/G	An introduction to the insects and their relatives that affect domestic animals, pets and wildlife. Special consideration is given to life histories, insect/host interaction, evolutionary relationships, impact on host vertebrates and pest management. Not all courses are offered every year.	Sustainability Related
Crop Protection Entomology	ENTM 3170	Entomology	UG/G	A course for students requiring a foundation in entomology and knowledge of major insect pest groups in Western Canada. The pests and principles for their control (chemical, cultural, mechanical, physical and biological methods) are explored with emphasis on the entire ecosystem.	Sustainability Related
Introduction to Applied Entomology	ENTM 3190	Entomology	UG/G	A course providing a foundation in applied entomology covering topics including: basic insect biology, insect pest management, insect biodiversity and the biological services provided by insects. Online lecture presentations, weekly readings and online laboratories.	Sustainability Related
History of Designed Environments	EVLU 3000	Envir. Design Landsc & Urban	UG/G	A critical examination and appraisal of design for dwelling in the context of settlement with emphasis on representation of diverse positions on key issues in design practice. Studies will include consideration of cross cultural precedents and lessons from around the world.	Sustainability Related
Site Planning	EVLU 3002	Envir. Design Landsc & Urban	UG/G	An investigation of the relationship between natural and cultural processes in the formation of the built environment, including a review of the methods and strategies employed for site programming, inventory, analysis, and development at different scales of intervention.	Sustainability Related
Ecology and Design 2	EVLU 3004	Envir. Design Landsc & Urban	UG/G	This course will focus on an examination of ecological and technological perspectives on the planning, design and making of the physical environment. This will include a meshing of prediction and advocacy concerning new models of sustainable urbanization, focusing on green technology and infrastructure. Key theories and their application to landscapes at varied scales will be considered along with salient literature, current issues, design precedents and potentials for creative expression and interpretation.	Sustainability Focused
Studio 3	EVLU 3006	Envir. Design Landsc & Urban	UG/G	A studio/lecture course that examines the notion of dwelling through spatial design with a concentration at the scale of the precinct in the private to semi-private realm focusing on the needs of the individual, on spatial qualities, materials, and site design detail. Theoretical, analytical, conceptual, design, planning and communication skills in landscape + urbanism will be developed and applied in distinct projects. Emphasis is on habitat by design, issues of contested space, ecological design and sustainability. The course may include a field trip (location and cost to be determined on a yearly basis) and will include an obligatory pre-term drawing workshop.	Sustainability Related

Studio 4	EVLU 3008	Envir. Design Landsc & Urban	UG/G	A critical exploration of analytical, conceptual, and developmental aspects of design of the public realm in an experimental studio setting. Social, political, economic, communication, and ecological networks will be studied at the scale of neighborhood and community in the urban realm.	Sustainability Related
Landscape and Urbanism Theory	EVLU 3010	Envir. Design Landsc & Urban	UG/G	An examination through lectures, readings, seminars and essay assignments, of twentieth and twenty first century philosophical thinking, which has been influential in the theory and practice of landscape architecture, planning and urbanism. Emphasis is on ideas, paradigms, and manifestos. This will include a study of the social, political, religious, cultural, technological, and aesthetic forces behind landscape and urbanism, and the forms that these forces have generated.	Sustainability Related
Site Morphology + Grading	EVLU 3012	Envir. Design Landsc & Urban	UG/G	An examination of the means and methods used to create landscapes that are shaped by earthwork grading. This will include the study of the forces, principles, and techniques in the modelling and manipulation of the ground plane and the resolution of cultural, ecological and hydrological design considerations implicit in landform design. The course may include a pre-term drafting workshop.	Sustainability Related
Philosophy, Ethics and Aesthetics	EVLU 4000	Envir. Design Landsc & Urban	UG/G	An examination of philosophical issues and debates regarding ethics and aesthetics, and their influence and potential upon urban design and urban form in the past and present, and to speculate upon the future.	Sustainability Related
Equitable Cities	EVLU 4006	Envir. Design Landsc & Urban	UG/G	This course will involve a critical examination of specific topics such as: health and community design; inner city environments; and Canadian community planning and design, and its contexts.	Sustainability Related
Plants, Ecosystems and Design	EVLU 4008	Envir. Design Landsc & Urban	UG/G	The examination of cultural and technical aspects of designing with plants will be explored in an urban context through field investigations, lectures, seminars and assignments. Issues of plant identification, planting design types, their application to contemporary landscape architecture, technical requirements, planting details and ecological integration in the urban environment will be included.	Sustainability Related
Studio 5	EVLU 4012	Envir. Design Landsc & Urban	UG/G	A radical exploration of analytical, conceptual, and socio-political aspects of urban public place in an experimental studio setting. An emphasis will be placed on design as mediation between competition demands. The studio incorporates the theory and application of three dimensional simulation technology in design.	Sustainability Related
Studio 6	EVLU 4014	Envir. Design Landsc & Urban	UG/G	This studio integrates planning and design from the scale of urban infrastructure through to design detail in the context of landscape and urbanism. An emphasis is placed on the challenges of relevant equitable environmental and social design in the post-industrial world. The studio incorporates the theory and application of CAD and GIS technology in design.	Sustainability Related
Principles of Urban Design	EVLU 4018	Envir. Design Landsc & Urban	UG/G	This course will examine urban design principles, practices, and applications including political and social systems, and their impacts on the contemporary urban condition.	Sustainability Related
Environmental Science 1 – Concepts	ENVR 1000	Environment	UG	This course will introduce students to the conceptual framework of the environment by examining its physical, biological, and social components. General topics to be considered will include ecological principles and the responses of natural and managed systems to disturbance; population growth; biodiversity and conservation; and environmental sustainability.	Sustainability Focused
Environmental Science 2 – Issues	ENVR 2000	Environment	UG	This course will briefly review the major features of the structure and function of natural systems along with the degree to which these have been compromised. The main component of the course, however, will concentrate on the identification of the issues that underlie environmental degradation, while exploring alternative conditions that have the potential to reverse current trends and ultimately contribute to ecological sustainability.	Sustainability Focused

Introductory Toxicology	ENVR 2180	Environment	UG	A survey of general principles underlying the effects of toxic substances on biological systems, including consideration of the history, scope and applications of toxicology, the mechanisms of toxic action, and some major types of toxicants.	Sustainability Related
Technical Communication in the Environmental Sectors	ENVR 2350	Environment	UG	An introduction to technical communication skills required for environmental practitioners in research, government, and industry. The course covers technical writing and literature search techniques, business writing including reports, memos and e-mails, professional presentation skills, and fundamental internet skills. Practical experience is gained through assignments and laboratory exercises.	Sustainability Related
Environmental Chemistry	ENVR 2550	Environment	UG	An introduction to the chemistry of the environment. Emphasis will be on the composition of the natural environment and the processes of natural and human-introduced chemical species that take place within it. The course will provide students with the chemical basis for understanding the environment and environmental problems.	Sustainability Related
Environment and Tourism	ENVR 3000	Environment	UG	Selected topics of current interest in the Environmental Sciences and Studies. Course content to vary with each offering depending on the needs and interests of students and faculty.	Sustainability Related
Aquatic Ecosystem Services	ENVR 3140	Environment	UG/G	Selected topics of current interest in the Environmental Sciences and Studies. Course content to vary with each offering depending on the needs and interests of students and faculty.	Sustainability Related
Environment and Tourism	ENVR 3000	Environment	UG/G	Selected topics of current interest in the Environmental Sciences and Studies. Course content to vary with each offering depending on the needs and interests of students and faculty.	Sustainability Related
Environmental Conservation and Restoration	ENVR 3110	Environment	UG/G	Environmental conservation and restoration are introduced and approaches based on science and traditional knowledge are contrasted. An emphasis is placed on systems thinking and both local and international case studies.	Sustainability Related
Environmental Responsibilities and the Law	ENVR 3160	Environment	UG/G	Environmental responsibilities and their legal framework in terms of policies, legislation, standards and guidelines and the tools to manage responsibility are examined through lectures, case study review and discussion. Environmental liability and due diligence are reviewed in relation to responsibilities of organizations and individuals. Strategies to manage environmental liabilities, including environmental and risk assessment, are also discussed.	Sustainability Related
Environmental Assessment	ENVR 3250	Environment	UG/G	The theory, principles and practices of environmental assessment as a planning and decision-making process to identify and mitigate adverse effects of development projects. Environmental assessment is defined in the context of federal and provincial legislation, and applicable standards and guidelines. Laboratory assignments involve practical experiences, case study review and basic report preparation.	Sustainability Related
Introduction to Environment and Health	ENVR 3400	Environment	UG/G	An overview of the linkages between human health and environmental issues. The course discusses the nature of environmental hazards, human exposure and health outcomes. Major environmental and human health issues such as air pollution, hazardous substances, endocrine disruptors and products in the home are covered.	Sustainability Related
Green Building and Planning	ENVR 3750	Environment	UG/G	An overview of the concepts and tools of Green building design and Green Planning. The course covers the history and trends in Green Building and Planning, related policies, tools and techniques. There is a strong emphasis on learning from local case-studies through seminars and field trips.	Sustainability Related
Sustainable Manitoba	ENVR 3850	Environment	UG/G	This course approaches local sustainability issues from an interdisciplinary perspective. By looking at the ecological, social and economic aspects from a variety of discipline perspectives, a fuller understanding of sustainability is achieved. The broad range of perspectives is achieved through participation of guest speakers from other faculties and outside of the university as well as excursion outside the classroom.	Sustainability Focused
Political Ecology, Discourse and Power	ENVR 4000	Environment	UG/G	This course will introduce students to the field of political ecology with a specific focus on how it can help us understand contemporary forms of environmentalism. While concern	Sustainability Related

				for nature has been a longstanding part of civilization, in the past 50 years, environmentalism has become intertwined with all aspects of life. Yet, at the same time, the environmental crisis grows. Political ecology, as a field of academic and activist study that examines human-environment interactions for their political and economic subtexts, can provide a useful lens on understanding this paradox. Political Ecology has the promise to illustrate the motivations for, ideologies behind, and consequences of contemporary expressions of environmentalism.	
Applied Qualitative Research: Making a Difference	ENVR 4000	Environment	UG/G	Selected topics of current interest in the Environmental Sciences and Studies. Course content to vary with each offering depending on the needs and interests of students and faculty.	Sustainability Related
Human Dimensions of Wildlife	ENVR 4000	Environment	UG/G	Selected topics of current interest in the Environmental Sciences and Studies. Course content to vary with each offering depending on the needs and interests of students and faculty.	Sustainability Related
Winnipeg's Urban Nature	ENVR 4000	Environment	UG/G	Selected topics of current interest in the Environmental Sciences and Studies. Course content to vary with each offering depending on the needs and interests of students and faculty.	Sustainability Related
Geotourism: Geology and Culture	ENVR 4000	Environment	UG/G	Selected topics of current interest in the Environmental Sciences and Studies. Course content to vary with each offering depending on the needs and interests of students and faculty.	Sustainability Related
Environmental Effects Monitoring	ENVR 4000	Environment	UG/G	Selected topics of current interest in the Environmental Sciences and Studies. Course content to vary with each offering depending on the needs and interests of students and faculty.	Sustainability Related
Decision Making for Sustainability	ENVR 4000	Environment	UG/G	Selected topics of current interest in the Environmental Sciences and Studies. Course content to vary with each offering depending on the needs and interests of students and faculty.	Sustainability Focused
Ecosystem Management	ENVR 4050	Environment	UG/G	This course will provide students with an understanding of the practical applications of ecological science, environmental policy, and resource management approaches in the large-scale planning of landscapes. The course will review ecological principles and trace the historical development of the ecosystem concept. Comparisons are made to other possible environmental management approaches. The synthesis of major elements and concepts will be reinforced through case studies on the Manitoba landscape, with an emphasis on practical learning by students through field seminars and group discussions	Sustainability Focused
Biogeography	ENVR 4060	Environment	UG/G	This course will provide students with a general understanding of the historical, ecological, analytical, and conservation aspects of biogeography. The course will also have a dual focus on the principles and concepts of reasons for the distribution of plants and animals worldwide, as well as incorporating discussion on as many local (Manitoba, Canada, North America) examples as possible.	Sustainability Related
Critical Thinking and the Environment	ENVR 4110	Environment	UG/G	Topical issues and responses regarding the environment including conservation, management, and policy making are critically evaluated at local, national, and global scales. Term projects emphasizing applied work with environmental organizations and researchers are presented.	Sustainability Related
Advanced Issues in Environment and Health	ENVR 4400	Environment	UG/G	An evaluation of global and local environmental health issues and the assessment and management tools used to manage these risks. Case studies of environmental issues and their human health effects are covered. Students have the opportunity to work on a substantial interdisciplinary environmental health project.	Sustainability Related
Aquatic Chemistry	ENVR 4550	Environment	UG/G	An examination of biogeochemical processes affecting the distribution, speciation and bioavailability of chemical substances in the aquatic environment. The theoretical basis for the chemical behaviour of natural water systems is discussed, as well as the description of the processes involved in wastewater treatment	Sustainability Related

Advanced Issues in Environmental Law and Policy	ENVR 4650	Environment	UG/G	This course provides an in-depth review of Canadian law and policy relating to environmental protection and management. In particular, the course describes the laws governing a variety of topics related to the environment, including constitutional responsibilities, federal and provincial environmental legislation, water law, parks and protected areas, wildlife and fisheries management, species at risk, and international law including climate change.	Sustainability Related
Climate and Society	ENVR 4800	Environment	UG	This course takes an interdisciplinary approach to explore the social causes, consequences, and necessary responses to climate change including adaptation and mitigation. It identifies key concepts and analytic approaches that assist with identifying the social, economic, political, and cultural processes that both drive climate change and influence responses. In particular, it engages with human environment relationships and the role of diverse values, identities, knowledge systems and emotions, and the differential amounts of power held across social groups. Examples will be drawn from the global North and South and at multiple scales from the local to global.	Sustainability Focused
Wildlife Management	ENVR 4850	Environment	UG/G	This course provides students with an understanding of relevant theory and practice in wildlife management. Topical management issues will be studied, selected through consultation with government and NGOs in Manitoba. There will be field trips and lab activities.	Sustainability Related
Advanced Methods in Geomatics	ENVR 4872	Environment	UG/G	This course focuses on the theory and application of geomatics in spatial problem solving in geography and the environment. The use of geomatics' technologies including GIS, Earth observation and spatial numerical methods will be covered. Students will learn the theoretical underpinning of spatial statistical concepts and will experiment with data exploration, inference and hypothesis testing. Lab assignments will provide practical experience with GIS and other geomatics software as well as CRAN-R.	Sustainability Related
Earth: A User's Guide	EER 1000	Environment, Earth & Resources	UG	This course will present a multi-disciplinary introduction to the Planet Earth as both the source of essential resources and as the site of resulting negative impacts. Focus in the course will be provided by addressing important and current topics, case studies, and concepts that the well-educated citizen of the Earth should understand and will include natural and human-induced processes within a broad range of spatial and temporal scales.	Sustainability Related
Architectural Technology 1 – Structural and Sustainable Use of Materials	EVAR 3004	Environmental Architecture	UG/G	Construction materials and structural theory in the analysis and design of simple wood-frame, masonry and light steel construction; fundamental passive energy systems and design strategies for material and energy reduction.	Sustainability Focused
Architecture Design Studio	EVAR 3008	Environmental Architecture	UG/G	An architectural study of the human condition in relation to the natural and built environment through design oriented research exploration, analysis, evaluation and interpretation of a selected subject of inquiry. Various ways of seeing and making are applied as tools for critical thinking to align content with modes of representation.	Sustainability Related
Architecture Design Studio 2	EVAR 3010	Environmental Architecture	UG/G	Building upon first term explorations, architectural propositions are developed that seek to clarify relations between human inhabitation and the physical environment in a regional context. Design principles influenced by programmatic, theoretical, historical, technological material and environmental criteria are examined.	Sustainability Related
Architecture Design Studio 3	EVAR 4004	Environmental Architecture	UG/G	This studio focuses on the broader cultural implications of social interaction and the collective inhabitation of the built and natural environments. Architecture design explorations are influenced by a thorough examination of programmatic, theoretical, historical, technological, material and environmental criteria.	Sustainability Related
Architectural Technology 4 – Comprehensive Design Technology Report	EVAR 4008	Environmental Architecture	UG/G	A technical knowledge project-based course integrating with Arch Studio 4. Comprehensive technology issues include: site; material; energy; structures; construction; sustainability; environmental factors; building code; life safety. Student's work will include analysis, technical drawings and calculations.	Sustainability Focused

Architecture Design Studio 4	EVAR 4010	Environmental Architecture	UG/G	The previous terms investigations are further developed and synthesized into a comprehensively designed environment. Architectural propositions seek to clarify specific relations between details and the overall design, through the integration of complex social, cultural, programmatic, theoretical, historical, technological, material and environmental principles, systems and criteria.	Sustainability Related
Introduction to Environmental Design	EVDS 1600	Environmental Design	UG	An introduction to the philosophies, theories, practices, processes and methods that collectively compose the discipline of Environmental Design. The focus will be on the social, environmental, and technological issues that shape the built environment and on an examination of the challenges and roles facing environmental designers in the contemporary world.	Sustainability Related
Visual Literacy	EVDS 1602	Environmental Design	UG	This course examines the contemporary visual and spatial environment, its critical historical influences and emerging cultural issues. The structure of image and form, the foundations of spatial and visual knowledge and the importance of materiality as they pertain to Environmental Design will be advanced as well as disciplinary appropriate methods of communication.	Sustainability Related
History of Culture, Ideas and Environment	EVDS 1660	Environmental Design	UG	Historical survey of key works from the foundations of civilization to the Enlightenment, including interdisciplinary perspectives in art, architecture, interior design, landscape architecture and urban planning considered in the physical, socio-economic, political, artistic and cultural contexts.	Sustainability Related
History of Culture, Ideas and Environment 2	EVDS 1670	Environmental Design	UG	A historical survey of western movements in art, architecture, interior design, landscape architecture and urban planning considered within the physical, socio-economic, political, artistic and cultural context. An introduction to the historical influence of the art, design and culture of non-western traditions will be included. Emphasis is on works created after the Enlightenment.	Sustainability Related
Environmental Technology	EVDS 1680	Environmental Design	UG	An examination of the scientific principles embodied in the natural laws which govern the science and technology of building, landscape and environmental design in the context of sustainable development. Factors of climate, geology and natural resource systems and their effects upon the built environment at a range of scales are introduced.	Sustainability Focused
Ecology and Design	EVDS 2200	Environmental Design	UG	An examination of principles of Ecology and Design works in which these tenets are considered, engaged, and/or demonstrated. Topics fundamental to the science of Ecology will structure the course content. Emphasis will be placed on understanding the forces and systems working within and between natural, social and human environments.	Sustainability Related
Materials and Assemblies	EVDS 2300	Environmental Design	UG	This course provides an introduction to applied statics, construction materials and construction system assemblies for landscape, building, and interior constructions. Construction material properties and applications, including impacts on resource depletion and on sustainable building practices will be introduced along with basic strategies and methods to analyze and calculate forces in simple structures.	Sustainability Related
Natural and Human Systems	EVDS 2702	Environmental Design	UG	An application of the scientific principles embodied in the natural laws which govern environmental design. Aspects of the bio-physical factors, energy, human physiology and perception, comfort, and resource management are reviewed in the context of sustainable Sustplanning and design practices.	Sustainability Focused
Design Studio 2	EVDS 2900	Environmental Design	UG	An exploration of the fundamental relationships between space, form and order in the context of the built environment, from body to place. Pedagogical emphasis will be directed towards design process, cultural intentions, and environmental accountability.	Sustainability Related
Materials, Assemblies and Detailing	EVIE 3004	Environmental Interior Environ	UG/G	Workshop and lecture course on materials, joinery and invention. Review of the principles of framing, bracing, and tension applied to casegoods and furniture; exploration or a variety of soft and hard materials and constructions with an emphasis on sustainability.	Sustainability Related

Interior Light and Colour	EVIE 3012	Environmental Interior Environ	UG/G	This course examines interior lighting and colour theories and concepts emphasizing human and ecological issues, exploration of spatial design strategies and practices.	Sustainability Related
Human Factors and Environmental Experience	EVIE 3014	Environmental Interior Environ	UG/G	Theoretical and practical issues related to human characteristics, needs, behaviours, and interactions with and within the built interior environment.	Sustainability Related
Indoor Systems 1	EVIE 4002	Environmental Interior Environ	UG/G	In-depth, whole building examination of various integrated active and passive environmental controls systems. Focus on working with existing commercial building construction and environmental systems when integrating new interior design and ecological concepts and strategies. Introduction to building performance assessment, construction drawings and schedules.	Sustainability Related
Indoor Systems 2	EVIE 4004	Environmental Interior Environ	UG/G	Broad exploration of a variety of contemporary and innovative building technologies and their integration with interior design. Focus on ecological, new building construction concepts and measure, delivered in the context of integrated design team processes and building systems innovation. Integration and coordination of interior architectural elements with active and passive building systems.	Sustainability Related
Families in Contemporary Canadian Society	FMLY 1000	Family Social Sciences	UG	This course provides an introduction to issues in contemporary families from an interdisciplinary perspective. Changing and diverse family forms and experiences are reviewed. An overview of issues pertinent to family well-being, including but not limited to immigration, poverty, homelessness, racism, addiction, disability, divorce, and physical and mental illness is provided.	Sustainability Related
Development, Conflict, and Displacement	FMLY 2012	Family Social Sciences	UG	The course is an introduction to development, conflict, and displacement as they affect individuals, families and communities. Specifically, this course examines the current phenomenon of induced displacement due to social conflicts, natural disasters, or uneven development in developing countries. Students will examine concepts and issues arising from induced displacement and explore community based responses to this problem.	Sustainability Related
Diversity and Families	FMLY 2500	Family Social Sciences	UG	Using the theoretical frameworks of intersectionality and social ecology, this class addresses how diversity in Canada is influenced by age, gender, ability, ethnicity, race, as well as family relationships, institutions and social policies. A focus on human rights and anti-racism education is emphasized.	Sustainability Related
Fundamentals of Health Promotion	FMLY 3750	Family Social Sciences	UG/G	This course provides an interdisciplinary life course perspective on theories and methods of health promotion. Current research, practices and policies in health promotion targeting individuals, families and communities will be critically reviewed with regard to issues of gender, culture, age, functional ability, socio-economic status, sexual orientation, and other determinants of health.	Sustainability Related
Introduction to the Development of Programs for Children and Families	FMLY 3780	Family Social Sciences	UG/G	An introduction to the theory and practice of program development with special emphasis on programs for children and families. The course will cover techniques for conducting need assessments, as well as the process of planning and implementing programs to address community need.	Sustainability Related
Family Relationships, Health and Well-being	FMLY 4602	Family Social Sciences	UG/G	This course provides an in-depth survey of the interaction between family relationship dynamics, and health and well-being across the life course period. The influence of family members on health-related behaviours is reviewed and preventive family-based interventions are evaluated.	Sustainability Related
A Social Justice Perspective on Indigenous Maternal and Child Health	FMLY 4606	Family Social Sciences	UG/G	This course examines the local and global challenges regarding the health care and health care needs of Indigenous peoples, with particular attention to childbearing women, new mothers, and young children. Interdisciplinary theories and methods applied to the study of Indigenous peoples are critically evaluated from Indigenous and social justice perspectives.	Sustainability Related
Food Safety Today and Tomorrow	FOOD 1000	Food Sciences	UG	A contemporary examination of the safety of the food supply - where, how and why problems may arise and what is and can be done to consistently achieve high quality,	Sustainability Related

				safe food. Controversial issues (residues, organic, biotechnology, irradiation) will be discussed in a balanced manner, and prospects for the future presented.	
Current Issues in Food and Human Nutrition	FOOD 4100	Food Science	UG/G	Integration of current issues in food and human nutritional sciences. Emphasis on ethics, equity, economics, and professional approaches to challenges in food and human nutritional sciences using case studies, team work, and scientific communication to specialists and the public.	Sustainability Related
Food Analysis 2	FOOD 4250	Food Sciences	UG/G	Advanced techniques employed in the physico-chemical analysis of food products as preparation for research, development, and inspection roles in government and in industry.	Sustainability Related
Water Management in Food Processing	FOOD 4260	Food Sciences	UG/G	The course is devoted to the management of water and wastewater in food processing. The roles of water in food processing, recycle and reuse opportunities, treatment options for water and wastewater are presented. The course also discusses water stewardship in relation to food processing, water and wastewater regulations and implication for HACCP and ISO.	Sustainability Related
Business and Society	GMGT 1010	General Management	UG	The course will provide overarching frameworks to examine the nature, role, and importance of business in society. Key internal operations of business organizations will be discussed (e.g. finance, marketing, operations), but the majority of the course examines the relationships that business firms must balance among key stakeholders in their external environment (i.e. government, owners, customers, communities, suppliers, future generations, etc.). Students will examine various institutional contexts (e.g. economic, political-legal, and socio-cultural) and critically think about relationships between business and society, mindfully considering alternative approaches to management. Special emphasis will be placed on contemporary social issues in business (e.g. sustainable development, corporate social responsibility).	Sustainability Focused
Managing for Sustainable Development	GMGT 7350	General Management	G	Topics in one of the areas of business administration including human resource management, industrial relations, organizational theory and behaviour, and business policy and strategic management.	Sustainability Focused
Research Seminar in Managing and Innovating for Sustainable Development	GMGT 7530	General Management	G	Topics in one of the areas of business administration including human resource management, industrial relations, organizational theory and behaviour, and business policy and strategic management.	Sustainability Focused
Introduction to Human Geography	GEOG 1280	Geography	UG	This course studies aspects of the human world: population, settlement and resources.	Sustainability Related
Introduction to Physical Geography	GEOG 1290	Geography	UG	This course studies aspects of our physical environment: climate, landforms, soils and vegetation.	Sustainability Related
Social Justice in the 21 st Century: Global Political Economy and Environmental Change	GEOG 1700	Geography	UG	Introduces students to political economy and cultural geography through the close analysis of contemporary world events, including but not limited to instances of violent conflict, environmental change, international negotiations, political processes and events, social movements, and policy developments. A multimedia approach will advance students' understanding of geopolitical events from political economy and spatial perspectives. Specific content of the course will change year-by-year in response to developments in national and world politics.	Sustainability Related
Natural Hazards	GEOG 2272	Geography	UG	Environmental hazards to human settlement and economy are examined with particular attention to meteorological, soil erosion, mass wasting, earthquake and volcanic phenomena.	Sustainability Related
Place, Populations and Mobility: Geographic Perspectives	GEOG 2330	Geography	UG	An examination of the factors controlling the number and distribution of human population. Variations in fertility, mortality and mobility will be analyzed and the causes and consequences reviewed.	Sustainability Related

Geography of Natural Resources	GEOG 2520	Geography	UG	An introduction to the basic concepts of the subject and the distribution of resources. Stress will be placed on Canadian resources and resource requirements but examples from other resource systems will also be used.	Sustainability Related
Weather and Climate	GEOG 2540	Geography	UG	This half-course examines the nature, controls, and observations of weather and the variation of climate in time and space.	Sustainability Related
Geography of Canada	GEOG 2570	Geography	UG	A regional study of Canada in which the major regions of Canada are studied with respect to geographical patterns of their physical environment, settlement, culture, economic activity, and land use.	Sustainability Related
Geography of the United States	GEOG 2580	Geography	UG	A regional study of the United States in which the major regions of the United States are studied with respect to geographical patterns of their physical environment, settlement, culture, economic activity, and land use.	Sustainability Related
Geography of Culture and Environment	GEOG 2630	Geography	UG	An introduction to the cultural geographic study of environment, focusing on the evolution of landscape, the creation of regions, and human relationships with nature.	Sustainability Related
Geography of Culture and Inequality	GEOG 2640	Geography	UG	An introduction to the cultural geographic study of human and place inequalities, focusing on behaviour in landscape, group differences, and human identities.	Sustainability Related
Introduction to Economic Geography	GEOG 2870	Geography	UG	This course introduces the field of economic geography, paying particular attention to the historical, environmental and spatial dimensions that shape the global economy and current economic order, including: wealth and poverty, production patterns and community chains, consumption and retail processes; natural resources; the state's role in economic governance; global labour; and the ways in which economic structures and processes shape gender and ethnicity.	Sustainability Related
Geography of Canadian Prairie Landscapes	GEOG 2900	Geography	UG	This course introduces students to the various geographical themes, concepts and processes within the context of the natural and anthropogenic development of the Canadian prairie region. It traces the evolution of the prairie landscape. It will focus on academic writing in the discipline.	Sustainability Related
Social Vulnerability to Natural Hazards	GEOG 3272	Geography	UG	This course examines differing social vulnerability to natural hazards, before, during and after disasters, including class, gender, age, health, language, and ethnicity.	Sustainability Related
Introduction to Microclimates and Micrometeorology	GEOG 3320	Geography	UG/G	This course introduces the concept of energy balance climatology and examines relationships among climate, microclimate, and environments of the Earth's surface and human-made environments. Studies include bioclimates and hydroclimates.	Sustainability Related
Introduction to Climate Change and Its Causes	GEOG 3390	Geography	UG/G	The primary objective of this course is to provide students with a general understanding of the physical and astronomical factors that drive global climate change. Focus will be given to current and future climate change in the context of observations and modeling.	Sustainability Related
Urban Geography	GEOG 3460	Geography	UG/G	The course studies the processes and trends of urbanization; the classification of cities; central-place theory; cities as systems; land-use patterns; social forces and factorial ecology; and urban transport problems.	Sustainability Related
Social Geography of the Environment	GEOG 3640	Geography	UG/G	This course provides an intermediate-level assessment of current geographical approaches to society and environment. Students are exposed to critical realist, social constructionist, Marxist, feminist and post-Colonial traditions as they are applied to environmental and social justice, globalization and public health.	Sustainability Related
Canada's Natural Environments and Landscapes	GEOG 3760	Geography	UG/G	This course will vary from year to year depending on the needs of students and the interests of instructors.	Sustainability Related
Environment and Tourism	GEOG 3770	Geography	UG/G	This course will vary from year to year depending on the needs of students and the interests of instructors.	Sustainability Related
Sustainable Manitoba	GEOG 3850	Geography	UG/G	This course approaches local sustainability issues from an interdisciplinary perspective. By looking at the ecological, social and economic aspects from a variety of discipline perspectives, a fuller understanding of sustainability is achieved. The broad range of perspectives is achieved through participation of guest speakers from other faculties and	Sustainability Focused

				outside of the university as well as excursion outside the classroom. Not to be held with ENVR 3850.	
Animal Geographies	GEOG 3860	Geography	UG/G	This course presents a variety of topics concerning the interactions between humans and animals, how humans influence and use animals, and the many roles animals play in human lives and environments. Animal Geographies lies at a meeting point between physical and human geography, where we must consider the blurring boundaries between what it means to be animal/human, and the implications of how animals are used and represented. A wide variety of perspectives, beliefs, and points of view will be explored.	Sustainability Related
Food Geographies	GEOG 3870	Geography	UG/G	This course provides a critical examination of the geographies of food at a variety of scales, from the body to the global. The course focuses on themes in three interconnected areas: 1) food production and the global food system from farm to plate including agribusiness and alternative food production and distribution models; 2) food consumption habits and beliefs and foodways as geographically contingent material culture; and 3) food (in) security and its relationship to health and wellbeing.	Sustainability Related
Geography and Wellness	GEOG 3890	Geography	UG/G	This course explores how human environment relations influence our mental, emotional, and physical wellbeing. Students will delve into current research in health and wellness geography and related disciplines, particularly focusing on: therapeutic landscapes, ecological loss and grief, sacred spaces, and environmental influences on mental wellbeing.	Sustainability Related
Biological Oceanography 1: Lower Trophic Levels	GEOG 3920	Geography	UG/G	In this course, students will gain a background on the study of biological oceanography. Biological oceanography is a very active and important field of study worldwide due to the spatial coverage and biological activity of the world's oceans. This course examines the interaction of marine organisms with other biological life, as well as with the physical environment.	Sustainability Related
Ecosystem Management	GEOG 4050	Geography	UG/G	This course will provide students with an understanding of the practical applications of ecological science, environmental policy, and resource management approaches in the large-scale planning of landscapes. The course will review ecological principles and trace the historical development of the ecosystem concept. Comparisons are made to other possible environmental management approaches. The synthesis of major elements and concepts will be reinforced through case studies on the Manitoba landscape, with an emphasis on practical learning by students through field seminars and group discussions.	Sustainability Related
Geographies of Health and Health Care	GEOG 4290	Geography	UG/G	This course provides an introduction to and critical examination of the geographies of health and healthcare. Topics include perceptions and determinations of health and health care; health care delivery, focusing on spatial patterns and inequities; and the relationship between environment and health, particularly impacts of environmental contamination.	Sustainability Related
Techniques in Climatology	GEOG 4560	Geography	UG/G	This course will examine field and analysis techniques that form the basis of climatological research, with particular emphasis on contemporary research in the areas of microclimatology and micrometeorology. Techniques for the examination of biophysical and biogeochemical processes driving the surface exchanges of heat, water and greenhouse gases form an important component of this course. The aim of the course is to prepare the student for independent research in applied climatology and meteorology, including the affiliated fields of ecology, hydrology, oceanography, as well as other fields of atmospheric science.	Sustainability Related
Geotourism: Geology and Culture	GEOG 4670	Geography	UG/G	Intensive study of selected geographic issues.	Sustainability Related

Applied Qualitative Research: Making a Difference	GEOG 4670/7010	Geography	UG/G	Intensive study of selected geographic issues.	Sustainability Related
Winnipeg's Urban Nature	GEOG 4670	Geography	UG/G	Intensive study of selected geographic issues.	Sustainability Related
Understanding Contemporary Environmentalism: Power and Discourse	GEOG 4750/7750	Geography	UG/G	This course will provide students with an advanced understanding of the relationships between nature and society by examining the rise of environmentalism through the past 50 years. Special attention will be paid to recent developments within the field of environmentalism and to theoretical work in the field of political ecology	Sustainability Related
Storms-Mesoscale	GEOG 4780/7780	Geography	UG/G	This course focuses on a range of storms and mesoscale phenomena in the summer or winter. These include thunderstorms, tornadoes, squall lines, lightning, low level jets, gust fronts, blizzards, freezing rain, orographic storm, and polar lows. The emphasis is on the physical mechanisms leading to these events and it also examines how they may change in our changing climate.	Sustainability Related
Climate and Society	GEOG 4800/7800	Geography	UG/G	This course takes an interdisciplinary approach to explore the social causes, consequences, and necessary responses to climate change including adaptation and mitigation. It identifies key concepts and analytic approaches that assist with identifying the social, economic, political, and cultural processes that both drive climate change and influence responses. In particular, it engages with human environment relationships and the role of diverse values, identities, knowledge systems and emotions, and the differential amounts of power held across social groups. Examples will be drawn from the global North and South and at multiple scales from the local to global.	Sustainability Focused
Ecosystem Management	GEOG 7010	Geography	G	Advanced study of a selected topic from any one of the department's fields of specialization.	Sustainability Related
Advanced Issues in Environmental Governance and Policy	GEOG 7010	Geography	G	Advanced study of a selected topic from any one of the department's fields of specialization.	Sustainability Related
Biogeography	GEOG 7500	Geography	G	The course will emphasize principles and approaches to understanding biogeography on a worldwide scale with specific examples from Canadian and Manitoban research. Topics discussed include the physical environment and biological interactions, effects of disturbance and climate change, the geography of biological diversity, evolution and extinction.	Sustainability Related
The Dynamic Earth	GEOL 1340	Geological Sciences	UG	An introduction to dynamics of the Earth's interior and surface that created the environment in which life evolved and that continue to change the world in which people now live.	Sustainability Related
Natural Disasters and Global Change	GEOL 1410	Geological Sciences	UG	Discover how and when natural disasters occur, and how to identify and recognize them. Explore the Earth processes that lead to natural disasters and global change.	Sustainability Related
Environmental Geology	GEOL 2390	Geological Sciences	UG	Examination of geological processes and material as they interact with human activities, environmental planning, and management.	Sustainability Related
Geotourism: Geology and Culture	GEOL 4270	Geological Sciences	UG/G	Advanced study in a selected subject in Earth sciences.	Sustainability Related
Mineral Exploration Techniques	GEOL 4380	Geological Sciences	UG/G	Examination of economic, political, social, and environmental considerations that affect exploration and mining activity.	Sustainability Related
Mineral Resource Development	GEOL 4380	Geological Sciences	UG/G	Examination of economic, political, social, and environmental considerations that affect exploration and mining activity.	Sustainability Related
Social Justice in the 21 st Century: Global Political Economy and Environmental Change	GPE 1700	Global Political Economy	UG	Introduces students to political economy and cultural geography through the close analysis of contemporary world events, including but not limited to instances of violent conflict, environmental change, international negotiations, political processes and events, social movements, and policy developments. A multimedia approach will advance students' understanding of geopolitical events from political economy and spatial	Sustainability Related

				perspectives. Specific content of the course will change year-by-year in response to developments in national and world politics.	
Perspectives on Global Political Economy	GPE 2700	Global Political Economy	UG	An interdisciplinary seminar exploring issues in political economy at the global level from the perspectives of Anthropology, History, Economics, Political Studies, and Sociology.	Sustainability Related
A Survey of Global Political Economy	GPE 3700	Global Political Economy	UG/G	Provides students with a systemic intellectual history of the field of Global Political Economy. The course delineates Global Political Economy as a distinctive scholarly tradition, discusses the separation of economics and politics, and surveys the tradition from classical political economy through historical materialism, development economics, imperialism, world systems theory, and more. Students will relate these approaches to contemporary issues in GPE such as economic and ecological crises, inequality, or corporate power.	Sustainability Related
Studies in Global Political Economy (Part A)	GPE 4700	Global Political Economy	UG/G	An advanced interdisciplinary seminar that will study the effects of institutions, structures, and dynamics operating in the current global political economy. Students, working in groups, will be expected to do case studies on selected local (or regional) political economies.	Sustainability Related
Health and Health Professions	HEAL 1600	Health Studies	UG	Students discuss the Inter-relationship between health, health determinants, and the impact that sciences, health-science, behavioural-social sciences, and technology, have on health care and the health professions. Participants will consider their own role as health care consumers.	Sustainability Related
Introduction to Social Epidemiology	HEAL 3000	Health Studies	UG/G	This course provides an overview of the basic concepts, principles and methods of social epidemiology and their applications for research and practice from a human ecology perspective. Applications to social determinants of health across the life course may include but are not limited to income and food security, early child development and others.	Sustainability Related
Integration of Health Determinants for Communities	HEAL 3600	Health Studies	UG/G	Students study, integrate and use community level determinants of population health in selected case or learning scenarios. These cases present a variety of issues in the design of health related services that are intended to benefit population health.	Sustainability Related
Integration of Health Determinants for Canada and the World	HEAL 4600	Health Studies	UG/G	Students use selected case or learning scenarios to study the determinants of population health that depend on decision making in governmental or international agencies. The case scenarios present a variety of issues in the governance and management of population health.	Sustainability Related
Inventing Canada	HIST 2282	History	UG	This course examines the "invention" and "reinvention" of Canada both before and after Confederation. It examines the process of invention from a range of different perspectives: political, cultural, economic, and social.	Sustainability Related
Modern Canada	HIST 2286	History	UG	This course addresses the history of Canada since the First World War with attention to social, political, economic, diplomatic and cultural topics such as: interwar and postwar life, struggles for equality, international and internal conflict, immigration, new technologies, nationalism, aboriginal affairs, the arts and Canada's role in the world.	Sustainability Related
History of Human Rights and Social Justice in the Modern World	HIST 2400	History	UG	Introductory course examining the emergence of the modern human rights era and social justice movements globally. Possible topics of study: human rights as global norm; non-Western conceptions of rights; workplace rights; indigenous rights; women's and gender rights.	Sustainability Related
Homemaking and Making Home: Gender, Labour and Domestic Skill, 1860-1920	HIST 3110	History	UG/G	An opportunity for the intensive study of selected topics or themes in history. The content varies, but may include work in social and cultural history or on specialized subjects. Consult the History Department and the Registration Guide for particulars. The course content may vary.	Sustainability Related
Global Feminisms	HIST 3990	History	UG/G	This course will provide a systematic introduction to advanced research seminars, paying particular attention to the development of: oral skills and public presentation of ideas and research; focused historiographical discussion and analysis; and advanced historical research and writing skills.	Sustainability Related

Energy, Environment, and Democracy in Canada	HIST 4000/7772	History	UG/G	The content of this course will vary. It is designed to provide students with specialized topics and themes in History. A description of the course is available in advance at the History Department Office. The course content may vary.	Sustainability Related
Food: Facts and Fallacies	HNSC 1200	Human Nutritional Sciences	UG	This course will present facts and fallacies about food from harvest to market forms. Emphasis will be placed on technological development, consumer concerns and factors affecting nutritional quality. Current issues related to food safety and nutritional trends will also be discussed.	Sustainability Related
Culture and Food Patterns	HNSC 3350	Human Nutritional Sciences	UG/G	A study of the cultural, sociological and psychological aspects of food patterns and behaviour.	Sustainability Related
Current Issues in Food and Human Nutrition	HNSC 4100	Human Nutritional Sciences	UG/G	Integration of current issues in food and human nutritional sciences. Emphasis on ethics, equity, economics, and professional approaches to challenges in food and human nutritional sciences using case studies, team work, and scientific communication to specialists and the public.	Sustainability Related
Community Nutrition Intervention	HNSC 4300	Human Nutritional Sciences	UG/G	Principles of planning and evaluating nutrition related interventions. Examples of community needs assessments, program planning strategies and types of program evaluation will be examined.	Sustainability Related
Sustainable Business	IDM 3010	Interdisciplinary Management	UG	This course presents sustainable business theory and best practice from a holistic and integrative perspective. A sustainable approach is presented for each of the key functions of business in a way that highlights how they fit with each other and with the social and ecological environment. The course focuses on how business can sustainably create positive social and ecological impact.	Sustainability Focused
Sustainability Economics	IDM 7090	Interdisciplinary Management	G	This is a graduate-level MBA course on a very specialized topic and is offered on an infrequent basis. Course content will be an examination of specialized topics or issues which may cross-pollinate with other business related areas. The overall aim of the course is to provide solid practical knowledge about a developing subject, to understand both implications and potential applications for organizations and their leadership today and in the future. Some topics could, for example, include Global Social Enterprise, Global Sales Distribution, Channel Management, Big Data and the Corporation, Infrastructure and Real Estate, and Coaching International Teams.	Sustainability Focused
Contemporary Themes in Business	IDM 7130	Interdisciplinary Management	G	This course exposes students to salient themes found in the modern business environment. Students will develop a broad appreciation for the challenges and opportunities presented by these contemporary themes (e.g. International and Emerging Markets: Sustainability: Entrepreneurship and Innovation).	Sustainability Focused
Theory Seminar 1 – Contemporary Issues in Design	IDES 7180	Interior Design	G	A theoretical exploration of contemporary design issues as they apply to Interior Design, supporting the work of design studio. Historical precedent in relation to human activity, sensory stimulus, technological and social change, ecological awareness, and aesthetic judgment forms the context for discussion and debate.	Sustainability Related
Working for a Living	LABR 1260	Labour Studies	UG	An introduction to the study of working lives in the contemporary world and the global transformation that has made working for wages central to human existence.	Sustainability Related
Labour Unions and Workers' Rights in Canada	LABR 1290	Labour Studies	UG	An introduction to the development of the contemporary working-class movement in Canada and to workplace issues today.	Sustainability Related
The Political Economy of Labour	LABR 2100	Labour Studies	UG	This course examines the dynamics of work organization, the production and reproduction of labour power, labour markets and class conflict in capitalist societies, with attention to contemporary Canada.	Sustainability Related
Workers, Employers and the State	LABR 2300	Labour Studies	UG	This course examines the social, economic and political contexts of work and the relations, rules and structures that shape the interactions between workers, employers and the state. Topics include workers' and management rights, the rights, obligations and functions of unions, the legal contexts of labour/management relations, and initiatives for increasing equity.	Sustainability Related

Labour Law	LABR 3010	Labour Studies	UG/G	An introduction to legislation and interpretation, legal procedures, and quasi-judicial boards as they concern the organization of trade unions, collective bargaining, settlement of disputes, labour standards, workers' compensation, unemployment insurance and human rights.	Sustainability Related
Issues in Occupational Health and Safety and Workers' Compensation	LABR 3050	Labour Studies	UG/G	This course will explore historical, legal and political issues surrounding health and safety in Canadian workplaces with an emphasis on Manitoba. It will critically examine both the Workers' Compensation and the Workplace Health and Safety systems as they currently exist and review the role of workers, employers, unions and government in these processes. It will investigate various challenges and emerging issues in health and safety including but not limited to industrial disease, gender concerns, precarious employment and globalization.	Sustainability Related
Ecological Crisis, Work and Capitalism Today	LABR 3110	Labour Studies	UG/G	This course will vary from year to year depending on the needs of students and the interests of the instructor. The course content may vary. Students can earn multiple credits for this course only when the topic subtitle is different.	Sustainability Related
Employment Legislation and the Protection of Workers	LABR 3130	Labour Studies	UG/G	An examination of the legal rights and obligations of workers and employers, and the enforcement mechanisms for the non-unionized workplace, over the course of the employment relationship from hiring through to termination or retirement. Special emphasis will be placed on statutory and common law, personal employment contracts, wrongful and constructive dismissal, human rights legislation and jurisprudence.	Sustainability Related
Human Rights Law	LAW 3018	Law	UG/G	Critical and constructive study, at an advanced level, of a significant major subject or set of topics in Human Rights Law.	Sustainability Related
Gender and the Law	LAW 3070	Law	UG/G	An exploration of ideas about gender differentiation in law, the legal system, legal education and the legal profession. It will offer an introduction to the feminist critique of law and feminist theories about sexual equality and discrimination.	Sustainability Related
Dispute Resolution	LAW 3170	Law	UG/G	This course offers a detailed exploration of the theory and practice of dispute resolution focusing on the various approaches, private and court-connected, currently used to resolve conflict. In critically examining selected alternative dispute resolution mechanisms, the course exposes students to issues such as rights-based and interest-based dispute resolution, power, gender and culture in ADR processes and the functions, and skills required of, third party interveners.	Sustainability Related
Criminal Justice, Family Law and Indigeneity	LAW 3272	Law	UG	This course is meant to provide a comprehensive treatment of the social realities and issues faced by Indigenous peoples in the Canadian criminal justice system as well as the Child Protection System. A large number of topics will be covered with a view towards exploring the problems faced by Indigenous peoples in the Justice System, the search for positive solutions to those problems, and problems/issues that have been identified with those solutions.	Sustainability Related
Employment Law	LAW 3330	Law	UG/G	A detailed study of employment law including employment principles, constructive and wrongful dismissal, just cause, human rights and remedies.	Sustainability Related
Environment Law	LAW 3600	Law	UG/G	The balance between technical development and the life-support capacity of the environment. The acquisition and nature of private rights in natural resources and their control by legislation and common law. Remedies for environmental degradation. Constitutional and international legal issues.	Sustainability Related
Race, Racism and the Law	LAW 3980	Law	UG/G	Critical and constructive study, at an advanced level, of a significant major subject or set of topics.	Sustainability Related
Corporate, Social, and Environmental Responsibility	LEAD 3030	Leadership	UG/G	This course examines the responsibilities of business that accompany maximizing shareholder wealth. This includes balancing the needs of a variety of stakeholders (including owners, employees, customers, suppliers, competitors, neighbours, future generations) among a variety of forms of well-being (e.g. financial, ecological, environmental, social, spiritual, physical). Students will learn theory and best practices.	Sustainability Related

				Students are encouraged to take this course in the final two years of their program of studies at the I.H. Asper School of Business.	
Indigenous Feminisms	INDG 2630	Indigenous Studies	UG	With reference to scholarship, activism, and literary, narrative, and/or creative works, this course critically engages differences and shared priorities across Indigenous feminisms past and present.	Sustainability Related
Exploring Indigenous Economic Perspectives	NATV 3120	Indigenous Studies	UG/G	Explore the impact of legal, constitutional and governance issues on the internal and external operating environment affecting Indigenous economic development. Current strategies for successful partnerships between industry and Indigenous peoples will also be examined.	Sustainability Related
Indigenous Peoples and Racism in Canada	NATV 3170	Indigenous Studies	UG/G	This course will trace the historical and colonial roots of racism Indigenous Peoples experienced in Canadian history as well as examine its practices in contemporary society and culture. Concepts such as systemic racism, cultural difference and anti-racist education may be explored. Class format will include readings, seminar discussions, some films and lectures. Critical reading and analysis is expected.	Sustainability Related
Gender and Indigenous Societies	INDG 3380	Indigenous Studies	UG/G	An examination of the theoretical issues that surround the cultural construction of Indigenous gender leading into detailed ethnographic and historical case studies.	Sustainability Related
Issues in Colonization	INDG 4300	Indigenous Studies	UG/G	The content of this course will vary from year to year. Contact the Department for a course description. As the course content will vary from year to year, students may take this course more than once for credit.	Sustainability Related
Energy Resources Management and Policy	NRI 7130	Natural Resource Management	G	This course covers global energy issues, objectives, strategies, and policies, and the environmental impacts of alternative energy sources; Canadian energy issues, objectives, strategies, and policies. The course stresses the need for a sound understanding of energy issues of fundamental importance, ability to assess alternatives, appreciation of policy strategies and instruments, and the ability to formulate an energy policy for a region.	Sustainability Related
Sustainability, Economics, and Natural Resources	NRI 7182	Natural Resource Management	G	Economic aspects of sustainability are a critical component of sustainable development. The relationship between environment, economy, and the human dimensions of natural resources comprise the primary focus of the course. Specific topics include environmental/ecological economics, externalities, project assessment, benefit cost analysis, the economics of renewable and non-renewable resource management and economic aspects of globalization.	Sustainability Focused
Human Dimensions of Natural Resources and Environmental Management	NRI 7222	Natural Resource Management	G	The human dimensions of Natural Resources and Environmental Management will be considered through the following thematic units: definitions, history, and paradigms of management; intersection of science with politics, actors, groups and participatory processes; Traditional Ecological Knowledge (TEK), communications and environmental perception; institutions, common theory and adaptive co-management.	Sustainability Related
Ecological Dimensions of Resource and Environmental Management	NRI 7232	Natural Resource Management	G	Current concepts and theories in landscape ecology, plant and animal ecology, life-history strategies, food webs, and population and community ecology are discussed as they relate to management. Common themes throughout the course include the importance of scale, the influence of science on management, adaptive management, and critical thinking.	Sustainability Related
Environmental Management Practice	NRI 7252	Natural Resource Management	G	Environmental Management systems (e.g. 14001 and Natural step), best management practices and project management. Tools: Awareness (Environmental Policy, Environmental Impacts, Risk Assessment, Life Cycle Assessment), Action (Objectives, Targets, Risk Reduction, Indicators, Monitoring, Activities), Advance (Sustainability Report, Triple Bottom Line, Environmental Audit). Additional information on the program may be found on the NRI website: www.umanitoba.ca/institutes/natural_resources/	Sustainability Related
Environmental Risk and Hazards	NRI 7320	Natural Resource Management	G	Environmental risk and hazards are viewed in terms of complex processes of natural systems and social formation. Analysis of processes and events is assisted by theoretical formulation, development of models and examination of site- or type-specific	Sustainability Related

				empirical cases. Additional information on the program may be found on the NRI website: www.umanitoba.ca/institutes/natural_resources/	
Project Management in Natural Resources and Environmental Management	NRI 7380	Natural Resource Management	G	This pass/fail course will provide students with a grounding in the knowledge and skills required to undertake a project within a professional workplace. The core objectives of this course are to encourage critical thinking about project management and develop the skills necessary to formulate, undertake and evaluate a project in the field of NREM.	Sustainability Related
Qualitative Field Methods for Community-based Resource and Environmental Management	NRI 7360	Natural Resource Management	G	The purpose of this course is to provide students with the knowledge and skills necessary to undertake qualitative research relevant to CBRM. The course will be offered in a studio format with an emphasis on student participation in a research team and the practical application of data collection procedures in field setting. Additional information on the program may be found on the NRI website: www.umanitoba.ca/institutes/natural_resources/	Sustainability Related
Foundations of Health and Well-being	OT 6122	Occupational Therapy	G	This course explores foundational knowledge in topics essential for understanding the concepts of and influences on health and well-being. Students engage in theory based and practical activities to understand models of disability, concepts of health, social determinants of health, cultural competence and safety, power and privilege. Course evaluated on a pass/fail basis.	Sustainability Related
The Environment and Occupational Performance	OT 6310	Occupational Therapy	G	An examination of physical, social, cultural and institutional aspects of the environment and their relationship to occupational performance throughout the life span. Students will begin to identify the environment in terms of enablers and obstacles to function for individuals with variable capacities.	Sustainability Related
Interpersonal Communication, Problem-Solving, and Trust-Building	PEAC 7010	Peace and Conflict Studies	G	Examines the role of language and communication in conflict and conflict resolution. These theoretical and practice perspectives are fundamental to the field of conflict analysis and resolution/peace studies. The role of power, gender, and culture in communication and conflict are reviewed. Theories and practical skills for successful communication, collaborative problem-solving, and trust-building are explored. This class is relevant for addressing conflicts within diverse settings.	Sustainability Related
International Conflict Resolution and Peace-building	PEAC 7030	Peace and Conflict Studies	G	Examines international conflict resolution and post-accord peace-building. Theories regarding the causes of international conflict are reviewed. Approaches for just and enduring resolution to international conflicts, building peace, and the promotion of a global civil society are explored.	Sustainability Related
Intercultural Conflict Resolution and Peace-Building	PEAC 7050	Peace and Conflict Studies	G	Examines the role of socially constructed identities and meaning in intergroup conflicts in a variety of contexts. Culture is broadly conceived to encompass a variety of identities, including differences along racial, ethnic, religious, gender, and class lines. Various models for resolution are reviewed. The nature of and ethics of intervention in cultures other than one's own are explored.	Sustainability Related
Colonialism, Postcolonialism and Neocolonialism	PEAC 7060/7300	Peace and Conflict Studies	G	The topics addressed in this course will vary depending on faculty expertise and student need. Topics could include but will not be restricted to: "Gender and Conflict;" "Storytelling: Identity, Power and Transformation;" "Ethnic Conflict Analysis and Resolution;" "Children and War;" "Peace Education;" "Transformational Conflict Resolution;" "Role of Religion in Conflict and Peace."	Sustainability Related
International Human Rights and Human Security	PEAC 7110	Peace and Conflict Studies	G	This course examines the shift in focus from state security to people. Human security is a bridge between the inter-related fields of development, human rights and conflict resolution. The course explores how these efforts at exploring the human condition can best be understood and applied	Sustainability Related
Peacebuilding and Social Justice	PEAC 7120	Peace and Conflict Studies	G	This course examines the role of peacebuilding in short term crisis intervention and longer term conflict transformation processes. Social justice is addressed at the systems level as it impacts the achievement of sustainable reconciliation. Crisis management in conflict settings, the root causes of conflict and its prevention are explored.	Sustainability Focused

Ethnopolitical Conflict and Peacebuilding	PEAC 7300	Peace and Conflict Studies	G	Examines the impact of international war, civil war and genocide on children. Today's children are tomorrow's world citizens, and their events will shape the future in unforeseeable ways. Young people are socio-economic and political agents, expressive through violence, peace work and other creative forms.	Sustainability Related
Ethics and the Environment	PHIL 2750	Philosophy	UG	An examination of some important ethical issues connected with environmental pollution and resource depletion. Examples to be covered include: the ideal of liberty and environmental limits; scarcity and the ideal of justice; growth vs. steady-state economics; animal rights, and survival ethics vs. welfare ethics.	Sustainability Related
Business Ethics	PHIL 2830	Philosophy	UG	The course will explore the application of ethical theory to business. Topics to be discussed will normally include: theories of justice, corporate responsibility, the ethics of advertising, consumer and environmental protection, and preferential hiring.	Sustainability Related
Weed Management	PLNT 0770	Plant Science	UG	General principles of weed management and pesticide use safety as they relate to weed control. Topics will include weed biology and identification, economic importance, principles of chemical, cultural, mechanical and biological weed management, introduction to herbicides including modes of action and factors influencing their use, selectivity, risks for development of herbicide-resistant weeds and how to mitigate this risk.	Sustainability Related
Urban Agriculture	PLNT 1000	Plant Science	UG	Urban environments and their importance for food production, increasing biodiversity, and reducing pollution are presented. Topics include principles of vegetable, fruit and herb production, landscape plants, and utilization of natural systems for composting, water management and reduced pesticide use. Benefits to environment, community development, and human health are discussed.	Sustainability Related
Plant Disease Control	PLNT 4270	Plant Science	UG/G	Diseases attacking field crops and horticultural plants: recognition of symptoms, methods of prevention, alleviation, and control.	Sustainability Related
Grassland Agriculture: Plant, Animal and Environment	PLNT 4410	Plant Science	UG/G	Inter-relationships between the biological components of grassland agriculture as they relate to forage production on the Canadian Prairies. Topics include utilization by wild and domestic animals, plant community relationships and role of forages in multiple land use planning.	Sustainability Related
Politics and the Environment	POLS 3140	Political Studies	UG/G	The content of this course will vary. Contact the department for a course description. The course content may vary. Students can earn multiple credits for this course only when the topic subtitle is different.	Sustainability Related
International Political Economy	POLS 3250	Political Studies	UG/G	A survey of the relationship between political authority and the production and distribution of global wealth. Emphasis is placed on the historical development of international political economy, its fundamentals, as well as major theoretical perspectives.	Sustainability Related
The Politics of Wellbeing	POLS 4310	Political Studies	UG/G	Topics may include, but are not limited to: advanced history of political theory, advanced contemporary political theory, political theory and the family, liberalism and critics, toleration, political theory and gender, and conservative political theory. The course content may vary. Students can earn multiple credits for this course only when the topic subtitle is different	Sustainability Related
Community Dentistry Externship, Part A	PDSO 4422	Preventive Dental Science	UG/G	The clinical portion of the program is centered in community outreach clinics in the City of Winnipeg. The students spend time at a pediatric community clinic, a low income community clinic, and at geriatric clinic. The clinics serve the elderly, children, Indigenous, or patients from low income families. The didactic portion of the program focuses mainly on geriatric dentistry.	Sustainability Related
The Psychology of Social Change	PSYC 4540	Psychology	UG/G	Course content may vary from year to year, but in general it will entail either some specific topic of prominent interest in psychology or a psychological analysis of some problem of current public interest. The course content may vary. Students can earn multiple credits for this course only when the topic subtitle is different.	Sustainability Related

Ethics and Professional Issues in Clinical Psychology	PSYC 7520	Psychology	G	Study of professional issues in clinical psychology. Historical development and present status of clinical psychology; what defines a profession; ethics codes, standards of practice, and legal requirements; training, internships, and accreditation; professional organizations, registration, and advocacy; employment in public and private sectors.	Sustainability Related
Religion and Social Issues	RLGN 2590	Religion	UG	The course examines selected ethical-social issues such as abortion, euthanasia, new genetic and reproductive technologies, and environmental and ecological issues, with reference to one or more of the world's religious traditions.	Sustainability Related
Social Justice, Diversity and Human Rights	SWRK 1220	Social Work	UG	This course examines social work approaches to understanding social justice and human rights in both local and global contexts with a focus on diverse communities and practice settings. Emphasis is placed on how social workers can mitigate injustice and advance human rights at micro, mezzo, and macro levels of practice.	Sustainability Related
Community Health and Well-Being: Imagination for Social Work Practice	SWRK 1230	Social Work	UG	This course examines information, perspectives, and competencies needed to integrate social work practice with promoting community health and well-being in public health and healthcare.	Sustainability Related
Anti-racist Social Work Practice	SWRK 2000	Social Work	UG	This course introduces students to the knowledge, theories, and skills necessary for social work practice from anti-racist perspectives. The course involves students in an examination of various frameworks required for anti-racist social work practice.	Sustainability Related
Community Development and Social Work	SWRK 2020	Social Work	UG	This course provides a critical examination of social work practice in the context of community development. The course integrates theory and policy with community development methods of social work practice at micro, meso and macro levels.	Sustainability Related
Emergence of the Canadian Social Welfare State	SWRK 2110	Social Work	UG	An examination of the emergence of the Canadian welfare state from its various colonial inheritances to the Canada Assistance Plan. Social, political, economic, religious, geographical, demographic and cataclysmic factors influencing the development of the welfare state are examined and analyzed.	Sustainability Related
Feminist Perspectives on Social Work Practices & Social Welfare Policy	SWRK 3160	Social Work	UG/G	An analysis of social work practice and welfare policy from a feminist perspective. Course emphasizes the integration of social work intervention with policy in the social welfare context and overlays concepts such as empowerment, ecological practice, oppression, and practice in context of cultural diversity.	Sustainability Related
Homelessness and the Housing Continuum: Ethics of Caring and Community Development	SWRK 4262	Social Work	UG	This course critically examines the dimensions and issues of individual and community wellbeing connected with home, homelessness and housing in Canada. Introduction to public and social policy analysis of historical, structural and systemic causes of homelessness. Focusing on social work practice, with an emphasis on the critical ethics of care and capabilities framework when working with individuals without permanent, safe and affordable housing. Depending on the instructor, this course may have a field trip.	Sustainability Related
Poverty and Inequality: Policy and Social Work Practice	SWRK 4298	Social Work	UG	This course is an in-depth exploration of poverty and economic inequality in Canada – their extent and characteristics, underlying causes, and differential effects on various segments of the Canadian population. The role of social work and social welfare policy in dealing with poverty and economic inequality will be analyzed.	Sustainability Related
Indigeneity, Power, Privilege, and Social Work	SWRK 7750	Social Work	G	This course will examine identity development influenced by gender, ethnicity, Indigeneity, internalized oppression, aboriginalism, internalized domination, whiteness, white privilege, racism, and in relation to social policies and social work practice with individuals, families, communities, and nations.	Sustainability Related
Social Challenges and Indigenous Helping Practices	SWRK 7770	Social Work	G	This course will teach students how Indigenous Elders, traditional teachers and /or medicine people identify, interpret and meet current social challenges. The course looks at how positive identities and relationships are fostered through traditional Indigenous helping practices and how they currently inform social work.	Sustainability Related
Social Work, Social Challenges, and Indigenous Peoples	SWRK 7780	Social Work	G	This course will focus on Indigenous knowledges shared through group participation in Indigenous helping practices. It looks at how these practices could be supported by social workers in communities and organizations for people facing social challenges.	Sustainability Related

Social Work Past and Present: Trends, Institutions and Practices	SWRK 8100	Social Work	G	Development of Social Work in Canada, with international comparisons, through examination of social processes and intellectual trends shaping the profession, such as colonization, Indigenous issues, feminism, neoliberalism and globalization, and highlighting of practices, methods and models.	Sustainability Related
Sociology of Health and Illness	SOC 2490	Sociology	UG	A general introduction to health sociology. The course examines health and illness as social concepts by exploring the personal and structural determinants of health status, and everyday health care practices in which people engage to maintain their health and to manage illness.	Sustainability Related
Ecological Crisis, Work and Capitalism Today	SOC 3460	Sociology	UG/G	This course will apply a sociological perspective to a critical and theoretically informed study of the social structures influencing personal and population health, including intersections of class, gender, ethnicity, and aging as sources of health inequities.	Sustainability Related
Women, Crime and Social Justice	SCO 3790	Sociology	UG/G	The course examines gender differences in crime, theories of women's crime and the treatment of women offenders and victims by the criminal justice system.	Sustainability Related
Ecology and Society	SOC 3838	Sociology	UG/G	Examines changing patterns of social organizations of civilizations, the resultant social constructions of the human/nature interface, the human social contribution to the global ecological crisis, and possible strategies to create sustainable societies. Consideration of topics such as population, consumption, capitalism, and agricultural practices.	Sustainability Focused
Power and Inequality in Comparative Perspective	SOC 3890	Sociology	UG/G	Engaging in a cross-temporal and cross-national investigation, this course critically surveys classical and contemporary debates around the inevitability of social inequality, and explores the ways that inequalities have been reproduced and rationalized, or attenuated and challenged, throughout human history. Key facets and indicators of inequality (such as poverty, homelessness, social exclusion and the distribution of income and wealth) and their relation to central axes of social inequality (class, gender, race/ethnicity and age) are considered. Put simply, this course is concerned with 'who gets what and why?'	Sustainability Related
Soil and Water Management	SOIL 0620	Soil Science	UG	(Lab required) Soil, water and crop management techniques and considerations for: weather and climate risk; variability of soil properties and capability; saline, sodic and acidic soils; soil erosion risk; trace element toxicity; maintenance of soil organic matter.	Sustainability Related
Pesticides: Environment, Economics and Ethics	SOIL 3520	Soil Science	UG/G	A comprehensive examination of the benefits and risks of pesticide use. Topics include: Characteristics of pesticide products and formulations used in Western Canada; History, practice, successes and failures in the use of pesticides in agriculture; Pesticide use for protecting human health; Pesticide fate processes in air, soil and aquatic environments; Economical and environmental impact of pesticide application drift; Atmospheric pesticide contamination; Pesticide surface and groundwater contamination; Pesticide toxicity to organisms, including humans; Pesticide residues in food; Pesticide regulations; Pesticide risk indicators; Alternatives to pesticides.	Sustainability Related
Soils and Landscapes in Our Environment	SOIL 3600	Soil Science	UG/G	Discover why soil is an essential resource. Explore the roles of soils and landscapes within natural and agricultural ecosystems by learning the fundamental biological, chemical and physical properties and processes; soil and landscape classification and evaluation	Sustainability Related
Soil Ecology	SOIL 4400	Soil Science	UG/G	Explore the application of soil biology to diversity in agro ecosystems, response of soil organisms to management, mediation of important environmental issues, and promotion of human health. Appreciate the vast array of soil organisms and their functions in soil ecosystems, understand cycling of nutrients by soil organisms, and discover quantitative methodology in determining soil biochemical processes. The laboratory provides hands-on experience in observing, quantifying and isolating soil organisms and the biochemical processes they conduct.	Sustainability Related

Remediation of Contaminated Land	SOIL 4500	Soil Science	UG/G	Physical, chemical and biological approaches to remediation of land including: nature of contaminants, procedures for assessing the extent of the impact, consequences to the environment, approaches to remediation and case studies of contaminant remediation.	Sustainability Related
Soil and Water Management	SOIL 4510	Soil Science	UG/G	Topics include: capability of land for agriculture; storage, movement and use of water; saline and alkaline soils; soil conservation including erosion; sustainability of soil organic matter; effect and fate of soil amendments.	Sustainability Related
Introduction to Women's and Gender Studies in the Humanities	WOMN 1500	Women's and Gender Studies	UG	Examination of the central concerns of women and gender in the Humanities. A focus on representation, voice, knowledge, and subjectivity.	Sustainability Related
Introduction to Women's and Gender Studies in the Social Sciences	WOMN 1600	Women's and Gender Studies	UG	Examination of women's historical and contemporary roles in the economy, family, and society from the perspective of the social sciences. Introduction of feminist theories, with emphasis on the role of gender. Topics covered focus on the social conditions of women's lives: work, health, violence and organizing for change.	Sustainability Related
Feminist Thought	WOMN 2000	Women's and Gender Studies	UG	Survey of the varieties of historical and contemporary feminist ideas.	Sustainability Related
Race, Class and Sexuality	WOMN 2500	Women's and Gender Studies	UG	An exploration of the various ways race, class, and sexual orientation impact on women's lives and identities. Focus is on how racism, classism and heterosexism are produced and reproduced both within and outside of the feminist movement.	Sustainability Related
Sex, Gender, Space and Place	WOMN 2600	Women's and Gender Studies	UG	An examination of how we use places and spaces in our everyday lives to produce and maintain social differences of gender, sexuality, race, class, and citizenship. Drawing on perspectives from feminist geography and history, this course explores ideas about places (for example, homes) and spaces (for example, regions), as well as historical claims that women belong in place but men should control space.	Sustainability Related
Sex Work in Contemporary Canadian Culture	WOMN 3100	Women's and Gender Studies	UG/G	This course examines cultural linkages between femininity and prostitution in the context of contemporary Canadian culture. The course begins by considering historical cultural and feminist discourses about sex work and sex workers. Keeping in mind that the actual exchange of sexual services for money is currently legal in Canada, course discussions will interrogate enduring representations of sex work/ers. The course also examines some prostitution-related legislation, ideological and "real world" linkages between violence and prostitution, and ongoing activisms that reinforce or resist negative representations and the violent realities of sex work/ers in Canada today.	Sustainability Related
Gender, Race and Environmental Justice	WOMN 3130	Women's and Gender Studies	UG/G	Relying on interdisciplinary feminist and Indigenous perspectives, this course examines how historical and present-day environmental issues do not exist "out there," but profoundly shape our bodies and lives, and in turn are shaped by social structures and inequities. It includes study of relationships between human and non-human beings in different places and times, and invites students to consider both the interconnection between social and environmental struggles and the misperception that humans and environments somehow exist in isolation from one another. It also provides room to study, envision and enact alternative planetary relationships.	Sustainability Related