



University of Winnipeg Sustainability Course Index

This page was last updated April, 2019. Please check the University of Winnipeg's [academic calendar](#) to determine which courses are currently being offered.

ANTHROPOLOGY		
Course # and Title	Description	Sustainability Designation
ANTH-1003 Introductory Biological Anthropology and Archaeology	Components on adaptive strategies, cultural ecology, traditional ecological knowledge and carrying capacity, especially among foraging, horticultural and agricultural societies (past and present).	R
ANTH-2103 Ethnography of North American First Peoples	Components on adaptive strategies, cultural ecology, traditional ecological knowledge among North American Indigenous peoples.	R
ANTH-2160 Indigenous People and the Industrial State	Components on adaptive strategies, cultural ecology, traditional ecological knowledge among Indigenous around the world highlights the impact of Industrial States on the lifeways of Indigenous peoples.	R
ANTH-2202 Archaeology of North America	Components on cultural ecology, traditional ecological knowledge among North American Indigenous people as revealed through archaeological evidence.	R

<p>ANTH-2211 Rise of Old World Civilization</p>	<p>Components on the origins of agriculture in North, Central and South America and the impact this had on the environment and the development of ancient states.</p>	<p>R</p>
<p>ANTH-3113/4113 Indigenous Peoples of Central Canada</p>	<p>Focus on traditional ecological knowledge of Cree and Ojibwe peoples in Manitoba, Ontario and Quebec.</p>	<p>R</p>
<p>ANTH-3120/3522 Aboriginal Peoples of Arctic Canada</p>	<p>Focus on adaptive strategies, cultural ecology, traditional ecological knowledge among the Inuit.</p>	<p>R</p>
<p>ANTH-3126 (HIST-3515) Material Culture in the History of the Aboriginal Peoples of Canada</p>	<p>Components on how the technology of Indigenous peoples in Canada was ecologically adaptive.</p>	<p>R</p>
<p>3127 (HIST-3518) History of the Aboriginal Peoples of the Northern Plains</p>	<p>Components on cultural ecology, traditional ecological knowledge among North American Indigenous peoples.</p>	<p>R</p>
<p>ANTH-3132 (HIST 3532) History of the Iroquoian Peoples</p>	<p>Components on cultural ecology, traditional ecological knowledge among the Iroquoian peoples.</p>	<p>R</p>
<p>ANTH-3170 (IS-3012) Ethnoecology: A Research Approach</p>	<p>Underscores the traditional ecological knowledge systems of Indigenous and local communities by examining the interactions among these communities, their knowledge, and the local environments that have sustained over time.</p>	<p>R</p>

BIOLOGY

Course # and Title	Description	Sustainability Designation
BIO-1102 Biology and Human Concerns	Deals with the chemistry of life, cellular structure and function, genetics, natural ecosystems, impact of human populations and activities, food and water safety issues, consumer health awareness, global and Manitoban environmental concerns.	F
BIO-1116 Evolution, Ecology and Biodiversity	Touches on issues related to sustainability throughout; distinct sections on conservation and restoration ecology.	R
BIO-3476 Forest Policy and Management	Focuses on the principles and practices of sustainable forestry in Canada.	F
BIO-4474 Forest Health and Protection	Focuses on the effect of fire, insect, disease and abiotic disturbances on the sustainable management of commercial forests in Canada.	F
BUSINESS ADMINISTRATION		
Course # and Title	Description	Sustainability Designation
BUS-3302 Co-operative and Credit Union Accounting and Performance Measures	Examines the strategies that co-operative firms have adopted to measure social, cultural and environmental contributions to their communities and how these measurements assist co-operatives in developing sustainable business practices. There is a review of co-operative and credit union accounting and performance measurement for sustainable communities.	R

BUS-3510 Supply Chain Management	Sustainable supply chains. Topics include closed loop supply chains, reverse logistics, EPR and other environmental and social implications of supply chains	R
CHEMISTRY		
Course # and Title	Description	Sustainability Designation
CHEM-2801 Environmental Issues in Chemistry	Fundamentals of chemistry are applied to examine a selected range of topics in the environmental, consumer, and health-related areas, such as plastics and recycling, food chemistry, pesticides, drugs, detergents, global warming and/or acid rain.	F
CHEM-3601 Environmental Chemistry	Recent literature is used to discuss current issues in environmental chemistry, with an emphasis on long-range transport and global distribution of persistent, toxic and bioaccumulative contaminants.	R
CHEM-3611 Environmental Toxicology	Provides an understanding of how and why chemicals may damage humans and other organisms; toxicological modelling and environmental risk assessment are introduced.	R
CLASSICS		
Course # and Title	Description	Sustainability Designation
CLAS-3910/4910 Ancient Environments and Ecology	This course explores approaches, techniques, issues, and applications involved in the reconstruction of ancient environmental and ecological conditions and settings	F

ECONOMICS

Course # and Title	Description	Sustainability Designation
<p style="text-align: center;">ECON-2311 Economics of Natural Resource Extraction</p>	<p>Examines economic models of resource extraction and harvesting through time; renewable and non-renewable resources such as forestry, fisheries and fossil fuels are considered; an economic perspective of sustainability is introduced.</p>	<p>F</p>
<p style="text-align: center;">ECON-2315 Indigenous Economic Development</p>	<p>This course provides an overview on economic development issues in Indigenous communities and discusses issues of natural resource development, social enterprises, gaming in First Nations communities and urban reserves</p>	<p>R</p>
<p style="text-align: center;">ECON-2317 Environmental Economics</p>	<p>Examines the role of economics in decision-making about the environment.</p>	<p>F</p>
<p style="text-align: center;">ECON-2318 Energy Economics</p>	<p>Introduces students to the issues and policies pertaining to energy markets from an economic perspective; a case study for the demand for transportation energy will be used as a unifying theme throughout the course.</p>	<p>F</p>
<p style="text-align: center;">ECON-4203 Topics in Mathematical Economics</p>	<p>Some examples in class are related to sustainability; for instance, calculating the optimal catch rate for a fishery to get the economic benefit without depleting the resource, taking into account growth rate of the stock.</p>	<p>R</p>
<p style="text-align: center;">ECON-4317 Topics in Environmental and Natural Resource Economics</p>	<p>Topics such as the theory of environmental policy, international aspects of environmental problems, monitoring and enforcement of environmental regulations, and efficient versus sustainable utilization of natural resources are examined.</p>	<p>F</p>

EDUCATION		
Course # and Title	Description	Sustainability Designation
EDUCATION-4842 Early Years Curriculum, Instruction and Assessment: Social Studies	Introduces students to the instructional approaches and assessment techniques relevant to the teaching of Social Studies within the context of the Manitoba Education and Training curriculum framework for the early years; includes sustainability topics.	R
EDUCATION-4850 Middle Years Curriculum, instruction and Assessment: Social Studies	Introduces students to the instructional approaches and assessment techniques relevant to the teaching of Social Studies within the context of the Manitoba Education and Training curriculum framework for the middle years; includes sustainability topics.	R
EDUCATION-5001 Special Topics in Education: Field-Based Learning	Studies the principles, planning, and implementation of field-based learning resources. Place-based learning, the contextual model of teaching, organizing an educational field experience for museums, planetariums, zoos, nature centers, and natural environments, teachers and the law, school policies and procedures, and utilizing resources in industry and commerce.	F
ENVIRONMENTAL STUDIES AND SCIENCES		
Course # and Title	Description	Sustainability Designation
ENV-1600 Human-Environmental Interactions	Deals with a variety of topics which illustrate the complexity and diversity of environmental issues; the central theme is 'understanding natural processes in the environment' as a means of measuring human impact.	F

ENV-2502 Sociology of the Environment	Debates surrounding such concepts as sustainable development, deep ecology, environmental justice and global change are emphasized.	F
ENV-2521 Voluntary Simplicity	Considers the implications and applications of voluntary simplicity in addressing local and global issues, such as economic equity, environmental sustainability, community building, and quality of life.	R
ENV-2603 Environmental Sustainability: A Global Dilemma	Focuses on environmental factors relevant to understanding and implementing sustainable development; aims to teach students to understand fundamental ecological principles within the context of social values and technological constraints	F
ENV-2604 Environment and Health	Provides a scientific overview of selected chemical contamination issues, discusses relative risks of recognized and potential hazards, and assesses possible technical and regulatory solutions.	R
ENV-3025 Issues in Sustainable Cities	Addresses issues of sustainable urban development.	F
ENV-3035 Law and the Environment	Provides an introduction to Canadian environmental law, including common law and statutory regimes.	F
ENV- 3603 Winnipeg and the Environment: A Case Study Approach	Focuses on the particular problems facing the City of Winnipeg in its interaction with the environment.	F
ENV-3606 Business and the Environment	Examines practical examples of ways in which business operations have responded to environmental and sustainability challenges and opportunities.	F
ENV-3607 Forests and the Environment	Provides students with the fundamental knowledge of the interactions between human and forest ecosystems; concepts underlying forest sustainability and forest conservation in a changing world are developed.	F

ENV-3608 Forest Wildlife Management	Focuses on the management of wildlife populations in forested environments in Canada; examination of forest biodiversity including conservation strategies.	R
ENV-4450 Geographic Perspectives on Environment and Sustainability I	Considers geographic and environmental approaches to sustainable staples-based development, particularly as they apply to water, energy and mining.	F
ENV-4611 Environmental Impact Assessment	Explores the methodology of environmental impact assessment (EIA).	R
ENV-4615 Environmental Soil Science	Provides students with a comprehensive knowledge of environmental issues related to soil science emphasizing the significant role soil plays in sustaining environmental quality.	R
GEOGRAPHY		
Course # and Title	Description	Sustainability Designation
GEOG-1103 Introductory Human Geography II: Population, Place and Development	Focus on population change and migration, various forms of economic activity, urbanization, levels of development and the implications of changes in these theme areas will be emphasized for the environment.	R
GEOG-2204 Human Impact on the Environment	Studies the causes, effects, and controls of detrimental change to the natural environment resulting from human activity. Emphasis is given to issues pertaining to the alteration of ecosystems and the various types of water, air, and soil pollution	F
GEOG-2212 Natural Hazards	Examines the causes and characteristics of natural hazards. Emphasis is on the assessment of risk, the choice of adjustments, and differences between situations in developed and developing countries.	R

GEOG-2401 Agricultural Geography	Study of agriculture from the viewpoint of physical and cultural environments, systems of exploitation, regional analysis, and a survey of the world's major agricultural activities	R
GEOG-2408 Environmental Perception and Human Behaviour	Topics include perception of natural hazards, perception of natural resources and the management of natural resources; images of urban neighbourhoods, cities, metropolitan regions, provinces, countries, the world; mental maps; attitudes towards resource development and the implications for local, regional, and national planning	R
GEOG-2412 A Geographical Perspective on Tourism	Provides a broad overview of the world tourism industry that includes a geo-historical perspective on the origins, evolution, and growth of tourism; concepts of capacity and sustainable tourism are addressed.	R
GEOG-2414 The Urban Environment	Examines the structure and activities of cities and the resulting effects on the environment; approaches to developing more sustainable and environmentally sensitive cities are discussed.	F
GEO-3204 Climate Change and Variability	The causes and characteristics of regional and global climate change and variability will be examined, as will be the methods of reconstructing climate histories. Topics will include atmosphere teleconnections, global warming, and climate forecasting.	F
GEOG-3402 Urbanization in the Developing World	Explores the factors promoting urbanization in the developing world and discuss models of third world cities. Specific topics will include urban growth and management, urban services, squatter settlements, survival tactics of the urban poor, An Historic Context of Urbanization within Developing Nations , Urban Population Growth and Urban Environmental Matter	R
GEOG-3408 Water Resources	In predicting future Canadian needs for water, the relative merits of direct and indirect methods of forecasting are assessed.	R
GEOG-3411 Heritage Conservation and Tourism	Preservation, interpretation and management techniques and their relationship to the needs of the tourist industry will be discussed. Emphasis will be the problems of heritage resource development in North America, particularly Western Canada.	R

GEOG-3413 Urban Revitalization: Rebuilding of Decaying Cities	Focuses on urban decline and revitalization efforts; broad approaches to revitalization, revitalizing the commercial sector, attracting people back to the inner city, leadership and the role of partnerships, and planning for long term sustainability will be among the topics discussed.	R
GEOG-3512 The Human Geography of Northern Canada	Investigates contemporary issues in Canada's arctic and subarctic regions, focusing on the three territories The purpose of this course is to provide students insight into how changes in the political, social and economic landscapes of these places impact the human geography of northern Canada.	R
GEOG-3443/4443 Advanced Tourism and Recreation Geography	Provides an overview of the world tourism industry and the impacts of tourism on their host communities. Concepts of capacity and sustainable tourism are addressed.	R
GRADUATE STUDIES		
Course # and Title	Description	Sustainability Designation
Graduate Studies-7702 Human Security and Indigenous Knowledge	Seeks to bring together two frameworks, human security and traditional indigenous knowledge and cultures, to examine the practice of development.	R
Graduate Studies-GDP 7703 IS 4703 Indigenous Education in an Era of Globalization	Focuses on the struggle of Indigenous education programs and initiatives to satisfy both the demands of globalization and Indigenous perspectives on self-determination and education.	R
Graduate Studies-7704 Health and Sustainable Development	Examines the interactive relationship between health and sustainable development to address issues relevant to indigenous and other disadvantaged populations in Manitoba and throughout the world.	F

Graduate Studies-7706 Leadership and Human Resource Management	Looks at supply chains and leadership in resource-poor communities.	R
Graduate Studies-7707 Indigenous Economic Development	Considers how public policy may foster sustainable economic development among marginalized groups through more complete integration into market economies, as workers and entrepreneurs, or through alternative models that emphasize economic self-determination and self-governance through community economic development.	R
Graduate Studies-7708 Global Classroom: Integrated Approaches to Sustainable Development Practice	Provides students with the basic core competencies and practical skills required of a 'generalist' or 'integrative' development practitioner and serves as the foundation course for the Master's in Development Practice curriculum.	F
Graduate Studies-7709 Indigenous Thought and Worldviews: Sustainable Understandings	Helps students gain insights into the core concepts of sustainable development, global sustainability, earth stewardship, and self-determination through indigenous perspectives.	F
Graduate Studies-7711 Macroeconomic Policy and Sustainable Development	Considers how economic theory improves the understanding of issues facing developing communities and analyses the policy instruments for ensuring that economic development is more environmentally sustainable	F
Graduate Studies-7713 Business Planning in Indigenous and Marginalized Communities	Focuses on sustainable business practices, specifically in a context of marginalization; considers entrepreneurship and the distinctive financing, marketing, and management challenges of starting and operating a small business or social enterprise in indigenous and resource-poor settings.	R

Graduate Studies-7721 Theories and Methods of Program Planning and Evaluating	Examines theories and methods of program planning and evaluation in sustainable development, with particular focus on indigenous peoples; highlights methods that are participatory, community-based and relevant for and applicable to domestic and international indigenous communities rooted in their cultural perspective and relationship to ancestral land.	R
Graduate Studies-7750 Managing for Environmental Sustainability	Considers geographic and environmental approaches to sustainable staples-based development, particularly as they apply to water, energy and mining.	F
Graduate Studies-7305 Development Economics	Provides an overview of the current literature on the economic growth and development of developing countries; topics covered include economic growth, inequality, the role of geography, history, and institutions for sustainable growth.	R
Graduate Studies-7311 Natural Resource Economics	Reviews the normative foundations of natural economic resources, addressing concepts such as efficiency, intergenerational equity and sustainability.	R
Graduate Studies-7317 Environmental Economics	Examines the interaction amongst economic activities, regulatory policies, environmental damage and social welfare. Provides theoretical foundations for environmental economics and analyzes the regulation of polluting activities. It examines environmental policy, environmental problems in developing countries and current international environmental issues such as climate change	F
HISTORY		
Course # and Title	Description	Sustainability Designation
HIS-2120 Business History	Among other topics, this course discusses historical models of alternative ownership structures as ways of operating businesses in a more just and sustainable manner.	R

HIS-2121 Environmental History of the Americas	A survey of the environmental history of the Americas from the pre-Columbian civilizations. The course takes a hemispheric perspective to examine the many ways in which humans across the Americas have interacted with their natural environment, examining the impact of European colonization on the eco-systems. It talks about the effects of colonialization on natural environments	R
HIS-3007 Topics in History of Food	Investigates the historical significance of food production, consumption and development of a global industrial food system. Other topics discussed are, gender, ethnicity, (trans)nationalism, and identity; business, labour, and capitalism; the role of government; the environment.	R
HIS-3829 History of Modern Architecture and Design	Includes a unit on organicism. Architecture based on natural laws is explored as is how this attitude at the fin-de-siecle began a pan-western movement to preserve parkland, including city parks, such as Assiniboine Park in Winnipeg	R
HIS-4103 Colonization and the Age of Modernity in Latin America	Includes unit(s) addressing indigenous relationships to land and also indigenous versus state and commercial industrial forms of land and resource use.	R
INDIGENOUS STUDIES		
Course # and Title	Description	Sustainability Designation
IS-1016 introduction to Indigenous Studies: Art, Culture, and History	Indigenous history course that explores Indigenous epistemologies and ontologies. Also addresses collectivism vs. individualism and the influence of ecosystem on peoples' art, culture, and history.	R
IS-3010 Protecting Indigenous Knowledge Systems	Focuses on emerging issues for Indigenous peoples regarding the use and exploitation of their knowledge and biological resources.	R

IS-4023/7023 Indigenous Peoples, Globalization and Development	Taking indigenous peoples as actors, not victims, as its starting point, the class will then examine innovations in indigenous development practice that are culturally respectful, environmentally responsible and build a new sense of community.	R
IS-4024/7024 Biocultural Diversity Conservation: Issues for Indigenous Peoples	Addresses worldwide concerns regarding the loss of biological and cultural diversity; central premise of the course is the interrelationship between Indigenous people and their environment.	F
KINESIOLOGY		
Course # and Title	Description	Sustainability Designation
KIN-2104 Outdoor Recreation and Education	Focus on the inter-relationships of skills and knowledge in the areas of recreation, education and the environment. All content surrounding outdoor recreation education is about sustainability	R
KIN-2305 Issues in Health	Few classes on global and local issues regarding environmental health	R
MATHEMATICS		
Course # and Title	Description	Sustainability Designation

MATH-2701 Linear Optimization	Several case studies are given where mathematical tools of optimization are used to determine the most frugal use of resources; particularly, examples are given involving 1) farm planning 2) responsible forestry with replanting.	R
PHILOSOPHY		
Course # and Title	Description	Sustainability Designation
PHIL-2233 Environmental Ethics	A unit of the course focuses on understanding ecosystem sustainability and thinking about how it can be consistent with human economic activity; students challenge the notion that social and economic sustainability are separate values competing with ecosystem sustainability.	F
PHIL-2234 Philosophy of Nature	Involves the study of some of the more holistic "new frontiers" in biology (e.g. Epigenetics, The Theory of Organic Selection / The Baldwin Effect, Emergence Theory, Biosemiotics, etc.); environmental sustainability a secondary theme throughout.	R
POLITICAL SCIENCE		
Course # and Title	Description	Sustainability Designation
POL-1011 Introduction to Political Science	Includes discussion on environmental movements and political issues surrounding the environmental, social and economic aspects of sustainability.	R

POL-3450 Sustainability and Environmental Politics	Examines measures and implications of the concept of sustainability as it impinges on virtually every policy area in Canada.	F
RELIGION AND CULTURE		
Course # and Title	Description	Sustainability Designation
REL-2515 Ecology and Religion	Explores the relationship between the religious beliefs and the perceptions about nature in the context of Western, Eastern, and Indigenous Cultures.	R
Rhetoric, Writing and Communications		
Course # and Title	Description	Sustainability Designation
RHET-3321 Composing Our Winnipeg: Rhetoric of/and the City	Considers how our city has been written so far, and how its culture(s) and geography are a function of confrontations between language, cultures of poverty and power, and complex institutional decision-making.	R
RHET-3331 Writing Partnerships Practicum (Communicating Climate Change RHET-3331(3)-002)	Stresses the concepts of experiential education and of writing as social action; goals include understanding the intersections between writing and social justice initiatives.	R
SOCIOLOGY		

Course # and Title	Description	Sustainability Designation
SOC-3233 Green Justice	Focuses and analyzes environmental problems, community responses, and policy debates regarding green justice issues	F
URBAN & INNER-CITY STUDIES (UIS)		
Course # and Title	Description	Sustainability Designation
UIS-3330/4330 Solidarity and Social Economy in the City	Incorporates readings and discussions on; Voluntary Simplicity: the Middle Way to Sustainability, Sustainability and Sufficiency: Economic Development in a Buddhist Perspective, Globalization/Development/ International textile factories/Sustainability and People, Land and Sustainability: Community Gardens and the Social Dimension of Sustainable Development	R
WOMEN'S & GENDER STUDIES		
Course # and Title	Description	Sustainability Designation
WGS-3004 Women, Health and the Environment	Investigates how women, health and the environment intersect and explores some of the repercussions of particular environmental situations on women's physical, emotional, spiritual and psychological health.	R

