

MEMORANDUM

April 2, 2014

TO: The University of Winnipeg Senate

FROM: Academic Working Group on Sustainability

SUBJECT: Update on sustainability content inventory in curriculum

The Academic Working Group on Sustainability¹ has been tasked with determining a way of better capturing information about sustainability content in the University's teaching and research.

The immediate purpose of this exercise is to meet the reporting requirements of STARS² (Sustainability Tracking, Assessment and Reporting System). The exercise also creates a directory of courses with sustainability content students can easily access and provides an overview of the diversity of approaches to, and conceptions of, sustainability found throughout university departments.

In June of 2013, the Working Group provided a report to Senate that outlined a two phase approach to this effort:

Phase I: Adopt working definitions of 'sustainability in the curriculum' and of 'sustainability in research'. Complete an inventory of sustainability-focused and sustainability-related courses and of current sustainability research as defined in May 2013 memo (attached here for reference).

Phase II: Develop and clarify the "sustainable course delivery" and "skills and aptitudes required for a societal transition to sustainability" elements of definition of "Sustainability in the Curriculum" (attached here for reference).

The first phase of this process – the development of an inventory of sustainability-focused and sustainability-related courses - was undertaken over the 2013/2014 academic year. No major work was done on elements of the second proposed phase over this academic year.

After an initial review of the course calendar, individual departments were contacted and asked to identify courses that included sustainability content. To date, 39 out of 46 departments have responded

¹ Members during the 2013/2014 academic year: Devin Latimer (Chemistry) Don Metz (Education) Alan Diduck (Environmental Studies & Science), Royden Loewen (History) Michael Dudley (Library) Andrée Forest (UWSA) Alana Lajoie-O'Malley (Campus Sustainability Office) Teresa Senderewich (Campus Sustainability Office).

² STARS (<https://stars.aashe.org/>) is quickly emerging as the standard North-American campus sustainability benchmarking and reporting tool. It provides an external method of measuring the University's sustainability performance and a measure of transparency and accountability to our sustainability efforts. It also helps us understand how we are performing relative to other North American universities and colleges.

to this request, while it is hoped that the majority of the remaining departments will respond in the coming weeks. The inventory as it currently exists is included as an attachment here.

The Academic Working Group on Sustainability will reconvene in September 2014 to consider strategies for maintaining this inventory, to consider possible next steps related to the inventory, and to consider the issues assigned to the second phase of this exercise.

MEMORANDUM

May 23, 2013

TO: The University of Winnipeg Senate

FROM: Academic Working Group on Sustainability

SUBJECT: Sustainability content inventory in curriculum and research

The Academic Working Group on Sustainability¹ has been tasked with determining a way of better capturing information about sustainability content in the University's teaching and research. The immediate purpose of this exercise is to meet the reporting requirements of STARS² (Sustainability Tracking, Assessment and Reporting System); however, the Working Group has identified the need to increase the scope of UWinnipeg's exercise beyond STARS requirements.

The Working Group is currently proposing a two phase process to meet its mandate, and is presenting it here for information and discussion at Senate:

Phase I: Adopt the proposed definitions of 'sustainability in the curriculum' and of 'sustainability in research'. Complete an inventory of sustainability-focused and sustainability-related courses and of current sustainability research as defined below.

In this phase, the focus will be on collecting information about the content of courses (i.e. the subject matter being taught/ researched). Other issues related to 'sustainability in the curriculum' (i.e. more sustainable teaching methods and/or course delivery) will be considered in Phase II.

The purpose of this phase is to establish the basic framework and data required by the STARS reporting process. The Working Group proposes the following definitions:

DEFINITION OF SUSTAINABILITY

Sustainability refers to the capacity of human systems to thrive while maintaining and restoring ecosystem health and conserving Earth's natural resources. It implies the intent to

¹ Members during the 2012/2013 academic year: Devin Latimer (Chemistry) Kirit Patel (International Development Studies) Don Metz (Education) Allison Surtees (Classics) Mati Dubrovinsky (Economics, fall term only) Alan Diduck (Environmental Studies & Science), Michael Dudley (Library) Alana Lajoie-O'Malley (Campus Sustainability Office) Liz Williams (Campus Sustainability Office).

² STARS (<https://stars.aashe.org/>) is quickly emerging as the standard North-American campus sustainability benchmarking and reporting tool. It provides an external method of measuring the University's sustainability performance and a measure of transparency and accountability to our sustainability efforts. It also helps us understand how we are performing relative to other North American universities and colleges.

meet equitably the needs of the present without compromising the ability of future generations to meet their own needs.

SUSTAINABILITY IN THE CURRICULUM

Sustainability in the curriculum refers to learning at The University of Winnipeg that: (1) is either sustainability focused or sustainability related; (2) uses sustainable course delivery methods; and (3) teaches skills and aptitudes required for a societal transition to sustainability.

The Working Group wishes to emphasize that in Phase 1, only the first (1) element of the three (3) part definition of ‘Sustainability in the Curriculum’ is being addressed.

A **sustainability-focused course** is a course that considers as its central theme society, the economy, and the environment within the context of the academic study of sustainability.

A **sustainability-related course** is a course that considers society and/or the economy and/or the environment within the context of the academic study of sustainability in a portion of the course (i.e. a module).

In both cases, the term “sustainability” must be explicitly and meaningfully used in the course.

SUSTAINABILITY RESEARCH

Sustainability research focuses on a key relevant principle (such as social equity or environmental stewardship); addresses a major challenge (such as climate change or poverty); or furthers our understanding of the interconnectedness of societal, economic and environmental challenges.

The Campus Sustainability Office (CSO) will be responsible for developing the method for completing the inventory, while the Committee will advise the CSO in this process. The target completion date for this inventory will be February 15, 2014.

Phase II: Develop and clarify the “sustainable course delivery” and “skills and aptitudes required for a societal transition to sustainability” elements of definition of “Sustainability in the Curriculum,” with the aim of bringing a proposed framework to Senate by the end of the 2013/2014 academic year. Timelines for an inventory of these elements of “Sustainability in the Curriculum” will be proposed at this time.

Title	Department	Course #	Description
Introductory Anthropology	Anthropology	1001	Components on adaptive strategies, cultural ecology, traditional ecological knowledge and carrying capacity, especially among foraging, horticultural and agricultural societies (past and present).
Introductory Cultural Anthropology and Linguistics	Anthropology	1002	Components on adaptive strategies, cultural ecology, traditional ecological knowledge and carrying capacity, especially among foraging, horticultural and agricultural societies (past and present).
Introductory Biological Anthropology and Archaeology	Anthropology	1003	Components on adaptive strategies, cultural ecology, traditional ecological knowledge and carrying capacity, especially among foraging, horticultural and agricultural societies (past and present).
Ethnography of North American First Peoples	Anthropology	2103	Components on adaptive strategies, cultural ecology, traditional ecological knowledge among North American Indigenous peoples.
Indigenous People and the Industrial State	Anthropology/ International Development Studies	2160	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.
Archaeology of North America	Anthropology	2202	Components on cultural ecology, traditional ecological knowledge among North American Indigenous people as revealed through archaeological evidence.
Rise of New World Civilization	Anthropology	2210	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.
Rise of Old World Civilization	Anthropology	2211	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.
Algonquin Ethnography	Anthropology	3113/4113	Focus on traditional ecological knowledge of Cree and Ojibwe peoples in Manitoba, Ontario and Quebec.
Aboriginal Peoples of Arctic Canada	Anthropology/ History	3120/3522	Focus on adaptive strategies, cultural ecology, traditional ecological knowledge among the Inuit.
Material Culture in the History of the Aboriginal Peoples of Canada	Anthropology	3126	Components on how the technology of Indigenous peoples in Canada was ecologically adaptive.
History of the Aboriginal Peoples of the Northern Plains	Anthropology	3127	Components on cultural ecology, traditional ecological knowledge among North American Indigenous peoples.
History of Eastern and Subarctic Algonquian Peoples	Anthropology	3128	Components on cultural ecology, traditional ecological knowledge among Cree, Ojibwe and Dene peoples.
History of the Iroquoian Peoples	Anthropology/ History	3132/3532	Components on cultural ecology, traditional ecological knowledge among the Iroquoian peoples.
Cultural Perspectives on Global Processes	Anthropology/ International Development Studies	3160	Components of the environmental impacts associated with the development of industrial and information technologies.
Ethnoecology: A Research Approach	Anthropology/ Indigenous Studies	3170	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.
Issues in the Rise of Civilization	Anthropology	3205/4205	Components on how the rise of agriculture in Europe, the Middle East, Asia and Africa and the impact this had on the environment and the development of ancient states.
Biology and Human Concerns	Biology	1102	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.
Evolution, Ecology and Biodiversity	Biology	1116	Touches on issues related to sustainability throughout; distinct sections on conservation and restoration ecology.
Forest Policy and Management	Biology/ Environmental Studies	3476	Focuses on the principles and practices of sustainable forestry in Canada.
Comparative Animal Physiology II	Biology	3603	Exploring issues in conservation throughout the course; module on conservation physiology
Forest Health and Protection	Biology	4474	Focuses on the effect of fire, insect, disease and abiotic disturbances on the sustainable management of commercial forests in Canada.
Field Research in Animal Ecology and Energetics	Biology	4602	Wildlife ecology field camp with conservation physiology and conservation behaviour sections; focus on possible ways in which human activity affects wildlife.
Chemistry and Society	Chemistry	2801	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.
Environmental Chemistry	Chemistry	3601	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.
Environmental Toxicology	Chemistry/ Environmental Studies	3611	Provides an understanding of how and why chemicals may damage humans and other organisms; toxicological modelling and environmental risk assessment are introduced.
Program Evaluation in Development and Conflict Resolution	Conflict Resolution Studies/ International Development Studies	4922	Includes consideration of sustainability in the process of program evaluation, particularly in terms of the impacts development or conflict resolution based interventions may have on the environment, and the manner in which interventions seek to build long-term, sustainable social, political and economic change.
Economics of Natural Resource Extraction	Economics	2311	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.
Environmental Economics	Economics	2317	Examines the role of economics in decision-making about the environment.
Energy Economics	Economics	2318	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.
Topics in Mathematical Economics	Economics	4203	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.
Topics in Environmental and Natural Resource Economics	Economics	4317	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.
Special Topics in Education	Education	4000	Covers models of Sustainability Education, Sustainable Self and Ethics in Teaching, Real World Learning.
Early Years Curriculum, Instruction and Assessment: Social Studies	Education	4842	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.
Middle Years Curriculum, Instruction and Assessment: Social Studies	Education	4850	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.
Special Topics in Education: An Introduction to Teaching for Sustainability I and II	Education	5001	Covers topics such as the Earth Charter, ecological integrity, democracy, nonviolence and peace; the sustainable development debate is part of class.
Special Topics in Education: Sustainability and Environment	Education	5001	Covers McKeon's Framework for Analysis of an Environmental Issue; addresses major risks and consequences to natural environments and human systems, and economic implications.
Special Topics in Education: Cultural Sustainability	Education	5001	Understanding of sustainability from a cultural perspective; how educational practices may impede sustainability, the relationship of dominant and marginalized cultures, social responsibility.
Special Topics in Education: Peace and Development	Education	5001	Covers peace and security, insecurity and conflict, overwhelmed health systems, the destruction of homes, schools and often whole communities, displaced people and refugees; education for sustainable development plays a key role in promoting values for peace.
Special Topics in Education: Action Research in Education for Sustainability	Education	5001	Covers action research in education, specifically education for sustainability and to reflect on their own practice in their classrooms (or other settings).
Special Topics in Education: Sustainability Economics	Education	5001	Covers the principles of sustainable economics and its role in teaching for sustainability; Sustainable Economics, poverty, sustainable communities, policy on sustainable economics, and alternative economic models.
Special Topics in Education: Global Perspectives on Indigenous Societies, Education and the Environment	Education	5001	Examines Indigenous perspectives on contemporary global problems that affect the environment and humanity; the implications of contemporary industrial and consumer culture for the future of human societies are studied within the framework of the primal insights, values and definitions of community shared by Indigenous peoples throughout the globe.
Special Topics in Education: Field-Based Learning	Education	5001	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.
Special Topics in Education: Project	Education	5001	Project might include (but not limited to) action research in schools and classrooms, comprehensive theoretical research paper, portfolio, research based school initiated course development (SIC).
Human-Environmental Interactions	Environmental Studies	1600	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.
Sociology of the Environment	Environmental Studies/Sociology	2502	Debates surrounding such concepts as sustainable development, deep ecology, environmental justice and global change are emphasized.
Voluntary Simplicity	Environmental Studies/ International Development Studies	2521	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.
Environmental Sustainability: A Global Dilemma	Environmental Studies/ International Development Studies	2603	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
Environment and Health	Environmental Studies	2604	Provides a scientific overview of selected chemical contamination issues, discusses relative risks of recognized and potential hazards, and assesses possible technical and regulatory solutions.
Issues in Sustainable Cities	Environmental Studies/Urban and Inner City Studies	3025	Addresses issues of sustainable urban development.
Law and the Environment	Environmental Studies	3035	Provides an introduction to Canadian environmental law, including common law and statutory regimes.
Winnipeg and the Environment: A Case Study Approach	Environmental Studies/Urban and Inner City Studies	3603	Focuses on the particular problems facing the City of Winnipeg in its interaction with the environment.
Business and the Environment	Environmental Studies	3606	Examines practical examples of ways in which business operations have responded to environmental and sustainability challenges and opportunities.
Forests and the Environment	Environmental Studies	3607	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.
Forest Wildlife Management	Environmental Studies	3608	Focuses on the management of wildlife populations in forested environments in Canada; examination of forest biodiversity including conservation strategies.
Geographic Perspectives on Environment and Sustainability I	Environmental Studies/Geography	4450	Considers geographic and environmental approaches to sustainable staples-based development, particularly as they apply to water, energy and mining.
Environmental Impact Assessment	Environmental Studies	4611	Explores the methodology of environmental impact assessment (EIA).
Environmental Soil Science	Environmental Studies	4615	Provides students with a comprehensive knowledge of environmental issues related to soil science emphasizing the significant role soil plays in sustaining environmental quality.
A Geographical Perspective on Tourism	Geography	2412	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.
The Urban Environment	Geography	2414	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.
Urban Revitalization: Rebuilding of Decaying Cities	Geography	3413	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.
Conservation	Geography	4232	Will examine such topics as agroforestry development, biological diversity, soil erosion, sustainable forestry, and ecosystem destruction, in order to better understand both the problems and potential solutions.
Advanced Tourism and Recreation Geography	Geography	4407	Based on a selection of advanced readings on topics and problems dealing with recreational and tourism behaviour, the supply and demand for different types of recreational space and tourism facilities, and issues of sustainability.
Indigenous Peoples, Lands, and Resources	Indigenous Studies	2050	Explores issues surrounding indigenous peoples globally and their relationship to natural resources for a development; analyzes conflicts associated with traditional development projects, as well as contradictions and possibilities for indigenous communities.
Special Topics in Indigenous Studies: Summer School on Field Ethnobotany, Summer 2014	Indigenous Studies	3001	Offers an opportunity to study the multiple dimensions (such as medicinal, ceremonial, aesthetic and subsistence) of local uses of plants by indigenous communities in Manitoba along with the botanical knowledge of these plants.
The Politics of Indigenous Knowledge and Biodiversity	Indigenous Studies	3010	Focuses on emerging issues for Indigenous peoples regarding the use and exploitation of their knowledge and biological resources.
Indigenous Peoples, Globalization and Development	Indigenous Studies/ Indigenous Development Practice	4023/7023	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.
Biocultural Diversity Conservation: Issues for Indigenous Peoples	Indigenous Studies	4024.7024	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.
Seminar in Selected Topics: Indigenous Food Security	Indigenous Studies	4200/7200	Offers students a chance to explore and critically engage with concepts, approaches and practices of community-based traditional food production, consumption and distribution processes adopted by Indigenous and local communities in order to become sustainable communities and achieve community food security.
Introduction to International Development Studies	International Development Studies	1100	Introduces sustainability in the context of "ecological footprints" in development work.
Participatory Local Development	International Development Studies	2110	Analyzes current emphases on participation and empowerment, gender equity, social capital, sustainable livelihoods, social justice and local governance.
Rural Development	International Development Studies	2131	Examines changes to rural society and economy in the South (Africa, Asia and Latin America) brought about historically by colonialism, and more recently through modern development efforts.
Special Topics: What We Grow, Share and Eat	International Development Studies	2182	
An Analysis of Development Aid Policies	International Development Studies	3111	Focuses on development aid policies and the administration of aid programs of the developed countries; will challenge students to think in terms of sustainable development - how can aid effectiveness be improved and sustainable development achieved?
Selected Topics in International Development Studies	International Development Studies	4182	Presents an in-depth study of a particular problem in development, using theoretical and/or applied concepts.
Linear Optimization	Mathematics	2701	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.
Environmental Ethics	Philosophy	2233	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.
Philosophy of Nature	Philosophy	2234	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, Biogenetics, etc.); environmental sustainability a secondary theme throughout.
Introduction to Political Science	Politics	1011	Includes discussion on environmental movements and political issues surrounding the environmental, social and economic aspects of sustainability.
Sustainability and Environmental Politics	Politics	3450	Examines measures and implications of the concept of sustainability as it impinges on virtually every policy area in Canada.
Religion and Society: The Critique of Development	Religion and Culture	2511	Brings a variety of faith-based and ethical perspectives to sustainability and the wider economic, social, and political environment in which sustainability must be understood. Of particular relevance to Manitoba is Aboriginal spirituality and experience.
Ecology and Religion	Religion and Culture	2515	Explores the relationship between the religious beliefs and the perceptions about nature in the context of Western, Eastern, and Indigenous Cultures.
Composing Our Winnipeg: Rhetoric of/and the City	Rhetoric, Writing and Communications	3321	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.
Writing Partnerships Practicum	Rhetoric, Writing and Communications	3331	Stresses the concepts of experiential education and of writing as social action; goals include understanding the intersections between writing and social justice initiatives.
Women, Health and the Environment	Women's and Gender Studies	3004	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.
Topics in Local, National and Global Cultures	Master of Arts in Cultural Studies	7741	Focus on such topics as: the implications of globalized culture of Canadian and Aboriginal texts and identities; the potential for a global and collaboration across nations and cultures; the ways in which local histories and contexts engender different relations to the global; and the language of human rights.
Human Security and Indigenous Knowledge	Master's in Development Practice	7702	Seeks to bring together two frameworks, human security and traditional indigenous knowledge and cultures, to examine the practice of development.
Indigenous Education in an Era of Globalization	Master's in Development Practice	7703	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.
Health and Sustainable Development	Master's in Development Practice	7704	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.
Environment and Sustainability	Master's in Development Practice	7705	Considers the application of environmental knowledge to the development of sustainable resource management.
Leadership in Human Resource Management	Master's in Development Practice	7706	Looks to build the HR and management skills required of a project/program director working in sustainable development.
Indigenous Economic Development	Master's in Development Practice	7707	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-government through community economic development.
Global Classroom: Integrated Approaches to Sustainable Development Practice	Master's in Development Practice	7708	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.
Indigenous Thought and Worldviews: Sustainable Understandings	Master's in Development Practice	7709	Helps students gain insights into the core concepts of sustainable development, global sustainability, earth stewardship, and self-determination through indigenous perspectives.
Macroeconomic Policy and Sustainable Development	Master's in Development Practice	7711	Considers how economic theory improves the understanding of issues facing developing communities.
Poverty and Human Rights	Master's in Development Practice	7712	Involves the analysis of poverty among indigenous peoples and communities in terms of human rights; includes critical analysis of how poverty is conceptualized in relation to various frameworks of sustainable development, such as the capability and rights-based approaches.
Business Planning in Indigenous and Marginalized Communities	Master's in Development Practice	7713	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.
Theories and Methods of Program Planning and Evaluating	Master's in Development Practice	7721	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.
Indigenous Research Methods	Master's in Development Practice	7722	Offers analysis of Western research methods and their histories in colonial practices as well as their potential usefulness in indigenous communities; includes a development research and applications; includes an overview of indigenous control of their own research and ethical review processes related to development issues, programs, and implementation.
Managing for Environmental Sustainability	Master's in Development Practice	7750	Considers geographic and environmental approaches to sustainable staples-based development, particularly as they apply to water, energy and mining.
Seminar in Development Practice	Master's in Development Practice	7790	Enables students to interact with and learn directly from practitioners of sustainable development (in practice); also aims to encourage students to reflect on the inter-related and multi-faceted nature of challenges to sustainable development practice.
Development Economics	Master of Arts in Environmental, Resource and Development Economics	7305	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.
Natural Resource Economics	Master of Arts in Environmental, Resource and Development Economics	7311	Reviews the normative foundations of natural economic resources, addressing concepts such as efficiency, intergenerational equity and sustainability.