

Sustainability Courses at UNB

Course ID	Dept	Course Name	Course Description	Focus or Relation
ADM 4325	Administration	Consumer Behaviour	Appraises concepts and their interrelationships in order to develop an understanding of consumer decision-making processes. Includes basic individual determinants of consumer behaviour, environmental influences on consumers, purchase processes, post-purchase processes, market segmentation, brand loyalty, fear appeals.	Focus
ANTH 4114	Anthropology	Culture and Environment	Examines how culture mediates the relationship between humans and their environment, including traditional ecological knowledge and/or local knowledge systems.	Relation
BIOL 1621	Biology	Topics in Biology I: Life on a Changing Planet	This course will introduce students to the biodiversity, ecology, and evolution of life on Earth through exploration of the ever-changing nature of Earth's ecosystems. We will address topics such as major groups of plants and animals through the history of life; responses of individual organisms, populations, and species to changing environments; climate change in past, present and future; and human impacts on the biosphere.	Relation

BIOL 3301	Biology	Taxonomy of Flowering Plants	<p>Why is it that the flowering plants are the most recently evolved of all the major plant groups yet they are by far the most diverse and abundant? The diversity of flowering plants and their identification, description and classification will be emphasized in relation to the flora of New Brunswick and major flowering plant families of the world.</p>	Relation
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BIOL 3423	Biology	Forest Tree Genetics and Genomics	<p>Various genetics, genomics, biotechnology and breeding concepts and principles and their applications in tree biology, tree improvement, silviculture, conservation of genetic resources and sustainable forest management, will be discussed.</p>	Relation
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BIOL 3441 / FOR 3445	Biology / Forestry	Forest Ecology: Populations and Communities	<p>To understand and link processes acting on individuals, populations and communities in space and time. To predict the response of individuals, populations and communities to disturbance, and to understand the implications of such responses for management of populations, communities and ecosystems.</p>	Relation
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BIOL 3459	Biology	Economic Botany	<p>Discusses concepts and principles that can be derived from the biological, sociological, and economic impact of the use of plants for food, shelter, landscaping, and general well-being. Considers the different methods and reasons why various plants are cultivated and/or utilized by humans</p>	Relation
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BIOL 3521	Biology	Plant Function: Physiology and Metabolism	The relationship between primary metabolism and global atmospheric climate change will be discussed. Additional topics include the effect of abiotic environmental stresses on plants, including herbivory, extreme temperature, drought, flooding, and pollution.	Relation
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BIOL 2063	Biology	Biological Diversity	Biological diversity, life on planet Earth, is an interconnected continuum in time and space. All life is connected through genetic ancestry, but also through interactions in and with changing environments. The course provides students with a well-rounded understanding of biological diversity, including the concepts of and tools to study biological diversity, the innovations underlying the large biological diversity on our planet, a broad overview of biological diversity on our planet in the past and present, and importance of biological diversity to humans and the biosphere we inhabit.	Relation
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BIOL 3633	Biology	Biological Oceanography	This course considers how oceans, which cover more than 70% of the earth's surface, act as a dominant environmental force. It examines the processes regulating the abundance, diversity, distribution and production of microbes, phytoplankton, zooplankton and high trophic levels. By exploring the influence of physical factors (i.e. tides, waves, upwelling, light), we will see how temporal and spatial scales are critical for understanding the living ocean.	Relation
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BIOL 4191	Biology	Wildlife Management	Studies biological, economic, and human factors affecting wildlife populations	Relation
BIOL 4352	Biology	Climate Change and Environmental Response	Examines theories and patterns of climate change since the last Ice Age. A variety of paleoecological techniques applied to a number of fossil organisms will be discussed in relation to the information they yield about past environments.	Relation
BIOL 4413	Biology	Environmental Plant Physiology	An advanced seminar-style course emphasizing the responses of photosynthesis and other key aspects of plant metabolism to short - and long - term environmental variation. Among the topics that may be considered are the effect of changing atmospheric CO ₂ , the acclimation to elevated temperatures, the physiological adaptations that influence plant energy balance, and the regulation of photosynthesis.	Relation

BIOL 4423 / FOR 4425	Biology / Forestry	Resource Conservation Genetics	<p>This class will examine the application of genetic principles, concepts and biotechnologies in conservation, sustainable management and restoration of natural and managed resources. The topics will include: conservation, sustainable management, ecological restoration, and minimum viable population size; indicators for population viability; exploration, evaluation, utilization, and conservation of genetic resources; genetic consequences of habitat fragmentation, resource management practices, domestication, climate change, and natural disturbance; and challenges, opportunities and strategies for conservation and sustainable management of genetic resources.</p>	Relation
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BIOL 4863	Biology	Environmental Biology	<p>Examines the effects of human activity upon the environment, both locally and globally.</p>	Focus
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BIOL 4991	Biology	Aquaculture in Canada	<p>The focus of the course is on fish culture, however, consideration is also given to bivalve and seaweed culture. Topics covered include controlled reproduction, genetics and biotechnology, nutrition and feeding, stress and disease, and sustainability.</p>	Relation
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CHE 2525	Chemical Engineering	Fundamentals of Chemical Process Design	Fundamental Chemical Engineering concepts such as material and energy balances, thermodynamics, fluid mechanics and materials science are integrated into the design process. Flowsheet preparation, chemical process safety, loss prevention and project planning; codes and standards, responsible care and environmental stewardship.	Relation
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CHE 5313	Chemical Engineering	Energy and the Environment	Explores generation and use of energy is examined from extraction of raw materials through product production. Includes: survey of known material reserves, emerging technologies, discusses the thermodynamic and regulatory constraints to energy conversion. Fossil fuels, nuclear power and renewable energy sources including the environmental factors associated with the mining, conversion and end products from each technology are described.	Relation
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CHE 5214	Chemical Engineering	Chemical Process Industries	A technical overview of selected chemical industries with consideration of their impact on the environment. Emphasis is on current process technology and pollution control methods. Environmental guidelines and regulations are also presented.	Relation
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CHE 5413	Chemical Engineering	Air Pollution Control	Sources of air pollution; modeling atmospheric dispersions; pollution control in combustion; particulate control methods; control of gaseous emissions; industrial odour control; indoor/in-plant air quality.	Relation
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CHE 5824	Chemical Engineering	Corrosion Processes	Introduction: corrosion and its costs, corrosion measurement, general materials and environment affects.	Relation
CE 3403	Civil Engineering	Introduction to Environmental Engineering	Introduces the problems and principles of control or modification of the environment. Considers an environmental dimension to all planning, design and analysis functions carried out by engineers	Relation
CE 5153 / GE 5153	Civil Engineering / Geological Engineering	Environmental Geotechnics	Design of sanitary landfills, with emphasis on clay liners and composite liners. Properties of geosynthetics. Geotechnical properties of municipal solid waste. Landfilling procedures. Hydrological evaluation of sanitary landfills	Relation
CE 5342 / GGE 5842	Civil Engineering/ Geodesy and Geomatics Engineering	Site Planning	To better appreciate the comprehensive nature of site analysis and the physical, social and environmental impacts of engineering works on a site and its surroundings. To incorporate site characteristics to enhance a project in terms of costs, appearance and energy efficiency.	Relation
CE 5402	Civil Engineering	Environmental Planning for Capital Works	Application of environmental principles in the planning, design and construction of civil engineering projects including highways, pipelines and land developments. Elements of the environmental planning process and characteristics of environmental risk analysis as they relate to environmental impact assessment are stressed	Relation

CE 5411	Civil Engineering	Water Supply and Wastewater Removal	Layout and design of water and sewer systems including analysis of alternatives in system requirements. Specific topics include water and wastewater volumes, transportation and distribution of water, collection and conveyance of wastewater, and pumping stations for water and wastewater systems.	Relation
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CE 5421	Civil Engineering	Water Quality and Treatment	Applied water chemistry, epidemiological analysis, water analysis, water treatment processes and design, water treatment systems and plant design, public health issues and case studies. The content is tailored towards drinking water quality and treatment issues. This will be supplemented by detailed design of unit operations and processes involved in the treatment of drinking water.	Relation
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CE 5432	Civil Engineeing	Wastewater Treatment and Pollution Control	Applied wastewater microbiology, wastewater analysis (physical, chemical, and biological), wastewater treatment processes, industrial and municipal wastewater treatment and management, wastewater treatment systems and plant design. The course content will focus on treatment and management issues of wastewater from industrial, municipal, and domestic sources. Pollution control strategies and protocols are also examined.	Relation
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CE 5473	Civil Engineering	Elements of Environmental Engineering for Chemical Engineers	Applications of microbiology in environmental engineering. Microscopic examination and biological tests of water and wastewater samples.	Relation
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CE 5612	Civil Engineering	Construction: Financial and Industry Issues	The course focuses on the financial aspects of construction including methods and techniques for: estimating costs of construction; project financing and managing risks; and monitoring and controlling costs. The course will also introduce current issues within the industry, primarily from the financial perspective (e.g., infrastructure management, sustainable construction, quality management, technology adoption)	Relation
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ESCI 1012	Earth Sciences	Earth Processes, Resources, and the Environment	Natural resources and environmental problems in context of the Earth's physical, biological, and chemical processes	Relation
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ESCI 1063	Earth Sciences	Earth Systems Geology (How the Earth Works)	Surveys the origin of the Earth as part of the solar system, formation of a dynamic planet, geophysical and geochemical characteristics, development and evolution of life, plate tectonics, geomorphology, rocks and minerals, deformation, sedimentation, climate change and geological hazards.	Relation
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ESCI 2022	Earth Sciences	Engineering Geology	A study of geological materials and hazards for site investigation and assessment of risk and remediation; engineering classification of geological materials, properties and relationships; engineering in the existing and changing environment and exacerbation of natural processes; geological constraints for construction, foundations, tunnelling, waste disposal and mining, with case histories of geological problems in engineering projects.	Relation
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ESCI 2151	Earth Sciences	Earth Science and Society	An in-depth examination of topical societal issues related to earth science (e.g., the uranium cycle, climate change and sea level rise, shale gas and groundwater resources, metals in the environment, mine development and remediation, earthquakes, tsunamis, active volcanism, medical geology, planetary geology, asbestos and industrial mineralogy). Topics will vary according to recent geological events and societal issues.	Relation
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ESCI 3442	Earth Sciences	Environmental Geology	An introduction to the global water cycle and water balance, catchment water balance, measurement and estimation of water balance parameters, aspects of sediment transport and erosion, monitoring the distribution of contamination by sediment sampling. Assignments focus on aspects of catchment water balance. Seminars and term papers are based on topics of regional and global importance with respect to water availability and quality.	Relation
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ESCI 3482	Earth Sciences	Mineral Resources, Economics, and the Environment	This course presents various types of mineral deposit resources, integrated with economic and environmental considerations with impacts related to exploration and mining activity	Relation
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ESCI 4452	Earth Sciences	Environmental Impact Assessment	Introduction to environmental impact assessment (EIA) from the Canadian perspective, covering the history, scope and need for EIA, as well as the general approach and regulatory framework used in Canada and New Brunswick. The majority of the course focuses on geosciences in environmental investigations. Topics include: goals of investigations; physical processes of dispersion in the atmosphere, surface water, groundwater and glacial systems; important geochemical concepts that influence the transport and fate of contaminants in the environment.	Relation
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ECON 3755	Economics	Environmental Economics	Examines interaction of ecological and economic systems. Considers population growth and food supply, non-renewable resources, and population.	Relation
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ECON 3766	Economics	Economics of Climate Change	<p>Climate change is posing a significant challenge to world economies. This course focuses on valuing the consequences of climate change and assessing the costs of mitigation and adaptation. The efficiency of alternative policy instruments such as carbon taxes, tradable emissions permits, voluntary initiatives, and others are assessed. Existing instruments, such as carbon taxes in British Columbia and carbon credit trading on the Chicago Climate Exchange are reviewed and critiqued. The potential contribution of these instruments to the overall achievement of Kyoto Protocol targets set by various countries is examined.</p>	Relation
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ECON 3865	Economics	Energy Economics	<p>Applies economic theory to energy issues. Demand for energy and supply of energy are explored in terms of non-renewable and renewable energy resources. Markets for energy resources are discussed. Specific attention is directed to petroleum markets and OPEC behaviour. Public policy issues associated with the energy sector such as the environment and sustainability are addressed.</p>	Relation
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ECON 5755	Economics	Environmental Economics II	Applies economic theory to real-world environmental issues. The theory of environmental externalities is first explored. Then various applications are introduced such as environmental valuation techniques, computable general equilibrium modeling, and environmental accounting procedures. Such environmental issues as deforestation, urban air pollution, and water pollution will be covered.	Relation
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ECE 3612	Electrical and Computer Engineering	Electric Machines and Design in Sustainable Energy Systems	Covers the basic theory of, transformers, DC motors/generators and AC polyphase machines, including synchronous and induction machines. This material is augmented with the application and design of such machines utilized in Sustainable Energy systems.	Relation
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ENGG 4013	Engineering	Law and Ethics for Engineers	General introduction to the legal and ethical aspects of engineering practice. Social responsibilities of engineers, the engineering act and code of ethics, occupational health and safety, sustainable development, environmental stewardship, employment equity, legal duties and liabilities of the professional engineer, contracts, the tort of negligence, labour law, intellectual and industrial property, conflict resolution.	Relation
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ENR 1001	Environment and Natural Resources	Resource Management Issues, Ethics, and Communication I	Environmental and resource management problems and issues are, by definition, interdisciplinary in nature. This course is designed to both expose students to a variety of contemporary resource management and environmental challenges, from local to global scales, and to help them harness the tools and develop requisite skills to describe, characterize, and explain these challenges. Fundamentals of ethics will be presented and related to contemporary topics and issues in resource management.	Relation
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ENR 1002	Environment and Natural Resources	Resource Management Issues, Ethics, and Communication II	Following on Resource Management Issues I, this course will increase students ability to detect and describe breadth, depth, and complexity of contemporary resource management and environmental issues. Focus will be on the theoretical and technical aspects of environmental communication. Ethical issues in science, social science, communications and resource management will be presented	Relation
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ENR 1973	Environment and Natural Resources	Fall Field Camp	An introduction to field work, technical skills, and issues associated with natural resource management - forests, water, environment, and wildlife. Each day focuses on a particular skill needed to assess an aspect of natural resources	Relation
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ENR 2004	Environment and Natural Resources	Social and Cultural Systems	<p>In this course students will learn how to describe and measure the structure and function of human communities; and determine how different social and ethnic groups perceive and relate to the physical environment. We will discuss major environmental movements and describe social values, how they change, what influences them and how they result in policy reform and behavioral change. We will cover basic sociological theory including topics such as institutions, the nature of capitalism, and the philosophical underpinnings of resource management</p>	Relation
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ENR 2006	Environment and Natural Resources	Management of Natural Systems	<p>Introduces management design issues and practices for a variety of natural systems so that students can effectively work across related disciplines. Objectives: Quantitatively design and evaluate strategies aimed at producing a desired set of outcomes for natural systems, including forests, wildlife populations, and hydrological networks</p>	Relation
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ENR 2021

Environment
and Natural
Resources

Natural Resource
Management
Institutions,
Policy, and
Governance

This course examines how resource and environmental management systems and tools are developed in cultural and institutional contexts and how these contexts shape the definitions of problems and the management systems proposed as solutions. Included will be analysis of different management regimes and decision-making processes: technocratic, community-based, co-management, network governance, etc. In each case, we will examine the scale of the management issue (local, regional, national, international) and in that context, who has authority, legitimacy, power, accountability, and why; how they obtain, maintain, and enhance them; and implications of each in terms of different management contexts (e.g. common pool resources). Traditional policy-making models will be presented, as well as analytical tools for policy evaluation.

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ENR 2114	Environment and Natural Resources	Water Sustainability: Practice and Technology	The theme of this course is how humans impact the environment with our developing technologies. The course examines how aquatic ecosystems are altered by the activities of agriculture, forestry, aquaculture, solid waste disposal, our demands for industry, e.g., pulp and paper, manufacturing, and mining, and our basic needs for clean drinking water, e.g., water and sewage treatment. The course appraises evolving, alternative technologies, with visits to some of these operations to learn how new technologies are reducing impacts and protecting water resources for the future.	Focus
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ENR 3002	Environment and Natural Resources	Applied Environmental Management	Based largely on a detailed examination of one or more case studies of integrated planning projects that involve social, economic, engineered, biological, and ecological systems (e.g. pipeline routing and construction, highway construction, forest planning, hydroelectric dam construction, woodlot development projects, etc.)	Relation
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ENR 3111	Environment and Natural Resources	Estuary & Ocean Ecosystems	Estuaries and the coastal environment are where most of us live and work and we are the largest single impact on estuarine and coastal ecology. These impacts, how coastal environments are changed by them, how we measure these changes, and what can be done to mitigate these impacts will be examined	Relation
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ENR 3112	Environment and Natural Resources	Water Resources Management	<p>An Introduction to Integrated Water Resources Management, this is a broad examination of critical concepts and knowledge needs including essential human and institutional capacities. Topics include: impacts of anthropogenic alterations on the water cycle; changes and impacts that occur as a result of land use change and development; aquatic ecosystem health and impact assessment; water use (quality and quantity issues); wastewater issues including impacts, methods of treatment and mitigation, the urban water cycle and methods to evaluate and choose appropriate technologies; governance and capacity building in communities; and building and maintaining water management infrastructure.</p>	Relation
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ENR 3201	Environment and Natural Resources	Urban Hydrology and Water Management	<p>This course focuses on hydrological theories and tools needed for urban watershed management, involving water supply, conservation and treatment. Topics include storm-water retention on and flow through porous and impervious surfaces, and subsequent run off generation.</p>	Relation
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ENR 3532	Environment and Natural Resources	Ecohydrology	<p>Hydrological processes at the landscape level are emphasized to demonstrate the connections among hydrology, biology, and the exploitation of water resources by humans</p>	Relation
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ENVS 2003	Environmental Science	Introduction to Environmental Studies	This course broadly covers issues relating to the impact of human activity on air, water and soil environments. It covers the causes and effects of pollution, challenges to remediation, and suggests courses of action for reducing human impact. In addition to formal lectures, the course will include guest lectures, special projects, debates and advocacy efforts to improve the environment.	Focus
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ENVS 2023	Environmental Science	Climate Change	This course begins with an overview of the science of climate change and its historical/projected impacts on environmental, social, and economic systems. Then, mitigation and adaptation policy options that are available to Canada and other countries will be investigated. Particular issues that may be addressed include the role that humans play in creating climate change, the uncertainty involved in making future climate change projections, and municipal plans to adapt to climate change.	Relation
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ENVS 4001	Environmental Science	Environmental Impact Assessment and Management	<p>This course focuses attention on the implementation of environmental problem solving techniques. Students will learn many practical methods for assessing problems and justifying solutions. These may include such activities as preparing media pieces and briefing notes to government officials, setting up environmental impact assessments and audits, testing for water/soil/air contamination, and surveying the public/industry on various issues. Throughout these activities, students will be required to critically examine the social, political, philosophical, economic, and ecological outcomes of their activities.</p>	Relation
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ENVS 4002	Environmental Science	Stakeholder Approaches to Environmental Problem Solving	<p>Most environmental issues have many sides including scientific, social, political, and economic, and comprise multiple players and stakeholders promoting divergent points of view. This course is designed to explore these elements in detail. Current national, regional and local problems will be brought to the class by a number of guest speakers in order to help students critically analyze the roots of the problems and possible solutions. The problems discussed will include such issues as environmental scope, biodiversity decline, climate changes, air and water quality, population and consumption per capita, biotechnology and genetically altered foods.</p>	Focus
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ENVS 5003	Environmental Science	Environmental Management Tools	Presents students with a wide array of tools used to assess and manage activities that impact the environment. Tools considered may include environmental indicator measurement, environmental risk assessment, life-cycle assessment, environmental management systems, sustainable forest management certification, and others.	Focus
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FOR 1001	Forestry	Introduction to Forestry	This course provides students with an overview of field forestry skills through collection and analysis of basic stand-level inventory data. Emphasis is on developing basic mensuration and computation skills through a series of laboratory exercises and solving practical problems. Students learn how to quantify stand structure and to use basic quantitative information to make forestry decisions.	Relation
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FOR 2113	Forestry	Introduction to Forest Wildlife Ecology	Emphasizes interdependence of forest organisms and the terrestrial and aquatic components of their environment, especially in the context of industrial forestry. Introduces an ecological approach to impacts of harvesting on forest ecosystems and the major groups of wildlife inhabiting forests, including species at risk. Covers identification and habitat requirements of selected wildlife species, and applicable legislation.	Relation
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FOR 2432	Forestry	Forest Inventory and Growth	Focuses on the design and analysis of forest level inventories. Concepts of stratification and multistage sampling are presented. Approaches to modelling and predicting stand growth and inventory updates are explored.	Relation
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FOR 3101	Forestry	Forest Economics	This course applies economic tools to help make informed forestry decisions that will most effectively meet private and social goals.	Relation
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FOR 3456	Forestry	Forest Watershed and Forest Fire Management	Emphasizes the principles of management of watersheds and fire at the stand and landscape level. Influences of climate, topography/terrain, and stand and fuel types are covered. Concepts of watershed conservation are introduced as well as principles and models dealing with water retention and flow, and carbon and nutrient cycling in primary forest watersheds. Fire management concepts deal with the Fire Weather Index system, the Fire Behaviour Prediction system, fire ecology, and fire management strategies, tactics and operations.	Relation
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FOR 3457	Forestry	Forest Watershed and Water Quality Management	<p>Emphasizes the principles of management of watersheds and fire at the stand and landscape level. Influences of climate, topography/terrain, and stand and fuel types are covered. Concepts of watershed conservation are introduced as well as principles and models dealing with water retention and flow, and carbon and nutrient cycling in primary forest watersheds. The course provides lectures and laboratory exercises dealing with chemical, biochemical, and biological water quality enhancement and pollution issues.</p>	Relation
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FOR 3885	Forestry	Non-Timber Forest Products	<p>Provides an overview of the diversity of non-timber forest products (NTFPs) in Canada and North America. Introduces major classes of NTFPs including medicinal plants; maple and birch products; mushrooms, fiddleheads and other edible plants; and essential oils. Introduces the science behind the production and commercial use of selected NTFP examples. Discusses issues of stewardship, sustainability and certification of non-timber forest products, emphasizing management of forest lands for multiple products and values.</p>	Focus
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FOR 4096	Forestry	Forest Landscape and Design	<p>exposing students to techniques available to forecast landscape patterns resulting from flow driven management planning, and to design landscape patterns based on analysis of natural dynamics.</p>	Relation
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FOR 4545	Forestry	Biodiversity and Ecosystem Management	To learn concepts and measurements about biophysical landscape dynamics, strategies for the maintenance of biodiversity, and ecosystem based forest management. To use contemporary examples of management of ecosystems.	Relation
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FOR 2933	Forestry	Bioethics in Forestry	This course deals with the moral decision-making in the management of the forest, its land, atmosphere, and living organisms. It considers uses and abuses of the forest environment that raise ethical issues of importance and integrity. The course will include an introduction to ethical principles and systems of ethics, dynamics and decision-making individually as well as collectively, concepts and assumptions about the environment, the rights of nature, conflicting values about nature implicit in anthropocentrism and biocentrism, and the need for interdisciplinary dialoguing in the formulation of policy, laws, and regulations.	Relation
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FOR 2946	Forestry	Bioethics, Emotional Intelligence, and the Nature of Spirituality	The course will include: a) an introduction to principles and systems of ethics and what light these cast on human behavior; b) emotional intelligence and its usefulness in understanding basic human interactions; and c) spirituality in terms of a common element in human nature. With this background, consideration will then be given to dynamics of decision-making, individually as well as collectively, concepts and assumptions about the environment, the rights of nature, conflicting values about nature implicit in anthropocentrism and biocentrism, and the need for interdisciplinary dialoguing in the formulation of policy, laws, and regulations.	Relation
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FOR 3425	Forestry	Forest Tree Genetics and Genomics	various genetics, genomics, biotechnology and breeding concepts and principles and their applications in tree biology, tree improvement, silviculture, conservation of genetic resources and sustainable forest management, will be discussed.	Relation
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FOR 4466	Forestry	Advanced Studies in Forest Plants and Their Environments	This course addresses eco physical relationships within forest stands integrated to the stand level. Specialized topics include: reactions of trees to air pollutants and climate change	Relation
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HIST 3355	History	Nature, Culture, and the Canadian Environment	Examines the relationship of humans in their environment from the end of the last glacial period to the late 20th century. Topics include the impact of climate on the development of Canadian society, the evolution of human-animal relationships, changing ideas about nature, and political discourse on and regulatory solutions to pollution and other forms of environmental degradation.	Focus
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HIST 5342	History	Environment History of North America	Examines the interaction of the peoples of Canada and the United States with the natural environment. Topics include the theory and methodology of environmental history, changing patterns of land use, resource depletion and industrial migration, the environmental implications of urbanization, and the intellectual and institutional development of the conservation/environmental movement.	Focus
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HIST 5345 / POLS 5345	History / Political Science	Natural Resources, Industrialization, and the Environment in Atlantic Canada	Explores the political, economic and environmental implications of the dependence on natural resources in Atlantic Canada, through an examination of the historical development of the forest, fishing, agricultural and mining industries from the eighteenth century to the post-Second World War period.	Relation
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ME 5473	Mechanical Engineering	Energy Management	Energy classification, sources, utilization, economics, and terminology. Principal fuels for energy conversion. Environmental impact analyses. Production of thermal energy, mechanical energy and electrical energy. Advanced and alternate energy systems. Energy storage. Energy audits. Energy management through control and usage strategies.	Relation
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ME 5553	Mechanical Engineering	Ocean Wave Energy Conversion	Introduction to the fundamental concepts of ocean wave energy conversion. Topics include: ocean wave mechanics, the wave energy resource, basic wave energy conversion techniques, analytical and experimental modelling of wave energy converter, power take-off systems, and environmental impact assessment.	Relation
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ME 5933	Mechanical Engineering	Industrial Ecology	Objective is to develop awareness and knowledge of a new way of thinking about economy-environment interactions. Of interest to those with an industrial or environmental background, or to those who have to interact with specialists in these disciplines. Topics include: humanity and environment; technology and industry; environmental concerns and risks assessment; relevant "external" factors; and introduction to life-cycle assessment; LCA inventory analysis stage; LCA impact - assessment stage; industrial design of processes and products; designing for energy efficiency; choosing materials; design for recycling; and standards	Focus
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PHIL 3221-29	Philosophy	Selected Topics in Environmental Philosophy	Examines methods and philosophical ideas associated with accounts of how we ought to think of the natural environment and how we should act with regard to the environment. Possible topics include: deep ecology, ecological feminism and social ecology, globalization, modern conceptions of property rights, overpopulation, consumption, and the placing of an economic value on nature	Focus
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PHYS 2902	Physics	Environmental Physics	With the population of the planet increasing and the natural resources decreasing, it is more important than ever to understand the manner in which those resources can and are being used as well as the environmental impacts of those uses. In addition, part of understanding those impacts is understanding how measurements of impacts are made.	Focus
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POLS 3712	Political Science	Globalization and Everyday Life	The course examines the globalization of production, work and consumption as localized changes that affect people on a daily basis. The course explores their transnational links by utilizing one case study a year (such as clothing, toys, food products or footwear) and emphasizing North-South relationships.	Relation
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POLS 3715	Political Science	The Critique of Alienation in Social and Political Thought	This course surveys the critique of alienation in social and political thought over the last 200 years. Thematic emphasis is on ... humanities relationship with nature	Relation
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POLS 4724	Political Science	Topics in Environmental History and Politics	This course surveys topics in North American environmental politics and history, including climate change, resource development, and water management. It examines the role of governments, the environmental movement, and industry. Finally, it examines how the environment as an idea has changed over time.	Relation
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SOCL 3563	Sociology	Global Perspectives in Environmental Health	Explores the broad conditions that shape environmental health, with special emphasis on both sociological analysis and political ecology. We will examine questions of science, public policy and social justice. This course will bridge the gap in understanding between policy and social perspectives and examine emerging strategies, from community-based monitoring to international negotiations concerning health and environment.	Relation
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SOCL 3553	Sociology	Sociology and the Environment	A sociological examination of the way humans perceive and relate to their physical environment. Potential topics include: environmentalism as a social movement, the social dynamics of environmental controversies, and public policy toward the environment.	Relation
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