

ENVIRONMENTAL STEWARDSHIP COURSE SUMMARIES

INTRODUCTORY

ENS1010: INTRODUCTION TO STEWARDSHIP

Students develop an understanding of the social, economic and political significance of environmental stewardship by creating a personal definition of *environmental stewardship* and examine the historical context of environmental stewardship.

Prerequisite: None

ENS1020: FOSTERING STEWARDSHIP

Students examine the management and conservation of the environment and local, provincial, national and international stewardship organizations and propose individual and shared actions that foster environmental stewardship.

Prerequisite: None

ENS1030: CONSUMERISM

Students develop an understanding of consumerism and consumption rates, their complexity and how they impact sustainable development.

Prerequisite: None

ENS1040: LIVING WITH THE ENVIRONMENT

Students develop an understanding of how humans interact with their natural and built environments. Students also investigate methods to monitor and measure the quality of natural and built environments in order to maintain healthy and sustainable environments.

Prerequisite: None

ENS1110: NATURAL RESOURCES

Students analyze the nature and extent of Alberta's natural resource, including air, water, soil, land, hydrocarbons, minerals, forests and wildlife and present the results of research on one or more issues related to sustainable resource development.

Prerequisite: None

ENS1115: RESOURCE MANAGEMENT

Students describe the practices used to manage air, water, soil and land use, hydrocarbons and minerals, forests and wildlife and present the results of their research on one or more issues related to resource development.

Prerequisite: ENS1110: *Natural Resources*

ENS1910: ENS PROJECT A

Students develop project design and management skills to extend and enhance competencies and skills in other CTS courses through contexts that are personally relevant.

Prerequisite: None

INTERMEDIATE

ENS2030: ECOLOGICAL ECONOMICS

Students examine the economic effects of local, provincial, national and international environmental policies and look at issues such as the costs and benefits of alternative environmental policies to deal with air pollution, water quality, toxic substances, solid waste and global warming.

Prerequisite: ENS1030: *Consumerism*

ENS2040: ENVIRONMENTAL HEALTH & SAFETY

Students identify issues related to environmental health and safety that result from activities within Alberta industries and describe specific environmental monitoring and management practices adapted by Alberta government and industry.

Prerequisite: ENS1040: *Living with the Environment*

ENS2050: ENVIRONMENTAL ETHICS

Students will investigate environmental ethics and identify methods for environmental advocacy.

Prerequisite: None

ENS2120: WATER MANAGEMENT 1

Students will examine water as a vital resource and the need to manage it. Areas of investigation include the uses of and stresses on this resource as well as ways in which water is managed.

Prerequisite: ENS1115: Resource Management

ENS2130: RENEWABLE & NONRENEWABLE ENERGY RESOURCES

Students examine current and potential renewable and nonrenewable energy production, the contributions of each to sustainable energy development, and the effects of these forms of energy production on the environment.

Prerequisite: ENS1110: Natural Resources

ENS2140: BY-PRODUCT MANAGEMENT

Students examine by-product (waste) management of natural and manufactured materials and identify its relationship to sustainable development.

Prerequisite: ENS1115: Resource Management

ENS2210: SUSTAINABLE BUILDING DESIGN & CONSTRUCTION

Students investigate sustainable building trends to reduce energy consumption, resource consumption and waste production. Areas of investigation include building techniques, material usage and life cycle management.

Prerequisite: ENS1020: Fostering Stewardship

ENS2220: ENERGY CONSERVATION PRINCIPLES

Students investigate the basic principles of energy conservation and efficiency and relate them to energy designs and systems used in the residential, commercial or transportation sector.

Prerequisite: None

ENS2910: ENS PROJECT B

Students develop project design and management skills to extend and enhance competencies and skills in other CTS courses through contexts that are personally relevant.

Prerequisite: None

ENS2920: ENS PROJECT C

Students develop project design and management skills to extend and enhance competencies and skills in other CTS courses through contexts that are personally relevant.

Prerequisite: None

ENS2950: ENS INTERMEDIATE PRACTICUM

Students apply prior learning and demonstrate the attitudes, skills and knowledge required by an external organization to achieve a credential/credentials or an articulation.

Prerequisite: None

ADVANCED**ENS3030: THE GREEN ECONOMY**

Students will investigate the impact of the emerging green economy and how it will influence provincial, national and global economic patterns.

Prerequisite: ENS2030: Ecological Economics

ENS3040: ENERGY & THE ENVIRONMENT

Students assess the social, economic and environmental benefits and costs of resource development and demonstrate personal and shared actions that foster energy conservation and environmental stewardship.

Prerequisite: None

ENS3050: ENVIRONMENTAL POLITICS

Students will investigate the relationships and roles of the local, provincial, and federal governments with respect to the environment. Student will also examine the global community's role and the co-operation between international governments to work toward a sustainable world.

Prerequisite: None

ENS3110: INTEGRATED RESOURCE MANAGEMENT

Students will develop and present an integrated plan for sustainable development that incorporates the supply side and the demand side of natural resource management and integrated land use.

Prerequisite: ENS1115: Resource Management

ENS3120: WATER MANAGEMENT 2

Students explain the principles of water management and establish appropriate water management practices for industrial, personal, and environmental use.

Prerequisite: ENS2120: Water Management 1

ENS3130: SUSTAINABLE ENERGY

Students examine opportunities for planning renewable energy development and conserving and reducing conventional energy use.

Prerequisite: ENS2130: Renewable & Nonrenewable Energy Resources

ENS3210: SUSTAINABLE COMMUNITY PLANNING & DESIGN

Students examine existing examples of community planning, evaluate different aspects of planning, investigate promising practices for sustainability and design a sustainability plan for the community they live in.

Prerequisite: ENS2210: Sustainable Building Design & Construction

ENS3220: ENERGY CONSERVATION APPLICATIONS

Students analyze energy-saving technologies and systems and design a residential or commercial structure or transportation technology that demonstrates the principles of energy conservation and efficiency.

Prerequisite: ENS2220: Energy Conservation Principles

ENS3910: ENS PROJECT D

Students develop project design and management skills to extend and enhance competencies and skills in other CTS courses through contexts that are personally relevant.

Prerequisite: None

ENS3920: ENS PROJECT E

Students develop project design and management skills to extend and enhance competencies and skills in other CTS courses through contexts that are personally relevant.

Prerequisite: None

ENS3950: ENS ADVANCED PRACTICUM

Students apply prior learning and demonstrate the attitudes, skills and knowledge required by an external organization to achieve a credential/credentials or an articulation.

Prerequisite: None