# Continuing Education Course List **Sustainability Focused Courses**

#### **Extension – Indigenous Relations:**

#### **EXARE 4650 - Worldview and History**

Indigenous culture is the cornerstone for building strong relationships amongst First Nations leaders, Elders and other First Nations members. Participants are introduced to the Indigenous worldview of Turtle Island, essential protocols to open good relationships, avoid inappropriate conduct, analyze historical impacts, and the roles of male and female Elders.

Offered: Fall & Winter 19, 18; Fall 17

Instructor: Diane Steinhauer dianes@ualberta.ca

# EXARE 4651 - Indigenous Laws, Lands and Current Industry Government Relations

This course will focus on the legal and policy principles as a guiding aspect of existing relationships between Indigenous peoples, government and industry. Topics covered include: Federal and Provincial legislation, regulations and policies impacting Aboriginal-Industry relations and Indigenous and Treaty rights. Participants will gain a deeper understanding of Indigenous perspectives of law through a decolonized framework aimed at fostering positive relationships that move towards reconciliation.

Offered: Spring 19, Winter 19, Fall 18, Fall 17 Instructor: Janice Makokis <u>jmakokis@ualberta.ca</u>

#### **EXARE 4652 - Environment and Livelihood**

Participants will gain a deeper understanding of why a healthy environment is integral to maintaining the identity, culture, and livelihood of Aboriginal peoples. This course will enhance students' understanding of Aboriginal environmental stewardship and philosophy from an Aboriginal worldview.

Offered: Summer 19, Spring 18

Instructor: Sylvia McAdams <a href="mailto:smcadam@ualberta.ca">smcadam@ualberta.ca</a>

#### **EXARE 4653 - Community and Economic Development**

This course will introduce students to the current community and economic development of Indigenous communities from an Indigenous lens. Students will learn about the resilience of Indigenous people despite the current complex socio-economic realities, and the importance of partnerships and relationships to improve the well-being of First Nations peoples. Topics include corporate social responsibility, community governance structures, Indigenous business, and private corporate structures as they relate to community development.

Offered: Fall 19, Winter 19, Fall 19, Winter 18, Instructor: Patricia Makokis <a href="mailto:pmakokis@ualberta.ca">pmakokis@ualberta.ca</a>

#### **EXARE 4655 - Current Issues in Indigenous Relations**

Develop foundational knowledge to understand Canada and Alberta's colonial landscape and what it means to Indigenous and Non-Indigenous relations. Key concepts that will be discussed include treaties, colonialism, racism, reconciliation, and decolonization. Having developed an understanding of Canada's colonial landscape and how it continues to unfold and impact Indigenous and Non-Indigenous relations, students will be guided toward an in-depth understanding of what it means to be an ally, how we are all treaty people, and the unique roles and responsibilities that allies have in redressing and revitalizing the true spirit and intent of treaties in every day practices.

Offered: Spring 19, Winter 19, Fall 18, Spring 18, Winter 18

Instructor: Davina Roussell <u>davina@ualberta.ca</u>

#### EXARE 4656 - Understanding Indigenous/Canadian Relations through Visual Literacy

An introduction to concepts of visual literacy through local Indigenous perspectives. In this course, participants will critically address concepts of space making, cultural branding and the historical relationship between Indigenous peoples and Canadians through walks in Edmonton's river valley, circle dialogues and guest speaker presentations. Participants will learn how to think critically about ideas of land and community through story sharing, cell phone photography, land art, and medicine/story walks.

Offered: Fall 19, Spring 18

Instructor: Lana Whiskeyjack <a href="mailto:lwhiskey@ualberta.ca">lwhiskey@ualberta.ca</a>

# **EXARE 4657 - A Beading Dialogue: Beading and the Legacy of Indian Residential Schools**

In many Indigenous cultures, beading provides a vehicle for dialogue. In this course, participants will build basic beading skills while learning about the history of the Indian Residential Schools and their inter-generational effects. Participants will create a beaded story medallion based on their understanding of the Indian Residential Schools, reconciliation and the importance of visual arts.

Offered: Fall 19

Instructor: Lana Whiskeyjack <a href="mailto:lwhiskey@ualberta.ca">lwhiskey@ualberta.ca</a>

# EXARE 4658 - Painting Dialogue: An Introduction to Acrylic Painting and wahkohtowin

What does acrylic painting have to do with the TRC? The goal of this course will be to engage in intellectual, physical, emotional and spiritual awareness and growth through understanding the Truth and Reconciliation Commission calls to action while building and practicing basic acrylic painting skills. Participants will create a series of paintings based on self-reflections on their relationship with iniyiwak (people of this land) and their understanding of wahkohtowin.

Offered: Fall 19

Instructor: Lana Whiskeyjack <a href="mailto:lwhiskey@ualberta.ca">lwhiskey@ualberta.ca</a>

#### **EXARE 4659 - Exploring the History of Indigenous Arts and Artists**

There is no word for "art" in many Indigenous languages because art was, and is, culturally, a way of life. This course will introduce participants to a brief history of Indigenous artists and art practices, including drawing, watercolour, collage and mixed media. Through guided exercises, students explore different mediums, genres and practices from Indigenous perspectives.

Offered: Fall 19

Instructor: Lana Whiskeyjack <a href="mailto:lwhiskey@ualberta.ca">lwhiskey@ualberta.ca</a>

# EXARE 4651 - Aboriginal Laws, Lands and Current Industry Government Relations

This course will focus on the legal and policy principles as a guiding aspect of existing relationships between Aboriginal peoples, government and industry. Topics covered include: Federal and Provincial legislation, regulations and policies impacting Aboriginal-Industry relations and Aboriginal and Treaty rights. Participants will gain a deeper understanding of Aboriginal perspectives of law through a decolonized framework aimed at fostering positive relationships that move towards reconciliation.

Offered: Spring 19, Winter 19, Fall 2018

Instructor: Patricia Makokis pmakokis@ualberta.ca

#### **EXARE 4660 - Indigenous Leadership: from Transaction to Transformation**

This course explores Indigenous Leadership from a broad perspective including the impact of Colonial Legislation (Indian Act Election) on Indigenous Leadership practices. Traditionally, Indigenous leadership was inclusive, including women, children, and elders in decision making. Leadership practices today focus on elected leadership voices and decision making moving away form collective community based decisions. Today, Indigenous Nations, industry and various levels of Government interface. How those engagements occur can be impacted by how leadership is practices.

Offered: Fall 2018

Instructor: Patricia Makokis pmakokis@ualberta.ca

#### **Extension - Environmental Resource Management (EXERM):**

#### EXERM 4250 - Ecosystems & Environmental Management

Ecosystems are affected by everything we do. This course will introduce you to Alberta's major ecosystems and the effect of outside factors on them. Learn how these ecosystems develop, function, and are modified by the major industries in Alberta. You will also be introduced to environmental ethics and the need to consider them when making decisions that impact our environment. Completion of EXERM 4252 is strongly recommended

Offered: Winter 19, Winter 18

Instructor: Fariha Abedin <u>abedin@ualberta.ca</u>
Rational: recommended by Christie Schultz

#### **EXERM 4252 - Environmental Geology**

Environmental Geology is the study of the earth's environment from a geologic perspective. It explores the effect of humankind's activities on the surface environment. The earth's underlying formations impact much of what humankind does. Surficial and subsurface geologic formations effect our water use, water and subsurface pollution, and waste disposal options. This course will introduce you to the geologic formations in Alberta and how those formations present environmental problems and opportunities.

Offered: Fall 19, Fall 17

Instructor: Steven Pawley <a href="mailto:pawley@ualberta.ca">pawley@ualberta.ca</a> Rational: recommended by Christie Schultz

#### EXERM 4258 - Environmental Project Management

Addressing environmental impacts is a critical component of any project undertaking. A fundamental objective for project owners is to minimize the risk of regulatory and civil liabilities. This requires a meticulous approach to project planning, organization, implementation and documentation. This course provides an overview of key roles for the mentioned components in effective environmental project management. Participants will learn the essence for practical applications. Case examples and scenario acting will be used for illustration. This should be the final core course taken in the ERM Certificate program.

Offered: Winter 18

Instructor: David Ho <a href="mailto:dho2@ualberta.ca">dho2@ualberta.ca</a>
Rational: recommended by Christie Schultz

#### **EXERM 4260 - Environmental Law**

If your work impacts the natural environment, involves the development of natural resources, or addresses environmental health issues, it is important to have an understanding of the laws which regulate theses areas. This course is intended to assist participants in navigating through the complex and often confusing array of Federal, Provincial, common law, and environmental regulatory schemes by providing an introduction to these 4 key areas of law, which impact environmental/resource/health regulation in Canada - constitutional law, civil law, regulatory law and administrative law. Note: This course is not intended as an in-depth review of any specific legislation.

Offered: Fall 18, Fall 17

Instructor: Jason Unger unger1@ualberta.ca

#### **EXERM 4267 - Environmental Audits**

Environmental auditing is a management tool increasingly used by organizations to verify that the organization is meeting its environmental obligations. It is also an essential element of an environmental management system and a primary driver of continual improvement. This course will provide the student with the skills and knowledge to undertake effective environmental audits that will provide many benefits to their organization.

Offered: Winter 19, Winter 18

Instructor: Kevin Dunn kdunn@ualberta.ca

#### **EXERM 4268 - Environmental Impact Assessments**

This course will present the purpose for an environmental impact assessment, the process from initiation to completion of the EIA, and its place in the application for a major project. Assessment requirements detailed within provincial and federal legislation and regulations will be reviewed. Requirements and processes for completing a cumulative environmental assessment within the EIA will be described. Differences and similarities between assessments for projects falling under Alberta's Environmental Protection and Enhancement Act and the Canadian Environmental Assessment Act will be illustrated. Linkages among these Acts and other legislation in Alberta (Water Act, Public Lands Act) and Canada (Fisheries Act, Navigable Waters Protection Act) will be discussed. Requirements for public and Aboriginal consultation, and the means to gather stakeholder input into the EIA process and outcomes will be outlined. Discussion of the components of the EIA that may lead to approval conditions and requirements, and how to address these in a way that sets the stage for future corporate action and government oversight. Use of the EIA as a tool in the overall environmental management of the project will also be discussed.

Offered: Winter 19, Winter 18

Instructor: Judy Bennett jybennet@ualberta.ca

#### **EXERM4264 - Land Reclamation Fundamentals**

This course will cover concepts related to successful land reclamation through the effective application of soil and vegetative science principles. Topics for this course include: Land use, types of disturbances, regulations governing land reclamation, soil testing, handling and storage, site preparation, plant community ecology, vegetation selection and planting, monitoring, and determinates of success within reclamation. This course will also cover special considerations such as erosion, soil and plant pathogens, amendments, and weeds. Basic knowledge of soils and vegetation is recommended, but not required.

Offered: Fall 19, Fall 18

Instructor: Kelly Ostermann dosterma@ualberta.ca

#### EXERM4265 – Applied Vegetative Reclamation

This course covers the basic methods and materials for effectively using plants for erosion control, creation of wildlife habitat, restoration of plant communities, reconstruction of soil productivity and the rehabilitation of recreational landscapes. Topics include methods of plant establishment, seedbed preparation, factors affecting plant establishment, seeding rate, seed quality, and fertilizers.

Offered: Fall 19, Fall 18

Instructor: Ann Smreciu smreciu@ualberta.ca

#### **EXERM 4280 - Wetland Delineation, Classification, and Assessment**

Through lecture, classroom and field exercises, students can expect to learn methods to identify wetlands and delineate their boundaries based on indicators of vegetation, soils, and hydrology, in addition to conducting desktop delineations through aerial photo interpretation. Other topics to be covered include wetland classification, impact and assess reports, and relative-value assessments. Prior knowledge of soils and vegetation is helpful, but not required.

Offered: Fall 19, Fall 18

Instructor: Kristen Andersen <u>kristen5@ualberta.ca</u>
Rational: recommended by Christie Schultz

#### **EXERM 4284 - Applied Soil Fertility**

The course will address the relevance of soil fertility including the importance of soil fertility in plant growth and nutrient uptake by crops. The agronomic significance of soil physical, chemical, and biological properties as they pertain to soil fertility will be discussed. Topics will include major nutrients, as well as secondary and micronutrients, and corresponding fertilizers. The course will also examine soil fertility evaluation: soil testing; the backbone of soil fertility and problems soils (acid and saline soils). Soil management challenges including fertilizer application, water use efficiency, interactions amount nutrients, and economics of plant-nutrient use will be addressed.

Offered: Fall 19, Fall 18, Fall 17

Instructor: Rigas Karamanos karamano@ualberta.ca

#### EXERM4285 - Environmental Site Assessment & Management

This course is an introduction to common practices within the management of contaminated sites in Alberta. The three-part approach for the assessment management of contaminated sites will be covered including: Phase 1 Environmental Site Assessment, Phase 2 Environmental Site Assessment, and Risk Management Plans. Alberta Site Assessment standards and the Alberta Tier 1 and 2 soil and Groundwater Remediation Guidelines will also be covered. Additional topics will include differences between risk management and site remediation with examination of cost considerations within various site remediation components. Case studies will be used to provide a focus on contamination sources, characterization, transportation, and environmental fate in the environment.

Offered: Fall 19, Fall 18

Instructor: Sameh El Sayed selsayed@ualberta.ca

#### **EXERM 4286 - Remediation Technologies**

Contaminated sites represent a significant environmental liability in addition to their impacts on humans and the surrounding environment. If you deal with contaminated sites, it is crucial to be able to identify the various factors affecting the decision of choosing the appropriate remediation technology for each site. In this course you will learn about the remediation technologies currently available for handling contaminated sites. Description, applicability, advantages, limitations, time frame, potential health and safety and cost of various available technologies will also be studied.

Offered: Winter 20, Spring 19, Winter 18

Instructor: Sameh Elsayed <a href="mailto:selsayed@ualberta.ca">selsayed@ualberta.ca</a>

Rational: recommended by Christie Schultz. Focus of the course is on remediation of contaminated

sites

#### **EXERM 4297 – Soil Classification and Mapping**

This course focuses on principal Alberta soils, classification and mapping procedures, and interpretations of soil quality and capability assessment as applied to land reclamation.

Offered: Spring 19, Spring 18

Instructor: Konstantin Dlusskiy <u>dlusskiy@ualberta.ca</u>

Rational: recommended by Christie Schultz

#### **EXERM 4290 - Restoring and Creating Wetlands**

This course will cover the concepts, applications, planning procedures, and implementation strategies involved in the successful construction of wetlands that look and function like natural wetlands. Students can expect to learn about site selection, testing soil texture, selecting construction techniques, establishing designed hydrology and vegetation aspects, and working with heavy equipment operators. Topics in peatland restoration will also be covered. The course will be offered as a combination of mandatory hands-on experience in the field, in addition to classroom lecture.

Offered: Fall 19, Spring 19, Fall 17

Instructor: Kristen Andersen kristen5@ualberta.ca

#### EXERM 4291- Applied Hydrogeology in Alberta

The course will introduce the practice of hydrogeology as generally applied in Alberta. Three areas of hydrogeology will be explored, with emphasis on conditions in Alberta. These areas include:(1) Hydrogeological Site Assessment, (2) Groundwater Resource Evaluation and Management, and (3) Groundwater Monitoring. Topics will include principles and practices of contaminated site assessment, regulatory considerations, conceptual models, environmental risk management, and groundwater remediation. Methods of characterizing regional baseline hydrogeology, groundwater resource quantity and quality, and groundwater vulnerability will be covered, along with discussion of issues such as groundwater modelling, watershed management, groundwater-surface water interaction, and implications of climate change. Also considered will be the key elements of designing an effective groundwater monitoring program both on a local and a regional scale.

Offered: Spring 19, Spring 18

Instructor: Tannis Sharp tsharp@ualberta.ca

#### **EXERM 4301 - Contemporary Issues in Environment**

Due to the nature of the issues, the topic of this course will change from term to term depending on the specific interests of Faculty, or students, and according to the current issues facing in Environmental, Health and Safety.

Offered: Fall 19, Spring 19, Fall 17

Instructor: Fariha Abedin

Rational: recommended by Christie Schultz

#### **Extension - General Studies (EXGEN):**

#### EXGEN 4640 - Truth and Reconciliation: Indigenous--Settler-Ally Relations

The Truth and Reconciliation Commission of Canada invites all Canadians to advance the process of reconciliation through 94 calls to action. In this workshop, Indigenous scholars and allies invite teachers and learners to collectively consider how the next steps towards reconciliation may be informed by: the history of Indigenous-non-Indigenous relations; and by Indigenous worldviews on the environment, treaties, community, economic development and negotiations. The instructional approach is wholistic, using talking circles, smudge ceremonies, and Indigenous teachings to provide for inclusivity and safe teaching and learning.

Offered: Fall 2017

Instructor: Janice Mokakis <u>imakokis@ualberta.ca</u>

# EXGEN 4797- Water and Wastewater Pipeline Condition Assessment and Rehabilitation

This course will explore some of the most significant challenges facing the waster and waste water pipeline sector. Aging and failing pipes are prevalent across North America, and students in this course will learn of t available technologies and techniques for the inspection, monitoring, and rehabilitation of aging water pipes. Participants will gain insight into the process of rehabilitation, investigating both the benefits and limitations of existing technologies.

Offered: Winter 20, Winter 19, Winter 18
Instructor: Alireza Bayat <u>abayat@ualberta.ca</u>

#### **EXGEN 3363 - The Ethical Influencer**

In this workshop, participants will learn the skills, tools and strategy to help them create compelling digital content and better understand what makes a legitimate social media influencer.

Offered: Fall 2019, Summer 2019

Instructor: Linda Brown <a href="mailto:lbrown1@ualberta.ca">lbrown1@ualberta.ca</a>

#### **Extension - Global Leadership (EXGL):**

#### **EXGL 5002 - Global Organizations and Cultural Experience**

Through examining global leadership attributes and practices, organizational framework, communication styles and environmental and contextual influences students will identify some of the key approaches used in international organizations. Student will become aware of cultural filters and customs that influence communication and develop strategies for more effective personal and organization-wide growth.

Offered: Winter 20, Winter 19, Winter 18

Instructor: Devraj Hansdeh hansdah@ualberta.ca

#### **EXGL 5001 – Working Effectively in Culturally Diverse Settings**

In an increasingly multicultural workplace, working across cultures is an essential skill. Learn how behaviours and attitudes are influenced by the dynamics of geographical, organizational, and individual cultural values. Understand and appreciate the different ways in which people work and communicate from culture to culture. Begin practicing how to lead, work, communicate, and resolve conflict with people from diverse cultures in inclusive and create ways.

Offered: Fall 19, Fall 18, Fall 17

Instructor: Devraj Hansdeh <a href="mailto:hansdah@ualberta.ca">hansdah@ualberta.ca</a>

#### **Extension - Local Government (EXLGP):**

#### **EXLGP 8212 - Sustainable Communities**

Provides a brief introduction to land use planning theory, law, and processes. Environmental, economic and social dimensions of sustainability will be discussed using an integrated framework of various forms of community capital. Students will also examine governance and decision-making through the perspective of sustainability.

Offered: Winter 20, Winter 19, Winter 18
Instructor: Mary Beckie <a href="mailto:mbeckie@ualberta.ca">mbeckie@ualberta.ca</a>
Rational: recommended by Christie Schultz

#### **Extension - Applied Land Use Planning (EXLUP):**

#### **EXLUP 4104 - Environmental Review of Subdivision Applications**

Fosters an understanding of the meaning of environment, and the critical importance of the environment to humanity. At the provincial scale students learn, about the environmental provisions of Alberta's Municipal Government Act and its Subdivision and Development Regulations. These provisions form the basis of the environmental review of subdivision and development by planners and development officers. Students also learn about various pertinent environmental information resources including the Environmental Reference Manual for the Review of Subdivisions in Alberta, and the DRAFT Environmental Guidelines for the Review of Subdivisions in Alberta. Expert guest instructors give presentations on a variety of specific environmental topics, including development adjacent to steep valley slopes, river flooding and erosion, site contamination, groundwater, and identification and protection of aggregate resources. Each presentation involves both an overview of the environmental topics and case studies.

Offered: Fall 2017

Instructor: Richard Bramm rbramm@ualberta.ca

#### **EXLUP 4109 - Special Topics in Contemporary Planning Issues**

Due to the nature of the issues, the topic of this course will change annually and will reflect themes discussed throughout the field of planning and the environment. Contemporary and current planning/environmental planning issues, either municipal or regional, will be covered.

2019/2020 Topic: Creating Healthier Communities

Offered: Winter 2020, Fall 2019, Winter 2019, Winter 2018

Instructor: Ryan Hall <u>ryan2@ualberta.ca</u>

#### **EXLUP 8215 - Municipal Planning I**

Provides an introduction to municipal planning, with a particular emphasis on concepts and competencies used by planners involved in land use and development. The Alberta Land Use Framework (2008) will be examined, and relevant planning issues will be discussed. While examples are based on the Alberta context, the theory can be applied to a broad range of situations and environments. Ethics and values will be explored in relation to planning that will have a significant impact on society.

Offered: Fall 19, Spring 19, Fall 18, Spring 18, Fall 17

Instructor: Ryan Hall <u>ryan2@ualberta.ca</u>

#### EXLUP 8216 - Municipal Planning II

Building on core material covered in Municipal Planning I, students will learn about contemporary topics in planning through a combination of online modules, readings, and activities. A range of issues key to the modern urban planning context will be explored, including topics of new urbanism, challenging urban sprawl with smart growth concepts, analytical methods, basic urban design principles, business revitalization zones, and transportation planning. Students will have an opportunity to put theory into practice through assignments and activities that make use of case studies and real-world development scenarios.

Offered: Winter 20, Winter 19, Winter 18

Instructor: David Onishenko onishenk@ualberta.ca

#### **EXLUP 8222 - Rural Environments**

Examine the challenges and opportunities of rural land use planning in Canada with specific emphasis on rural Alberta. Student will explore and gain an understanding of the importance of healthy and vibrant rural communities in a local, regional and global context with respect to: the economy, environment, social and cultural capital; how planning policy, politics and participation approaches may differ in a rural context compared to an urban counterpart; and how regional and global policy frameworks will affect rural land use planning in the future.

Offered: Spring 2019, Spring 2018,

Instructor: David Onishenko onishenk@ualberta.ca

#### **Extension - Residential Interiors (EXRI):**

#### EXRI 3588 - Green Design

Green Design represents a transformation in the industry; where interior design can make a significant contribution to the development of environmentally sensitive buildings. This course provides students with the knowledge and skills necessary to meet client demands for greener and healthier interiors, without compromising the quality and integrity of their designs. Restricted to Residential Interior Certificate program students and Corequisite EXRI 4676

Offered: Fall 19, Fall 18, Fall 17

Instructor: Kimberly Chiles chiles@ualberta.ca

#### **Extension - School of Public Health (EXSPH):**

#### **EXSPH 2202 - Introduction to Environmental Health**

Introduces environmental health issues and scientific understanding of their causes in developed and developing countries. Examines the role of environmental factors (biological, chemical, and physical) and its importance in relation to other factors that affect health of a community. Provides case studies of how environmental factors are dealt with in practice; including methods and approaches for assessment, prevention, and control.

Offered: Winter 19, Winter 18

Instructor: Patrick Hanington <a href="mailto:pch1@ualberta.ca">pch1@ualberta.ca</a>

# Continuing Education Course List Sustainability Related Courses

#### **Extension - Aboriginal Relations Engagement (EXARE):**

#### **EXARE 4654 - Organizational Culture and Negotiation Preparedness**

This course will introduce students to the interface of corporate and Indigenous cultures. Students will be given an introduction to relevant federal/provincial policy, safety procedure(s) framework, and impact benefit agreements. This course will enhance students' understanding of intercultural differences when negotiating and the impact of these differences on negotiation strategies.

Offered: Winter 2018

Instructor: Gary Bosgoed <a href="mailto:gbosgoed@ualberta.ca">gbosgoed@ualberta.ca</a>

#### **Extension - Community Engagement (EXCES):**

#### **EXCES 1501 - Community Engagement: Contexts and Processes**

Key concepts in community engagement and the importance of collaboration in creating innovative solutions to social, economic, and environmental issues. Participants will become familiar with community engagement in many contexts and explore processes that promote sustainable relationships with diverse communities, including government, corporations, educational institutions, professions, non-profit and charitable organizations, community groups, media, Aboriginal communities, youth, interest groups, and other publics and stakeholders, as determined by student interest and experience.

Offered: Winter 19. Winter 18

Instructor: Sherry Ann Chapman sherryc@ualberta.ca

Rational: recommended by Christie Schultz.

#### **Extension - Environmental Resource Management (EXERM):**

#### **EXERM 4256 - Applied Hydrology**

Water has a role in the development of most human activities. This course will introduce the practice of surface water hydrology as generally applied in Alberta. Various land phase hydrologic processes will be described. Methods of development of intensity-duration-frequency curves for rainfall, estimation of rainfall at ungauged locations, stream flow measurement methods, flood frequency analysis, regional frequency analysis for estimating stream flows at ungauged locations and risk assessment in hydrologic design will be discussed. Approximate methods for estimating storm water storage requirements for urban development will be discussed. Various hydrologic and hydraulic modes that are used in the professional domain will be introduced. Upon completion of course, the students will have a general knowledge of various hydrologic processes that need be identified in addressing surface water hydrology related issues in Alberta, and will be able to perform basic calculations in addressing these issues. Completion of EXERM 4250, EXERM 4252 and EXERM 4307 is strongly recommended

Offered: Winter 20, Winter 19, Winter 18
Instructor: Manas Shome <a href="mailto:mshome@ualberta.ca">mshome@ualberta.ca</a>
Rational: recommended by Christie Schultz

#### **EXERM 4281 - Applied Soil Physics**

This course will introduce students to the basic concepts of applied soil physics, with an emphasis on the quantitative aspects of the subject matter. Students will learn about the basic physical aspects of both the solid and liquid phases of soils as well as how water is held by soils and how it moves through soils. The course will examine the link between the soil water regime and processes within the hydrologic cycle, with emphasis on infiltration and the soil physical properties affecting this key hydrologic process. Students will also understand some of the soil management challenges that involve soil physics and how to manipulate soils to enhance its physical properties.

Offered: Fall 18, Fall 17

Instructor: Dr. David Chanasyk chanasyk@ualberta.ca

Rational: recommended by Christie Schultz

#### **EXERM 4282 - Applied Soil Chemistry**

This course will introduce students to the soil principal reactive chemical constituents and their processes. Topics will include an introduction to the soil solid and liquid components (chemical composition, mineralogy, organic matter and soil solution); and description of important soil chemical processes and their relevance to environmental and agricultural applications (mineral stability and weathering, oxidation-reduction, surface adsorption and exchange, colloidal behaviour and soil acidity and salinity).

Offered: Winter 19, Winter 18

Instructor: Salim Abboud <u>abboud@ualberta.ca</u>
Rational: recommended by Christie Schultz

#### EXERM 4291 - Applied Hydrogeology in Alberta

The course will introduce the practice of hydrogeology as generally applied in Alberta. Three areas of hydrogeology will be explored, with emphasis on conditions in Alberta. These areas include:(1) Hydrogeological Site Assessment, (2) Groundwater Resource Evaluation and Management, and (3) Groundwater Monitoring. Topics will include principles and practices of contaminated site assessment, regulatory considerations, conceptual models, environmental risk management, and groundwater remediation. Methods of characterizing regional baseline hydrogeology, groundwater resource quantity and quality, and groundwater vulnerability will be covered, along with discussion of issues such as groundwater modelling, watershed management, groundwater-surface water interaction, and implications of climate change. Also considered will be the key elements of designing an effective groundwater monitoring program both on a local and a regional scale.

Offered: Spring 19, Spring 18

Instructor: Tannis Sharp <u>tsharp@ualberta.ca</u> Rational: recommended by Christie Schultz

#### EXERM 4269 - Pedology Field School

This field-study based course focuses on field diagnostics of soil properties and processes; soil descriptions, classification, and mapping; soil survey procedures; description of soil pits and landscapes; and hands-on field experience with application to industry standards. Mandatory field work is required to collect samples and data for further review in class. Prior knowledge of soil formation and classification is expected.

Offered: Spring 20

Instructor: Konstantin Dlusskiy@ualberta.ca

Rational: recommended by Christie Schultz

#### **Extension - Applied Land Use Planning (EXLUP):**

#### **EXLUP 4107 - Introduction to Municipal Economic Development**

Students will examine the municipal economic development process through an analysis of the objectives, key players, and program options. The objective will be to have an understanding of the relationship between community and economic development and to be able to recognize the key issues, while looking at various alternatives and current trends.

Offered: Winter 20

Instructor: Michael Brown mgbrown@ualberta.ca

#### **EXLUP 8217 - Planning Law**

Examines planning law with specific consideration of Alberta legislation and case law; particularly, land use bylaws, planning documents, and the roles of planning and development authorities. Legal aspects of the preparation of land use planning documents, issues of inter-municipal planning, subdivision and condominium approvals, effective and enforceable development agreements, environmental considerations in land use and planning, enforcement of land use bylaws, and development permits will also be explored. Valuable insights will be learned about subdivision and development appeals, and in making presentations before Councils and other planning and development authorities.

Offered: Winter 20, Fall 19, Winter 19, Fall 18, Winter 18, Fall 17

Instructor: Jeneane Grundberg jeneane@ualberta.ca

#### **EXLUP 8219 - Urban Environments**

While many in the city-building professions often focus on the physical form of urban areas, the built environment can be seen as a physical manifestation of a variety of interconnected systems. A range of systems that influence how cities develop, including the natural, political, economic and social systems will be discussed. Over time, these systems have had varying levels of influence on the built form of the city. These interconnections and ebbs and flows of influence will be investigated using a combination of theory, history and case study analysis. A walking site tour in Edmonton will be included to analyze how these interrelated systems have influenced and were influenced by the physical form of that urban area. Participants will walk away with a more comprehensive understanding of city development and a new understanding of the interconnections of systems in Canadian cities today.

Offered: Spring 20, Fall 19

Instructor: Gregory Mackenzie <a href="mailto:gmackenz@ualberta.ca">gmackenz@ualberta.ca</a>

#### **Extension - Occupational Health and Safety (EXOS):**

#### EXOS 4634 - Human Rights: Workplace Health and Safety

Human Rights Legislation and Safety Legislation do not always work harmoniously together. When conflict occurs, one must be careful to achieve the safety objective with a minimal impact to fundamental human rights. This seminar will discuss the major areas of conflict including pre-employment medical testing and medical information, duty to accommodate disabilities, provision of programs in different languages, drug and alcohol testing, and PPE and religious practices. Also, this seminar will acquaint you with the Human Rights Process and discuss strategies to ensure that you and your company are complying with the legislation.

Offered: Fall 19, Fall 18, Winter 18, Fall 17 Instructor: Mark Greene magreene@ualberta.ca

#### **EXOS 4601 - Fundamentals of Disability Management**

The need to control costs arising from occupational injury or disease has taken a greater priority in today's financial reality. Human rights issues, individual rights, employer responsibilities and other contemporary issues further complicate these concerns. This course is designed to help students understand the relationship of these complex issues and develop a basic strategy for managing disability claims.

Offered: Winter 19, Spring 18, Winter 18, Fall 17 Instructor: Erin McFadden <u>mcfadden@ualberta.ca</u>

#### EXOS 4642 - Workplace Wellness: Culture and Leadership

Building and fostering a culture of health and wellness enables organizations to support and enhance the satisfaction motivation, and productivity of its employees. This course will help to empower managers, HR, and OHS professionals with evidence-based strategies and resources to create a workplace wellness-focused culture, and to lead wellness initiatives with a well-articulated vision for wellness. Course topics will cover adaptive leadership, wellness policy development, wellness communication, initiative implementation, and incentive management.

Offered: Winter 20, Spring 19, Spring 18
Instructor: Shelly Bischoff <u>sbischof@ualberta.ca</u>

#### **Extension - Residential Interiors (EXRI):**

#### EXRI 3499 - Universal Design

Learn the principles of Universal Design or "inclusive." You will come to think of design in new ways by becoming aware of the impact universal design has had on the past, present, and future of residential housing design. We will focus on maximizing utility with the ultimate goal of looking at design projects that accommodate people's needs regardless of age, ability, or circumstance.

Offered: Summer 19, Summer 18

Instructor: Ron Wickman rwickman@ualberta.ca

#### **Extension - School of Public Health (EXSPH):**

#### **EXSPH 2200 - Introduction to Health Policy and Management**

The course provides an overview of the development, organization, financing, delivery and management of the Canadian health system. Students will examine the health care system's central assumptions, the distribution of power and authority within the system, current debates about the system's future, and the potential for political action. Recognizing that the existing health care system is the result of power struggles and contestable political choices, the lectures and readings will encourage students to think critically about health care policy in Canada. By the end of the course, students should be formulating their own opinions about future directions for health care.

Offered: Spring 18, Fall 17

Instructor: Stephanie Montesanti montesan@ualberta.ca

#### **Extension - Teaching in Learning (EXTL):**

#### **EXTL 5709 - Cultural Differences in International Higher Education Contexts**

This course will examine the incidence and effect of cultural differences between and among instructors and students in higher education, and the need to take these into account for the purpose of building inclusive learning environments.

Offered: Fall 18, Fall 17

Instructor: Jennifer Foote jfoote@ualberta.ca

#### **Faculty of Native Studies:**

#### NS103 - Canadian Indigenous Language Immersion for Adult Beginners

An introduction to a Canadian indigenous language in an immersion context. No prior knowledge of the focus language is assumed. Note: This course cannot be used as a substitute for NS 152 nor does it prepare the student for NS 105. A student completing this course may still earn credit in NS 152 at a later date. Not for credit in Faculty of Native Studies degree programs.

Offered: Summer 19, Summer 18

Instructor: Professor Dorothy Thunder <a href="mailto:dthunder@ualberta.ca">dthunder@ualberta.ca</a>