



## Academic Programs Committee of Council

### University Course Challenge

#### Special posting: July 2020

The following types of curricular and program changes are approved by the University Course Challenge -- additions and deletions of courses, lower levels of study and program options; straightforward program changes; and curricular changes which affect other colleges.

#### Contents include submissions for approval from the following:

College of Graduate and Postdoctoral Studies

**Approval:**      Date of circulation: July 10, 2020  
                            Date of effective approval if no challenge received: July 31, 2020

#### Next scheduled posting:

The next scheduled posting will be August 17, 2020, with a submission deadline **August 13, 2020**. Urgent items can be posted on request.

Please direct challenges to both of the following: [seanine.warrington@usask.ca](mailto:seanine.warrington@usask.ca) in Registrarial Services and [amanda.storey@usask.ca](mailto:amanda.storey@usask.ca) in the Office of the University Secretary.

## College of Graduate and Postdoctoral Studies, University Course Challenge – July 2020

Approved by CGPS June 29, 2020

### **New Course Proposals**

#### **ENVS 841.3: Renewable Energy Systems**

This course introduces tools to assess renewable energy generation, site-specific application, and project development using in-depth case studies that require multi-disciplinary perspectives.

Instructor: Andrea Kraj, PhD, PEng

Rationale: This course will be required course for the professional Masters of Sustainability in the Energy Security field of study This is a foundational course for that stream, providing an understanding of renewable energy technology. It addresses the important issue of transitioning to a sustainable energy future, particularly in northern, Indigenous, and remote regions.

Prerequisite: Admission to a graduate program in the School of Environment & Sustainability or permission of the instructor

#### **ENVS 843.3 Energy Project Finance**

This introductory course provides basic knowledge of tools to organize, assess and monitor financial aspects of energy projects: project management, design, construction and timeline planning, financing options and regulatory requirements. Case studies will be used to understand the complex multidisciplinary perspectives of energy projects while developing an individual course project.

Instructor: Andrea Kraj, PhD, PEng

Rationale: Project finance has become a key financing technique for renewable energy development. An understanding of financial structures and methods is foundational to operate in the energy sector. Power project finance (which is dominated by renewable energy) has become a dominant industrial sector.

Prerequisite: Admission to a graduate program in the School of Environment & Sustainability or permission of the instructor

#### **ENVS 844.3: Community Energy Planning**

This course introduces systems and best practices for holistic community energy project development, with emphasis on northern, remote, and Indigenous communities. Learning from case studies, students will develop an individual community energy plan.

Instructor: Andrea Kraj, PhD, PEng

Rationale: Students will be introduced to sources of renewable energy for heat and power and how they can support sustainability, energy and greenhouse gas management goals for local communities.

Prerequisite: Admission to a graduate program in the School of Environment & Sustainability or permission of the instructor

#### **ENVS 850.1: Systems Thinking for Sustainability**

The purpose of this class is to provide foundational knowledge of the concepts, components, and dynamics of complex systems. Emphasis will be placed on the interaction feedback mechanisms and emergence across systems of interacting elements. Graphical representations will be used to illustrate the value of systems thinking in sustainability problem-solving.

Instructor: Graham Strickert, PhD

Rationale: This course, systems thinking, is key to understanding increased complexity facing practitioners in sustainability. The course offers professional key concepts and frameworks that help

them understand components of systems and their interactions in order to help solve complex problems. Systems thinking will provide the concepts, frameworks, and tools to empower professionals in sustainability problem solving.

Prerequisite: Admission to a graduate program in the School of Environment & Sustainability or permission of the instructor

### **ENVS 882.2: Foundations of Governance for Sustainability**

This course explains institutions and processes of governance and policy making in Canada and internationally relevant to sustainability transitions, including branches of government, federalism, policy communities and policy networks, and roles of key actors at multiple scales.

Instructor: Douglas Clark, PhD

Rationale: This course provides foundational knowledge about government and governance systems that influence community energy and regenerative sustainability initiatives. Students must understand the institutional structures that shape decision making, the roles of state and non-state actors, and the instruments used to implement or to oppose new policy and project initiatives.

Prerequisite: Admission to a graduate program in the School of Environment & Sustainability or permission of the instructor

### **ENVS 885.1: Practical Law for Project Development**

This course introduces students to Canadian law and its practical application as it applies to developing community-led sustainability projects, including renewable energy development. Topics include contracts, power-purchase-agreements, and dispute resolution.

Instructor: Andrea Kraj, PhD, PEng

Rationale: This course introduces concepts of law for a broad overview of areas relevant to developing sustainability related projects. It is intended to provide practical, rather than theoretical knowledge with sufficient background to allow the student to identify legal issues in a simple and easy to follow format that can be applied immediately.

Prerequisite: Admission to a graduate program in the School of Environment & Sustainability or permission of the instructor

### **ENVS 886.2: Building Understanding in the Age of Reconciliation**

This introduction to the importance of reconciliation and renewing relationships with Indigenous peoples includes a special emphasis on the importance of recognition of rights, respect, cooperation and partnership. Success stories, challenges and lessons learned will be explored in understanding the pathway toward reconciliation and what this means for sustainability.

Rationale: This course is designed for students in professional programs who will be working in, for, or with Indigenous communities, governments, or businesses and who have an interest in acquiring a basic familiarity with Indigenous/non-Indigenous relationships and how they relate to energy security and regenerative sustainability. This course offers specific, practical advice that inform social and economic relationships between Indigenous and non-Indigenous organizations, businesses, and communities, and will be taught by an Indigenous practitioner.

Prerequisite: Admission to a graduate program in the School of Environment & Sustainability or permission of the instructor