

Course Description

Nations around the world have identified innovation as being the cornerstone of economic competitiveness and critical to everything from job creation to environmental sustainability. Comparatively little effort, however, has been made to develop the research capabilities, highly qualified personnel, and commercial environments necessary to promote northern economic and social development.

Circumpolar Innovation examines the manner in which scientific and technological innovation, or the commercialization of technology-based products and services, is shaping the Circumpolar world. This course looks at the global role of scientific and technological (S&T) innovation and examines ways in which new technologies and new commercial processes can have a beneficial impact on the North.

Modules

Starting on February 23 and running until May 5, this online program is divided into the following 10 modules:

1. Innovation in the Circumpolar World

Students are introduced to the speed, nature and, extent of scientific and technologically-driven change in the Circumpolar World over the last 50 years. Is there a technological “innovation divide” between North and South?

2. National Innovation Strategies

This module compares and contrasts the efforts being made by different governments to develop and implement regional and national innovation strategies. It asks, what is the role of government, business, and universities in these strategies? Where does the North fit within these strategies?

3. Innovation that Affects the Individual

This module explores the role of innovation in changing Circumpolar realities at the micro (or family) level. What impact do S&T innovations have on the quality of life in the North? What are the intended and unexpected consequences as a result of integrating new innovation?

4. Building an Innovation-based Economy

How do you create, support, and sustain a Northern innovation economy? The importance of regional investments in key infrastructure areas, such as transportation systems, education and training, business incubators and commercialization offices, will be reviewed in this module.



Photo credit: Emmy Neuls

Circumpolar Facts

FACT #1: Did you know that thirty years ago climate change, Indigenous empowerment, regional autonomy, and rapid resource development were just emerging as prominent themes in the evolution of the Far North?

FACT #2: Did you know that Finland, a country in the Circumpolar North, is ranked 1st in global competitiveness in health and primary education?

FACT #3: Did you know that 30 per cent of the world's untapped oil reserves are located in the Arctic Circle and that the ice of the Arctic contains around 10 per cent of the world's fresh water?

“In northern Norway, innovation is key and accessing knowledge is the foundation. Since I am working on an innovation strategy for my local county, I’m looking forward to learning more about this important topic, especially what’s happening in other regions.”

- Raimo Valle, Special Adviser,
Troms County Council, CEOs office



5. Creating Innovation Eco-Systems

This module examines the ways in which governments and local/regional business organizations support and sustain entrepreneurship related to the innovation economy in the North. It presents case studies of several northern communities that have succeeded, as well as the continuing salient barriers to success.

6. The future of Work in the Arctic

The future of work in the North is very uncertain. It's filled with opportunities, as well as vulnerabilities. In this module, students will examine ways in which S&T innovations are changing the nature of work in the North, both by eliminating jobs and by creating opportunities for new forms of work and business development.

7. Making S&T Work for the Circumpolar World

The North has unique needs and conditions. This module considers the question, "how do you make S&T work for the North?" Specifically, it delves into policies and strategies needed in the North to promote an innovation-based society.

8. Anticipating Change: How Might S&T Innovation Alter Life in the Circumpolar North

How can the North approach the prospect of major technological change? This module reflects on the possibilities for transformative change in the Circumpolar world and what that might mean for Northern people.

9. Looking Forward: The Circumpolar World in 2050

In this module, students contemplate the changing nature of the Circumpolar World in an S&T enabled environment. It will look at some of the more dramatic and potentially transformative technologies under development.

10. Policy Options for Circumpolar Innovation

This course concludes with considering the policy and program options available to northern governments and peoples as they seek to accelerate improvements in northern quality of life associated with S&T.

Registration Information

This course is open to all those with an interest in issues affecting the circumpolar world, regardless of level of education or disciplinary background.



To sign-up for this **free, online course**, visit:

<https://www.canvas.net/browse/saskatchewan/courses/circumpolar-innovation>



Photo credit: John Major

About Ken Coates, Instructor

Ken Coates is Canada Research Chair in Regional Innovation at the Johnson-Shoyama Graduate School of Public Policy, a provincial school with campuses at the University of Saskatchewan and the University of Regina.

Raised in the Yukon, with a B.A. (history) from UBC, an M.A. (history) from Manitoba, and a Ph.D. (history) from UBC, Ken has worked at universities across Canada and in New Zealand. He was the Founding Vice-President (Academic) of the University of Northern British Columbia and held administrative posts at the University of Waikato (New Zealand), University of New Brunswick at Saint John, University of Saskatchewan, and University of Waterloo. His co-authored work, *Arctic Front*, won the Donner Prize in 2009. He was recognized by the Canadian Society for Civil Engineering for his work on the history of the Alaska Highway and has received awards from the Manitoba Historical Society, the BC Historical Society, and the Yukon Historical and Museums Association. Ken is the President of the Japan Studies Association of Canada. His research focuses on Aboriginal rights, science and technology policy, and northern development.

"Scientific and technological innovations are changing the world right in front of our eyes and there is no place that is experiencing this more directly and more dramatically than the Circumpolar World."

- Ken Coates