Overview

In this course we will examine together the linkage between science and society. How science can address the key challenges in our society and how in turn society impacts how science is conducted. We will examine basic scientific theories and concepts and highlight the application and interpretation of science in the context of popular media and policy. Since policies on issues relevant to human health and our environment are informed by the work of scientists, we want to establish a common ground of understanding about how science is conducted, how knowledge changes, and we can be better consumers of scientific information.

Learning outcomes

- Engage in constructive, evidence-based discourse on contemporary scientific topics (scientific communication).
- Gain comfort in interpreting scientific calculations and data (numeracy) used to support discussions.
- Develop familiarity with contemporary scientific issues, the concepts they are founded on, and the conceptual research behind them.
- Develop and practice the skill of communicating science in different formats: oral, written, graphic, or other in order to produce a document that is applicable within your field of study.

Prerequisites

This course is open to students in all faculties registered in level II or above; there are no prerequisite courses.

Evaluation

15% Group presentation (case study based on Module 1).
30% Three case study based tests (Based on Module 2-4, each worth 15%, best 2/3).
30% Participation in online discussion groups and in-class attendance.
25% Final project in which students select any format for communicating a scientific idea of their choosing (essay, oral, graphic, research poster - something that reflects their interest and background); Presentation may occur at an end of year in-person or web-based Symposium.

Course Materials

No required textbook.
Course resources provided through online discussion platform.

Calendar

Each week will consist of 1 or 2 lectures (Monday and Wednesday 8:30am-9:20am), one tutorial, and online discussions.

Week 1:
What is science? History of science.

Weeks 2 though 12:
Five 2-week long modules, each associated with online discussions and featuring guest lecturers.

Module 1 ● Ocean vs. Space Exploration
Module 2 ● Antibiotic Resistance
Module 3 ● GMOs and Dietary Choices
Module 4 ● Artificial Intelligence
Module 5 ● Students Select Module Topic

Please note this is a tentative outline as of June 2017 – slight modifications may occur.