

Institute for Resources, Environment and Sustainability 4<sup>th</sup> Floor 2202 Main Mall Vancouver, BC V6T 1Z4 www.ires.ubc.ca

## RES 500D: Expertise under fire. Navigating the divide between scientific practice and science studies

Instructor: Gunilla Oberg, professor at the Institute for Resources, Environment and

Sustainability, UBC, Vancouver. Email: goberg@ires.ubc.ca

Day/Time: Wednesdays 9:00-12:00pm PST, WT1 2020/21

Location: On-line

Enrollment: Graduate students that either conduct natural science studies or study

scientific practices (or advanced undergraduates with instructor approval

and completed G+PS form)

## **Description**

Scientific expertise is under fire. There is an urgent need for scientists and science scholars to jointly grapple with the attacks on science by populist politicians who claim that expertise is elitist and a threat to democracy. In this course, students will jointly explore how science experts can support democracy without turning democracy over to experts.

Science students will grapple with the role of value-judgments in science and how it plays out in their own field of research.

Humanities students studying the scientific enterprise will grapple with the communication barrier between science studies and the scientific practice.

Through the use historic and contemporary cases, students will work in mixed groups to jointly seek ways to fruitfully navigate the divide between the two communities to find ways to appreciate the social elements of science while seeking a constructive way out of the post-truth quagmire.

Background: Science studies have raised questions about the role of expertise in a democracy. Who counts as an expert? Who should be at the table? It is well documented that scientists on opposite sides of a policy-relevant scientific controversy commonly perceive the other side as biased but see themselves as objective. More data and rigorous analysis rarely resolve such conflicts, yet the expectation is that it is possible to reach consensus. This expectation hinges on the idea that the scientific enterprise is free of values and that science is a deliverer of irrefutable facts. Value-judgments are a necessary part of rigorous science because 100% certainty will never reign. Consensus is therefore not always possible and probably not even desirable. Yet, little is known about how to sensibly navigate this terrain.