Faculté des sciences sociales | Faculty of Social Sciences

uOttawa

École supérieure d'affaires publiques et internationales
Graduate School of Public and International Affairs

COURSE OUTLINE

ISP5101: DECISION-MAKING AT THE INTERFACE OF SCIENCE AND POLICY
FALL 2106

Patrick Fafard

Class schedule:	Wednesday 11h30-14h30 (or as otherwise agreed to by the students and the instructor)
Professors' office hours:	MON, 16h00-17h15, FSS 6030 TUES, 11h30-12h30, FSS 6030
E-mail:	patrick.fafard@uottawa.ca
On virtual campus:	No

OFFICIAL COURSE DESCRIPTION

This course explores a number of critical issues in the design and implementation of science (or, more generally, evidence)-based policy. Topics will include: the nature of scientific evidence; who has standing in the provisioning of scientific evidence; the science and non-science of risk assessment; ethical dimensions of policy design and implementation; the role of science in policy design and implementation; the policy making process; and science policy performance evaluation.

GENERAL COURSE OBJECTIVES

The course focuses on two broad sets of issues. First, we will consider "science for policy" that is to say the role that scientific evidence does and does not play in the making of public policy. Second, we will consider "policy for science" that is to say the policies and programs that governments adopt to encourage, shape and otherwise influence scientific research, both basic and applied, including efforts to encourage

science-based economic innovation. While the focus is on Canada and the federal government, reference will be made to other jurisdictions as well.

At the end of the semester, students should be able to describe and discuss, in a critical and sophisticated manner, the role that scientific evidence plays in the policy making process and the efforts by governments, notably the Government of Canada, to promote science, research and innovation. In particular, they should be able to offer a nuanced and critical account of the notion of evidence-based or, as some prefer, evidence-informed policy making. Equally, they should be able to describe in a general way the main issues associated with government support, financial and otherwise, for science, research and development.

In addition to the acquisition of knowledge and the development of critical reading skills, the course also seeks to help students develop some of the analytical and writing skills that they will find essential in the workplace. Accordingly, as part of the course, students will be challenged to hone their research and writing skills.

TEACHING METHODS

Because of the small size of the class, the course will be a blend of a regular graduate seminar and a reading course. We will meet approximately seven times over the course of the term. As well, students are expected to attend, at no cost, the Canadian Science Policy conference November 8-10, 2016 here in Ottawa.

ASSESSMENT METHODS

Careful and critical reading of the assigned materials and attendance and active participation the seminars are required to successfully complete the course.

Evaluation format	Weight	Deadline
Active Participation	25%	
Critical evaluation of readings (3 X 10%)	30%	September 21st, October 5th, October 19th
Individual research paper		November 21st
- Research question and preliminary outline and biliography (text AND presentation)	10%	October 19th
- Final paper	35%	December 6th at 5:00pm by Email to the instructor

CLASS PARTICIPATION

The success of a graduate course depends in good part on the active participation of students. In this perspective, students are **required to be present at each class** and they must come prepared to engage in class discussions, having completed the mandatory readings and given some thought to the issues to be discussed in class.

CRITICAL EVALUATION OF READINGS

On **three o**ccasions you will be required to submit, at the beginning of class a short, two page critical evaluation of what you have read. This evaluation can take many forms. The emphasis can be, for example, on comparisons and contrasts between readings. Alternatively or in addition, it can be drawn from reviews of the book in question; or it can be an attempt to apply what you have read to an empirical case that you are familiar with. Guides to critical reading can be found here, here and here.

INDIVIDUAL RESEARCH PAPER

You are required to write a research paper for this course. It may be useful to develop this paper with your thesis/major research paper in mind (e.g., the paper for this course is a draft section or chapter).

This assignment is in two parts. The first part requires you to formulate a research question and draft a preliminary outline and bibliography. You will make a short (approx. 5 – 10 minutes) presentation of your question and outline in class on October 19th. The goal of this first part is to require you to get started early on your research paper and to create an opportunity for critical and, one hopes, helpful feedback and suggestions. This research questions/outline/bibliography is worth 10% of your final grade for the course. The second part is the final version of the paper prepare following the outline of your proposal. The paper should be between 5500 – 6000 words, (double-spaced, 12 point Times Roman) and include a bibliography (non-annotated). The research paper is worth 35% of your grade and is due December 6th at 5:00pm by email to the instructor.

COURSE TEXTS

Pielke Jr., Roger A. 2007. *The Honest Broker: Making Sense of Science in Policy and Politics*. Cambridge University Press. (also on Library reserve)

Cairney, Paul. 2016. *The Politics of Evidence-Based Policy Making*. London: Palgrave Macmillan.
This book is available online at the UOttawa Library and from Amazon, etc. It is also available at no cost on the author's website here.

Biss, Eula. 2015. *On Immunity: An Inoculation*. Minneapolis, Minnesota: Graywolf Press. (also on Library reserve)

Doern, G. Bruce, and Michael J. Prince. 2012. *Three Bio-Realms: Biotechnology and the Governance of Food, Health, and Life in Canada*. Toronto; Buffalo, [NY]: University of Toronto Press. (also on Library reserve)

Doern, G. Bruce, David Castle, and Peter W. B. Phillips. 2016. *Canadian Science, Technology, and Innovation Policy: The Innovation Economy and Society Nexus*. Montreal: McGill-Queen's University Press.

Policy on language quality and late submissions

Class attendance is necessary to successfully complete this course.

You will also be judged on your writing abilities. It is recommended to take the appropriate measures to avoid mistakes. You will be penalized between 5% and 15% at the professor's discretion.

Late submissions are not tolerated. Exceptions are made only for illness or other serious situations deemed as such by the professor. University regulations require all absences from exams and all late submissions due to illness to be supported by a medical certificate. The Faculty reserves the right to accept or reject the reason put forth if it is not medical. Reasons such as travel, work and errors made while reading the exam schedule are not usually accepted.

In the event of an illness or related complications, only the counseling service and the campus clinic (located at 100 Marie-Curie) may issue valid certificates to justify a delay or absence.

Late submissions of written work will not be accepted. Late submissions will be awarded a failing grade.

We advise you to notify your professor as soon as possible if a religious holiday or event forces your absence during an evaluation.

Detailed Course Schedule and Readings

September 7 Introduction

Introductions, discussion of our research interests and review of course outline.

September 14 Individual Reading

September 21 Policy for Science 1: the role of scientists in policy making

Pielke Jr., Roger A. 2007. *The Honest Broker: Making Sense of Science in Policy and Politics*. Cambridge University Press.

September 28 Individual Reading

October 5 Policy for Science 2: Evidence-based Policy Making

Cairney, Paul. 2016. *The Politics of Evidence-Based Policy Making*. London: Palgrave Macmillan.

Oliver, Kathryn, Simon Innvar, Theo Lorenc, Jenny Woodman, and James Thomas. 2014. "A Systematic Review of Barriers to and Facilitators of the Use of Evidence by Policymakers." *BMC Health Services Research* 14 (1): 2. doi:10.1186/1472-6963-14-2.

Oliver, Kathryn, Adam Wellstead, and Paul Cairney. 2015. "Policy Advice: Irked by Naivety about Policymaking." *Nature* 527 (7577): 165–165. doi:10.1038/527165e.

Evidence and Policy: A very selective list of resources

Fafard, P. 2008. "Evidence and Healthy Public Policy: Insights from Health and Political Sciences." Montreal and Ottawa: National Collaborating Centre on Healthy Public Policy / Canadian Policy Research Networks. http://www.ncchpp.ca/docs/FafardEvidence08June.pdf.

Fafard, Patrick. 2012. "Public Health Understandings of Policy and Power: Lessons from INSITE." *Journal of Urban Health* 89 (6): 905–14. doi:10.1007/s11524-012-9698-2.

Greenhalgh, Trisha, and Jill Russell. 2009. "Evidence-Based Policymaking: A Critique." *Perspectives in Biology and Medicine* 52 (2): 304–18. doi:10.1353/pbm.0.0085.

Greenhalgh, Trisha, and Sietse Wieringa. 2011. "Is It Time to Drop the 'knowledge Translation' Metaphor? A Critical Literature Review." *JRSM* 104 (12): 501–9. doi:10.1258/jrsm.2011.110285.

Head, Brian W. 2008. "Three Lenses of Evidence-Based Policy." *Australian Journal of Public Administration* 67 (1): 1–11. doi:10.1111/j.1467-8500.2007.00564.x.

———. 2010. "Reconsidering Evidence-Based Policy: Key Issues and Challenges." *Policy and Society* 29 (2): 77–94. doi:10.1016/j.polsoc.2010.03.001.

Liverani, Marco, Benjamin Hawkins, and Justin O. Parkhurst. 2013. "Political and Institutional Influences on the Use of Evidence in Public Health Policy. A

Systematic Review." Edited by Gemma Elizabeth Derrick. *PLoS ONE* 8 (10): e77404. doi:10.1371/journal.pone.0077404.
Newman, Joshua, Adrian Cherney, and Brian W. Head. 2015. "Do Policy Makers Use Academic Research? Reexamining the 'Two Communities' Theory of Research Utilization." *Public Administration Review*, October, n/a – n/a. doi:10.1111/puar.12464.
Oliver, Kathryn, Theo Lorenc, and Simon Innvær. 2014. "New Directions in Evidence-Based Policy Research: A Critical Analysis of the Literature." *Health Research Policy and Systems* 12 (1). doi:10.1186/1478-4505-12-34.
Smith, Katherine. 2013. *Beyond Evidence Based Policy in Public Health: The Interplay of Ideas*. The Interplay of Ideas. Palgrave Macmillan.
Smith, Katherine Elizabeth. 2007. "Health Inequalities in Scotland and England: The Contrasting Journeys of Ideas from Research into Policy." *Social Science & Medicine* 64 (7): 1438–49. doi:10.1016/j.socscimed.2006.11.008.

October 12 Individual Reading

October 19 Part 1: Presentation and Discussions of Research Papers

Part: 2: Public Trust in Science and the Politics of Risk

Biss, Eula. 2015. *On Immunity: An Inoculation*. Minneapolis, Minnesota: Graywolf Press.
Kiss, Simon. 2014. "Where Did All The Baby Bottles Go? Risk Perception, Interest Groups, Media Coverage and Institutional Imperatives in Canada's Regulation of Bisphenol A." *Canadian Journal of Political Science* 47 (04): 741–65. doi:10.1017/S0008423914001127.

See also:

Gauchat, G. (2011). The cultural authority of science: Public trust and acceptance of organized science. *Public Understanding of Science, 20*(6), 751-770. doi:http://dx.doi.org/10.1177/0963662510365246
Lang, John T. 2013. "Elements of Public Trust in the American Food System: Experts, Organizations, and Genetically Modified Food." *Food Policy* 41: 145-154. doi:http://dx.doi.org/10.1016/j.foodpol.2013.05.008. http://search.proquest.com/docview/1541993985?accountid=14701.
Montpetit, Éric. 2008. "Policy Design for Legitimacy: Expert Knowledge, Citizens, Time and Inclusion in the United Kingdom's Biotechnology Sector." *Public Administration* 86 (1): 259–77. doi:10.1111/j.1467-9299.2007.00698.x.

October 26 Reading Week

November 2 Science Policy in Canada – An Introduction

Doern, G. Bruce, David Castle, and Peter W. B. Phillips. 2016. *Canadian Science, Technology, and Innovation Policy: The Innovation Economy and Society Nexus*. Montreal: McGill-Queen's University Press.

Canada. Canada's Fundamental Science Review. (website)

Findlay and Dodd 2015. *"Briefing Binder" Science and Technology Chapter*. Mimeo.

Available from the instructor.

Selected reports and studies on science, research and innovation in Canada

Paul Dufour (2015). « Federal science, technology, innovation strategy 'mostly stale air » *The Hill Times Online*, January 22, 2015.

P. Dufour 2013. "Canada" in *UNESCO, UNESCO Science Report: Towards 2030*. (Paris: UNESCO).

Science, Technology and Innovation Council (STIC) (2015), *Canada's Innovation Challenges and Opportunities*.

Canadian Council of Academies (2014) *Science Culture: Where Canada Stands*. Expert Panel on the State of Canada's Science Culture

National Advisory Board on Science and Technology (1995) *Healthy, Wealthy and Wise: A Framework for an Integrated Federal Science and Technology Strategy*;

Government of Canada (2014) *Seizing Canada's Moment: Moving Forward in Science, Technology and Innovation*

Canadian Council of Academies, *Innovation and business strategy: why Canada falls short*.

Jenkins, T.; Dahlby, B.; Gupta, A.; Leroux, M.; Naylor, Robinson, D. and R. (2011) *Innovation Canada: a Call to Action. Review of Federal Support to Research and Development. Report of Review Panel*

Royal Society of Canada (2015) *Strengthening government by strengthening scientific advice: fully realizing the value of science to Canadian society*. RSC Position Paper, May 2015.

Dillan Theckedath (2012), The Business of Innovation in Canada : Challenges and Reponses. (Ottawa : Library of Parliament).

Daniel Munro (2015). Running on Empty : Canada's Persistent Business R&D Weakness. (Ottawa : Conference Board of Canada).

November 9 **Canadian Science Policy Conference**

November 16 **Part 1: Reflections on the Canadian Science Policy Conference**

Part 2: Science Policy in Canada – the case of biotechnology

Montpetit, Éric. 2011. "Scientific Credibility, Disagreement, and Error Costs in 17 Biotechnology Policy Subsystems: Montpetit: Biotechnology Policy Subsystems." *Policy Studies Journal* 39 (3): 513–33. doi:10.1111/j.1541-0072.2011.00419.x.

Doern, G. Bruce, and Michael J. Prince. 2012. *Three Bio-Realms: Biotechnology and the Governance of Food, Health, and Life in Canada*. Studies in Comparative Political Economy and Public Policy. Toronto ; Buffalo, [NY]: University of Toronto Press.

There will be a draw for a free copy of this book that the instructor has available.

November 23 **Time to work on research papers**

November 30 **Time to work on research papers**

Resources for you

Mentoring Centre - http://www.sciencessociales.uottawa.ca/mentor/fra/
The goal of the Mentoring Centre is t help students with their academic and social well being during their time at the University of Ottawa. Regardless of where a student stands academically, or how far along they are in completing their degree, the mentoring centre is there to help students continue on their path to success.

A student may choose to visit the mentoring centre for very different reasons. Younger students may wish to talk to their older peers to gain insight into programs and services offered by the University, while older student may simply want to brush up on study and time management skills or learn about programs and services for students nearing the end of their degree.

In all, the Mentoring Centre offers a place for students to talk about concerns and problems that they might have in any facet of their lives. While students are able to voice their concerns and problems without fear of judgment, mentors can garner further insight in issues unique to students and find a more practical solution to better improve the services that the Faculty of Social Sciences offers, as well as the services offered by the University of Ottawa.

Academic Writing Help Centre - http://www.sass.uottawa.ca/writing/
At the AWHC you will learn how to identify, correct and ultimately avoid errors in your writing and become an autonomous writer. In working with our Writing Advisors, you will be able to acquire the abilities, strategies and writing tools that will enable you to:

- Master the written language of your choice
- Expand your critical thinking abilities
- Develop your argumentation skills
- Learn what the expectations are for academic writing

Career Services - http://www.sass.uottawa.ca/careers/
Career Services offers various services and a career development program to enable you to recognize and enhance the employability skills you need in today's world of work.

Counselling Service- http://www.sass.uottawa.ca/personal/
There are many reasons to take advantage of the Counselling Service. We offer:

- Personal counselling
- Career counselling
- Study skills counselling

Access Service - http://www.sass.uottawa.ca/acces/
The Access Service contributes to the creation of an inclusive environment by developing strategies and implementing measures that aim to reduce the barriers to learning for students who have learning disabilities, health, psychiatric or physical conditions.

Student Resources Centre
- http://www.communitylife.uottawa.ca/en/resources.php
The Student Resources Centres aim to fulfill all sorts of students needs.

Beware of Academic Fraud!

Academic fraud is an act committed by a student to distort the marking of assignments, tests, examinations, and other forms of academic evaluation. Academic fraud is neither accepted nor tolerated by the University. Anyone found guilty of academic fraud is liable to severe academic sanctions.

Here are a few examples of academic fraud:

- engaging in any form of plagiarism or cheating;
- presenting falsified research data;
- handing in an assignment that was not authored, in whole or in part, by the student;
- submitting the same assignment in more than one course, without the written consent of the professors concerned.

In recent years, the development of the Internet has made it much easier to identify academic plagiarism. The tools available to your professors allow them to trace the exact origin of a text on the Web, using just a few words.

In cases where students are unsure whether they are at fault, it is their responsibility to consult the University's Web site at the following address: http://www.socialsciences.uottawa.ca/eng/writing_tools.asp « *Tools for Writing Papers and Assignments* ».

Persons who have committed or attempted to commit (or have been accomplices to) academic fraud will be penalized. Here are some examples of the academic sanctions, which can be imposed:

- a grade of « F » for the assignment or course in question;
- an additional program requirement of between 3 and 30 credits;
- suspension or expulsion from the Faculty.
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Last session, most of the students found guilty of fraud were given an « F » for the course and had between three and twelve credits added to their program requirement. For more information, refer to:
http://web5.uottawa.ca/mcs-smc/academicintegrity/home.php

STATEMENT ON SEXUAL VIOLENCE

The University of Ottawa does not tolerate any form of sexual violence. Sexual violence refers to any act of a sexual nature committed without consent, such as rape, sexual harassment or online harassment. The University, as well as student and employee associations, offers a full range of resources and services allowing members of our community to receive information and confidential assistance and providing for a procedure to report an incident or make a complaint. For more information, visit www.uOttawa.ca/sexual-violence-support-and-prevention.