

JSGS 859 Innovation Policy

	UNIVERSITY OF REGINA CAMPUS	UNIVERSITY OF SASKATCHEWAN CAMPUS
INSTRUCTOR:	Dr. Margot Hurlbert	N/A
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OFFICE HOURS:	Thursday's 11:00 A.M.-12:00 P.M. but please notify in advance	
OFFICE LOCATION:	Rm 267, 2 Research Drive	
TERM:	Fall 2017 September 22 – November 30	
ROOM:	Ed 314	
DATE AND TIME:	Thursdays 1:00 P.M. – 3:50 P.M.	

CALENDAR DESCRIPTION

This graduate course is designed as a field course in the theory and practice of innovation policy. The graduate students will investigate the theory, methodology and applications of innovation policy through primary readings, discourse and writing.

LEARNING OBJECTIVES

Students will examine a variety of topics through readings, discourse and writing, including: the context of economic growth, technological change and innovation; theories and methods of innovation; policy applications; and critiques of innovation policy. Each class will start with a brief summary of the topics to be discussed, proceed to a discussion of the readings, and will lead to a summary discussion.

ATTRIBUTES OF JSGS GRADUATES

This course seeks to balance the theoretical (so your knowledge can grow and prepare you for future discussions) and the immediately practical (so you can better understand the difficulties in making sound public policy). As a field course in the MPA program of the JSGS this course builds upon the content of the core courses and applies those tools to a specific issue: in this case innovation policy.

As you will be aware, the JSGS has developed a set of six competencies all graduates will be able to demonstrate in their JSGS 884 portfolio. While the course contributes in a general way to all of the competencies, specific readings, assignments and activities will help you both specifically acquire and

demonstrate the following competencies:

2. **Communication and Social Skills:** You will both work in large and small groups in the course to undertake activities and assignments. You also will produce a series of writing exercises that will help you improve and demonstrate your writing competence.
3. **Systems Thinking and Creative Analysis:** Your in-class activities will allow you to approach a problem holistically. The critical essay and final paper will allow you to show your understanding and appreciation for the challenges of engaged policy analysis.
5. **Continuous Evaluation and Improvement:** The course explicitly delves into the evaluation literature in the context of innovation policy and discusses strategies and methods, including CBA, benchmarking, scorecards and roadmapping.
6. **Policy Knowledge:** This course offers an opportunity to explore innovation policy in-depth. For those of you in a research degree, I encourage you to use the course and its assignments to investigate your specific research interests.

COURSE CONTENT AND APPROACH

This is a seminar class. See below for list of required readings. This is a draft outline that will be finalized the first class.

COURSE OUTLINE AND ASSIGNMENTS

Students are expected to read all of the readings. Admittedly there are lots of readings. The goal is to get an in-depth understanding of the field, its theoretical base, methodological approaches and the body of evidence used in real-world policy systems.

1. Introduction to innovation policy in theory and practice – September 22

An introduction to the course and to the concepts of innovation policy in theory and practice.

Discussion in class:

Johnson, S. 2010. Where good ideas come from.

https://www.ted.com/talks/steven_johnson_where_good_ideas_come_from?language=en

Leadbeater, C. 2005. The era of open Innovation.

http://www.ted.com/talks/lang/eng/charles_leadbeater_on_innovation.html).

Romer, Paul. 2013. Rules, Technology and Innovation.

<https://www.youtube.com/watch?v=0bDs5VTafEA>

Supplementary optional readings:

Romer, P. 2007. Economic Growth, *The Concise Encyclopedia of Economics*, (2nd ed.) David R. Henderson, (ed.) (<http://www.econlib.org/library/Enc/EconomicGrowth.html>). (W)

Romer, P. 1994. Beyond Classical and Keynesian Macroeconomic Policy. *Policy Options*, July/Aug.

<http://www.colorado.edu/economics/courses/econ2020/6550/readings/romer1.html>). (W)

Romer, P. 1995. Beyond the Knowledge Worker.

<http://books.google.ca/books?hl=en&lr=&id=3cgJBAAAQBAJ&oi=fnd&pg=PA69&dq=Romer,+P.+199>

[5.+Beyond+the+Knowledge+Worker&ots=X4EQNN9NBM&sig=xFGZvIA9vU4Sby3LIjv4leQC4g#v=onepage&q&f=false](https://www.stic-csti.ca/eic/site/stic-csti.nsf/eng/home) (W)

Smith, A. 1776. *Wealth of Nations*, Chapters 1 & 2.

(<http://www.econlib.org/library/Smith/smWN1.html#B.I>, Ch.3, That the Division of Labour is Limited by the Extent of the Market) W

STIC. State of the Nation. Read Executive Summary, Chapters 1 & 2. (W) See: <http://www.stic-csti.ca/eic/site/stic-csti.nsf/eng/home>

2. Economic growth, technological change and innovation (2 weeks) September 22/28

Examination of the concepts of economic growth, technological change and innovation.

Readings:

Chaminade, C., Edquist, C. 2010. Rationales for Public Policy Intervention in the Innovation Process: Systems of Innovation Approach, chapter 5 in Smits, R.E., Kyhlmann, S., Shapira, P. (eds) *The Theory and Practice of Innovation Policy. An International Research Handbook*. Edgar Elgar: Cheltenham, UK. Pp 95-114.

Bergek, A., Jacobsson, S., Hekkert, M., Smith, K. 2010. Functionality of Innovation Systems as a Rationale for and Guide to Innovation Policy. Chapter 6 in Smits, R.E., Kyhlmann, S., Shapira, P. (eds) *The Theory and Practice of Innovation Policy. An International Research Handbook*. Edgar Elgar: Cheltenham, UK. Pp. 115-144.

Alston, J. 2010. "The Benefits from Agricultural Research and Development, Innovation, and Productivity Growth", OECD Food, Agriculture and Fisheries Working Papers, No. 31, OECD Publishing.

(<http://www.oecd-ilibrary.org/docserver/download/5km91nfsnkwg.pdf?expires=1427139989&id=id&accname=guest&checksum=43863333C571E999A0E6846EC43B405A>).

Supplementary optional readings:

Alston, J., T. J. Wyatt, P. G. Pardey, M. C. Marra and C. Chan-Kang. 2000. A meta-analysis of the rates of returns to agricultural R&D. Research Report 113, Washington: International Food Policy Research Institute, September. Available online at: <http://www.ifpri.org/publication/meta-analysis-rates-return-agricultural-r-d>.

Chavas, J. P. and T. L. Cox. 1992. A nonparametric analysis of the influence of research on agricultural productivity. *American Journal of Agricultural Economics* 74: 3: 583-591.

Huffman, W & R Evenson. 1992. Contributions of public and private science and technology to US ag productivity. *AJAE* 74(3): 751-6.

Pardey, P.G. and B. J. Craig. 1989. Causal relationships between public sector agricultural research expenditures and output. *American Journal of Agricultural Economics* 71: 1: 9-19.

Fabrizio, K.R., Poczter, S., Zelner, B.A. 2017. Does innovation policy attract international competition? Evidence from energy storage. *Research Policy*. 46(6): 1106-1117.

3. Theories and innovation policy – Economic – October 5

Theories of innovation are important in setting the stage and grounding policy in relation to innovation.

Readings:

Hagedoorn, J. 1989. Marx's and Schumpeter's theories of industrial and technological development. Chapter 2 in *The Dynamic Analysis of Innovation and Diffusion: a Study in Process Control* Pinter Publishers, London. pp. 10-52.

Gallouj, F. 2002. Interactional innovation. A neo-Schumpeterian model. Chapter 3 in Sundbo, J., Fuglsang, L. (Eds) *Innovation as Strategic Reflexivity*. Routledge Advances in Management and Business Studies.

Supplementary Optional Readings: World Bank. WDR. 1997.

(<http://onlinelibrary.wiley.com/doi/10.1111/j.1759-5436.1998.mp29002003.x/epdf>), esp. intro and chapter 1 (W)

Romer, P. 1990. 'Endogenous technological change', *Journal of Political Economy*, 98: 5: 2: S71-S102.

([http://www.jstor.org/sici?sici=0022-3808\(199010\)98%3A5%3CS71%3AETC%3E2.0.CO%3B2-8&cookieSet=1](http://www.jstor.org/sici?sici=0022-3808(199010)98%3A5%3CS71%3AETC%3E2.0.CO%3B2-8&cookieSet=1))

4. Theories of innovation policy – Social – October 12

An examination of innovation models based on communities, partnerships and human-scale relationships.

Readings:

Kivimaa, P., Kern, F. 2016. Creative destruction or mere niche support? Innovation policy mixes for sustainability transitions. *Research Policy*. 45(1) 205-217.

Cooke, P. 2001. "Regional innovation systems, clusters, and the knowledge economy." *Industrial & Corporate Change*. 10(4): 945-74.

Etzkowitz, H., Leydesdorff L. 2000. 'The Dynamics of Innovation: From National Systems and 'Mode 2' to a Triple Helix of University-Industry-Government Relations', *Research Policy*, 29(2), 109-123. (JSTOR)

5. Digital Innovation – October 19

An examination of digital innovation and governance.

Readings:

Longo, J., Wald, D.M., Hondula, D.M. 2015. The Future of Policy Informatics. In Erik W. Johnson (ed) *Governance in the Information Era: Theory and Practice of Policy Informatics*. Chapter 19, 335-352. New York: Routledge.

6. Governance Systems and Policy Learning - October 26

A 360° review of the concepts of governing and governance and a learning in policy making. Adaptive governance, experimental governance and anticipatory governance.

Readings:

Chapter 2 – Adaptive Governance (Management, Co, Management, and Anticipatory) in Hurlbert, M. 2018. *Adaptive Governance of Disaster: Drought and Flood in Rural Areas*. - Pahl, Wostl, C., Gupta, J., (Series Eds) of *Water Governance: Concepts, Methods, and Practice*. Springer: Hamburg.

Smits, R., Kuhlmann, S., Teubal, M. 2010. A System-Evolutionary Approach for Innovation Policy. Chapter 17 Smits, R.E., Kuhlmann, S., Shapira, P. (eds) *The Theory and Practice of Innovation Policy. An International Research Handbook*. Edgar Elgar: Cheltenham, UK. Pp. 417-448.

Supplementary Optional Readings:

North, D. 1993. Nobel Prize Lecture.

(http://nobelprize.org/nobel_prizes/economics/laureates/1993/north-lecture.html) (W)

OECD, Governance in the 21st Century, Paris: OECD, Ch. 1 at:

(<http://www.oecd.org/futures/17394484.pdf>) (W).

Picciotto, R. 1995. 'Putting institutional economics to work: from participation to governance', World Bank Discussion Paper 304, accessed on August 15, 2005 at:

(<http://elibrary.worldbank.org/doi/pdf/10.1596/0-8213-3458-1>) (W)

No class November 2**7. Place and innovation policy - November 9**

Examination of the literature related to innovation policy, including clusters and business strategy.

Readings:

Krugman, P. 1998. What's new about the new economic geography? *Oxford Review of Economic Policy* 14: 2: 7-17. (JSTOR)

Gachie, W., Govender, D. W. 2017. Innovation Policy and Governance in the African Region. *International Business & Economics Research Journal*. 16(2) 119-130.

Li, F., Butel, L., Wang, P. 2017. Innovation policy configuration – a comparative study of Russia and China. *Policy Studies*. 38(4) 311-338.

Supplementary Optional Readings:

Held, J. 1996. Clusters as an Economic Development Tool: Beyond the Pitfalls. *Economic Development Quarterly* 10: 3: 249-261.

Porter, M. 1990. The Competitive Advantage of Nations. *Harvard Business Review*.

(http://dl1.cuni.cz/pluginfile.php/50387/mod_resource/content/0/Porter-competitive-advantage.pdf) (W)

OECD. 2005. Innovation Policy and Performance. A cross-country comparison.

World Bank. 2010. Innovation Policy: A Guide for Developing Countries. ISBN 978 08213 8269-1

8. Innovation policy and learning - November 16**Readings:**

Klochikhin, E.A. 2012. Russia's innovation policy: Stubborn path-dependencies and new approaches. 41(9) 1620-1630.

Hurlbert, M. 2013. "Learning, Participation, and Adaptation: Exploring Agri-Environmental Programs" *Journal of Environmental Planning and Management*. DOI: 10.1080/09640568.2013.847823

9. Innovation policy instruments - November 23

A consideration of policy and policy instruments advancing innovation.

Readings:

Paraskevopoulou, E. 2012. Non-technological regulatory effects: Implications for Innovation and Innovation policy. *Research Policy*. 41(6): 1058-1071.

Black, J., M. Lodge and M. Thatcher. 2005. *Regulatory Innovation: A Comparative Analysis*. Cheltenham, UK: Edward Elgar. Chs. 2-3. (Available from Smyth)

Supplementary Optional Readings:

Clark, L & P Phillips. 2013. Bioproduct Approval Regulation: Analysis of Front-line Governance Complexity. *AgBioForum* 16(2), 1-14.

10. Theory into practice - November 30

How has theory been adapted into practice? What is the role of the state in a global era?

Readings:

Doern, DB, P. Phillips, and D. Castle. 2016. An Innovation Economy and Society? *Canadian Science, Technology and Innovation Policy and Governance*. MQUP. Chapter 13.

OECD. 2010. The OECD Innovation Strategy: Getting A Head Start on Tomorrow – Key Findings. (<http://www.oecd.org/sti/45326349.pdf>) (W)

Magro, E., Wilson, J.R. 2013. Complex innovation policy systems: Towards an evaluation mix. *Research Policy*. 42(9) 1647-1656.

Selected innovation strategies from Saskatchewan, Canada, US, EU, Australia ...

DESCRIPTION OF ASSIGNMENTS:

1. Policy brief (10%) **One brief per student:** In weeks 3 (Oct 5), 4 (Oct 12), 6 (Oct 26), and 8 (Nov 9) one of you (two maximum) will pick a contemporary innovation policy topic and critically assess its merit as a driver for policy action. Each paper should be a maximum of one page; you will be expected to lead a brief discussion of the mechanism in class. Discuss the provenance of the idea, who is now using it, what is the logic and is there any evidence anywhere that it could lead to desired outcomes?
2. Presentations (25%): Each of you will do 3 presentations of the key elements of the readings. You should summarize the key points in a 1-page note for your colleagues, which YOU will post to the Group Discussion Forum for all to use (illustrations and tables from the readings can be added as appendices beyond the max. 1 page of text). You can sign up at class on Sept 22, or subsequent classes for your readings. Only one student per reading.
3. Critical literature analysis (35% of marks): The federal government is consulting on its innovation agenda. You will produce a technical brief, addressing some aspect of the debate or plan. Each brief will be up to 2500 words and will address the theories/models justifying your policy advice, methods of implementation and evaluation and any case studies or metrics that support or challenge the use of the measure. I will offer some direction as to good topics. This critical literature analysis is due **November 16, 2017**.
4. Final paper (30% of marks): The final paper will be a 1500-word essay that critically examines a contemporary application of innovation policy (by sector, location, technology, mechanism ...). You are expected to consult with me before starting the task. This final paper is due **December 7, 2017**.



EVALUATION

Policy presentation (1 page max)	10%
Readings presentations (2.) and discussion (max 1 page each)	25%
Critical literature analysis (max 2500 words)	35%
Final Paper (max. 1500 words)	30%

LATE ASSIGNMENTS

Late assignments will be assigned a penalty of one grade (10%); special circumstances will be considered upon application by the student.

WRITING ASSISTANCE

Students are encouraged to access writing assistance at the Student's Center. Contact me for more information.

Students are also encouraged to seek out online resources -- the Online Writing Lab at Purdue University is an excellent starting point: <http://owl.english.purdue.edu/owl/>. Students who require assistance with software applications (Word, Excel etc.) are encouraged to visit IT4U in the University Learning Commons (across from the Writing Help Centre) for one on one help and free 50 minute software workshops.

STUDENTS WITH SPECIAL NEEDS

University of Regina (U of R): Students in this course who, because of a disability, may have a need for accommodations are encouraged to discuss this need with the instructor and to contact the Coordinator of Special Needs Services at (306) 585-4631.

University of Saskatchewan (U of S): Students in this course who, because of a disability, may have a need for accommodations are encouraged to discuss this need with the instructor and to contact Disability Services for Students (DSS) at 966-7273.

STUDENTS EXPERIENCING STRESS

University of Regina (U of R): Students in this course who are experiencing stress can seek assistance from the University of Regina Counselling Services. For more information, visit this website: <http://www.uregina.ca/student/counselling/contact.html>, or call (306) 585-4491 between 8:30 a.m. to 4:30 p.m. Monday to Friday.

ACADEMIC INTEGRITY AND CONDUCT

University of Regina (U of R): Ensuring that you understand and follow the principles of academic integrity and conduct as laid out by the University of Regina (available at <http://www.uregina.ca/gradstudies/grad-calendar/policy-univ.html>) is vital to your success in graduate school. Ensuring that your work is your own and reflects both your own ideas and those of others incorporated in your work is important: ensuring that you acknowledge the ideas, words, and phrases of others that you use is a vital part of the scholarly endeavor. If you have any questions at all about academic integrity in general or about specific issues, contact your course instructor to discuss your questions.