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**Department of Political Science
UNIVERSITY OF TORONTO**

**INNOVATION AND GOVERNANCE
POL 408H 1 F / POL 2338H 1 F
Fall 2018**

Instructor: Harald Bathelt
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Office Hours: Tuesday, 2:30-3:30 PM and 6:00-7:00 PM
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Lecture Hours: Tuesday, 4:00-6:00 PM
Lecture Room: TBA

Course Description:

The course discusses a broad range of topics related to innovation and governance including (i) technological change and its social and economic consequences, (ii) the spatial effects, which result from this, and (iii) necessities for innovation policies at different territorial levels. As the international competitiveness of industrial economies cannot be based on cost advantages alone, future growth in the knowledge-based economy will increasingly rely on capabilities related to knowledge generation and innovation. As a consequence, questions of performance in innovation and support policy will become decisive at the firm, regional-state and national-state levels.

The seminar is divided into three main parts. The first part deals with conceptual foundations of innovation, and explores the connection between economic learning, knowledge creation and innovation processes. In the second part, innovation and governance are investigated in territorial context, ranging from national and subnational innovation systems to permanent and temporary clusters and varieties of capitalism. The third part of the course discusses aspects of transnational innovation processes and multilevel governance challenges. The seminar develops a relational perspective of institution-building and territorial governance, which helps us to understand corporate, inter-firm, trans-local and cross-national innovation processes.

The course is inter-disciplinary in nature and uses literature from a number of different fields dealing with innovation, governance and its consequences in economic and social life. The course is, thus, also of interest to students in Economics, Geography, History and Philosophy of Science and Technology, Management and Sociology.

Course Structure:

This course has a seminar format. Course evaluation will be based on a seminar presentation and a research assignment (including a proposal and a research paper). Active seminar participation will also be marked.

For the research assignment, students are expected to choose a topic, which is closely linked to the context of the course, and relate this topic to empirical studies in Canada and/or the US (if possible). Students should aim to conduct a comparative study. This could be an investigation of an industry in two countries or in two regions; a study of the differences in the organization of regional innovation conditions; or a study comparing specific aspects of two innovation systems. For instance, students could compare the organization of innovation in two regional clusters in Canada, or compare the institutional basis of innovation in a specific industry in Canada and/or the US (or a specific region in both countries). Often the rule is: the more specific the research question, the better.

The 2-page (double-spaced) *paper proposal* should introduce the topic, put forward the main question or problem to be addressed, provide a structure of the argument to be advanced, and indicate the conceptual framework used to structure the research. An annotated bibliography should be attached to the 2-page proposal that gives an overview of the sources to be used. It is expected that this proposal and the comments received on it will then provide the basis for the *research paper*. Undergraduate students should hand in a 15-20-page paper (double-spaced) and graduate students a 20-25-page paper (double-spaced) in the last week of classes. To conserve paper, please print all assignments double-sided.

Assignments should be handed in on the due date. Students should bring a hardcopy to class (or, if not possible, to the Political Science Main Office, Room 3018). The due dates for the assignments are noted below. For lateness, a penalty of 3% per day will be deducted from the mark for the first 7 days. After this 7-day period, papers will receive a grade of 0%. (Special arrangements can only be made based on proper and timely documentation, such as a doctor's note.) Students are strongly advised to keep all rough and draft work as well as hard copies of their research papers and assignments until the marked assignments have been returned and the grades been posted on ACORN. The research paper (NOT the proposal) also needs to be submitted online through the Quercus-based course website.

Students who miss two or more classes without acceptable reasoning and documentation, such as a doctor's or a registrar's note, will receive 0% on their seminar participation mark.

Quercus:

The course uses the management system Quercus which helps to establish efficient communication between instructor and students. One of its advantages is that students can access their marks at any time on an individual basis. Questions related to the course should be directed to the instructor. An answer will usually be provided within 2-3 days, except for the

weekend. In urgent cases, students should discuss issues with the instructor in person or by telephone.

To access the Quercus-based course website, go to the UofT portal login page at <http://portal.utoronto.ca> and log in using your UTORid and password. If you need information on how to activate your UTORid and set your password for the first time, please go to <http://www.utorid.utoronto.ca>. The Help Desk at the Information Commons and telephone assistance under 416-978-HELP can also answer other related questions.

Once you have logged into the portal using your UTORid and password, you will find a link on the Quercus “Dashboard” to this course website, along with links to all your other Quercus-based courses. At times, the instructor or teaching assistant may decide to send out important course information by e-mail. To this end, all UofT students are required to have a valid UofT e-mail address. You are responsible for ensuring that your UofT e-mail address is set up AND properly entered in the ACORN system.

Academic integrity

Academic integrity is fundamental to learning and scholarship at the University of Toronto. Participating honestly, respectfully, responsibly, and fairly in this academic community ensures that the UofT degree that you earn will be valued as a true indication of your individual academic achievement, and will continue to receive the respect and recognition it deserves. For further details and information on academic integrity, see <http://www.artsci.utoronto.ca/osai/students>.

Turnitin.com:

The course uses Turnitin.com, a web-based program to deter plagiarism and ensure academic integrity. Normally, students will be required to submit their research papers (NOT the proposals) to Turnitin.com for a review of textual similarity and detection of possible plagiarism. In doing so, students will allow their essays to be included as source documents in the Turnitin.com reference database, where they will be used solely for the purpose of detecting plagiarism. The terms that apply to the University’s use of the Turnitin.com service are described on the Turnitin.com website. The submitted hardcopy of the research paper and electronic version must be identical.

If, as a student, you object to using Turnitin.com, please see the course instructor to establish appropriate alternative arrangements for submission of your written assignments. This must be done at least 4 weeks before the submission deadline.

Plagiarism is a serious academic offence and will be dealt with accordingly. For further clarification and information on plagiarism, see the University of Toronto’s policy on Plagiarism at <http://advice.writing.utoronto.ca/using-sources/>.

The submission of the final research paper to Turnitin.com is done through the Quercus-based website, without the need to register separately with Turnitin.com. Students have to select “Assignments” from the Quercus course menu and click the “Research Paper” link to upload and submit their research papers (“Submit Assignment”). Help regarding this process is available through portal.help@utoronto.ca (see also the information in the Quercus “Help” menu).

Accessibility Needs:

The University of Toronto is committed to accessibility. If you require accommodations for a disability, or have any accessibility concerns about the course, the classroom or course materials, please contact Accessibility Services as soon as possible at accessibility.services@utoronto.ca or <http://www.accessibility.utoronto.ca/>.

Required Readings:

The readings for this course consist of chapters from an edited book plus additional readings:

(a) All required readings, including the book chapters and additional readings, will be accessible online through the Quercus-based website.

(b) The core reading of the course is the following edited book: Bathelt, H., Cohendet, P., Henn, S. and Simon, L. (Eds.) (2017): The Elgar Companion to Innovation and Knowledge Creation. Cheltenham, Northampton (MA): Edward Elgar. The book is available as eBook through eBooks.com and Google Play eBooks for \$70-80.

Further details about the course and suggestions from students will be discussed in class.

Course Evaluation:

The course evaluation will be based on the following aspects:

- 20% 2-page paper proposal plus annotated bibliography (due class 7: October 23)
- 20% presentation and seminar participation
- 60% research paper (due class 12: December 4)

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TOPICS: Fall Term 2018

A. Learning, knowledge creation and innovation

1. Innovation as a process
2. Concept and measurement of innovation
3. Innovation and creativity
4. Innovation and institutions
5. Innovation, learning and networking

B. Innovation and governance in territorial context

6. Spatiality of innovation and innovation systems
7. Different dynamics in national innovation systems
8. Varieties of capitalism and institutional complementarities
9. Innovation in permanent and temporary clusters
10. Subnational innovation and governance

C. Transnational innovation and multilevel governance challenges

11. Global networks of innovation
12. Multilevel governance and innovation policy

Readings by Topic: Fall Term 2018

Readings marked by an asterisk (*) are core readings on each topic which all students are required to read. Graduate students are expected to read 1-2 additional texts per week.

1. Innovation as a process

- *Bathelt, H., Cohendet, P., Henn, S. and Simon, L. (2017): Innovation and knowledge creation: Challenges to the field. In: Bathelt, H., Cohendet, P., Henn, S. and Simon, L. (Eds.): The Elgar Companion to Innovation and Knowledge Creation. Cheltenham, Northampton (MA): Edward Elgar. Chapter 1.
- Dosi, G. (1988): The nature of the innovative process. In: Dosi, G., Freeman, C., Nelson, R. R., Silverberg, G. and Soete, L. L. G. (Eds.): Technical Change and Economic Theory. London, New York: Pinter, pp. 221-238.
- Pavitt, K. (2005): Innovation process. In: Fagerberg, J., Mowery, D. C. and Nelson, R. R. (Eds.): The Oxford Handbook of Innovation. Oxford: Oxford University Press, pp. 86-114.
- Rigby, D. K., Gruver, K. and Allen, J. (2009): Innovation in turbulent times. Harvard Business Review 87 (6): 79-86.
- Schumpeter, J. (2003): The process of creative destruction. In: Schumpeter, J. (Ed.): Capitalism, Socialism and Democracy. London and New York: Routledge (first published in 1943), pp. 81-86.

2. Concept and measurement of innovation

- *Cohendet, P. and Simon, L. (2017): Concepts and models of innovation. In: Bathelt, H., Cohendet, P., Henn, S. and Simon, L. (Eds.): The Elgar Companion to Innovation and Knowledge Creation. Cheltenham, Northampton (MA): Edward Elgar. Chapter 3.
- *Lhuillery, S., Raffo, J. and Hamdan-Livramento, I. (2017): Measurement of innovation. In: Bathelt, H., Cohendet, P., Henn, S. and Simon, L. (Eds.): The Elgar Companion to Innovation and Knowledge Creation. Cheltenham, Northampton (MA): Edward Elgar. Chapter 7.
- *Glückler, J. (2017): Services and innovation. In: Bathelt, H., Cohendet, P., Henn, S. and Simon, L. (Eds.): The Elgar Companion to Innovation and Knowledge Creation. Cheltenham, Northampton (MA): Edward Elgar. Chapter 17.
- Burger-Helmchem, T. and Hussler, C. (2017): Reverse innovation. In: Bathelt, H., Cohendet, P., Henn, S. and Simon, L. (Eds.): The Elgar Companion to Innovation and Knowledge Creation. Cheltenham, Northampton (MA): Edward Elgar. Chapter 5.

Vanhaverbeke, W. (2017): Broadening the concept of open innovation. In: Bathelt, H., Cohendet, P., Henn, S. and Simon, L. (Eds.): The Elgar Companion to Innovation and Knowledge Creation. Cheltenham, Northampton (MA): Edward Elgar. Chapter 6.

3. Innovation and creativity

*Cohendet, P., Parmentier, G. and Simon, L. (2017): Managing knowledge, creativity, and innovation. In: Bathelt, H., Cohendet, P., Henn, S. and Simon, L. (Eds.): The Elgar Companion to Innovation and Knowledge Creation. Cheltenham, Northampton (MA): Edward Elgar. Chapter 13.

*Desrochers, P., Leppala, S. and Szurmak, J. (2017): Urban diversity and innovation. In: Bathelt, H., Cohendet, P., Henn, S. and Simon, L. (Eds.): The Elgar Companion to Innovation and Knowledge Creation. Cheltenham, Northampton (MA): Edward Elgar. Chapter 14.

Grandadam, D., Cohendet, P. and Simon, L. (2013): Places, spaces and the dynamics of creativity: The video game industry in Montreal. Regional Studies 17: 1701-1714.

Roberts, J. (2017): Community, creativity and innovation. In: Bathelt, H., Cohendet, P., Henn, S. and Simon, L. (Eds.): The Elgar Companion to Innovation and Knowledge Creation. Cheltenham, Northampton (MA): Edward Elgar. Chapter 21.

4. Innovation and institutions

*Glückler, J. and Bathelt, H. (2017): Institutional context and innovation. In: Bathelt, H., Cohendet, P., Henn, S. and Simon, L. (Eds.): The Elgar Companion to Innovation and Knowledge Creation. Cheltenham, Northampton (MA): Edward Elgar. Chapter 8.

*Douglas, Y. and Hargadon, A. (2017): Domesticating innovation – Designing revolutions. In: Bathelt, H., Cohendet, P., Henn, S. and Simon, L. (Eds.): The Elgar Companion to Innovation and Knowledge Creation. Cheltenham, Northampton (MA): Edward Elgar. Chapter 10.

*Cantner, U. and Vannuccini, S. (2017): Innovation and lock-in. In: Bathelt, H., Cohendet, P., Henn, S. and Simon, L. (Eds.): The Elgar Companion to Innovation and Knowledge Creation. Cheltenham, Northampton (MA): Edward Elgar. Chapter 11.

Barley, S. R. and Tolbert, P. S. (1997): Institutionalization and structuration: Studying the links between action and institution. Organization Studies 18: 93-117.

North, D. C. (1991): Institutions. Journal of Economic Perspectives 5: 97-112.

Olive, D. (2012): The last picture show. Toronto Star, January 7.

Setterfield, M. (1993): A model of institutional hysteresis. Journal of Economic Issues 27: 755-774.

5. Innovation, learning and networking

*Ferrary, M. and Granovetter, M. (2017): Social networks and innovation. In: Bathelt, H., Cohendet, P., Henn, S. and Simon, L. (Eds.): The Elgar Companion to Innovation and Knowledge Creation. Cheltenham, Northampton (MA): Edward Elgar. Chapter 20.

*Vellera, C., Vernet, E. and Ogawa, S. (2017): The user innovation phenomenon. In: Bathelt, H., Cohendet, P., Henn, S. and Simon, L. (Eds.): The Elgar Companion to Innovation and Knowledge Creation. Cheltenham, Northampton (MA): Edward Elgar. Chapter 23.

*Li, P. (2017): Horizontal learning. In: Bathelt, H., Cohendet, P., Henn, S. and Simon, L. (Eds.): The Elgar Companion to Innovation and Knowledge Creation. Cheltenham, Northampton (MA): Edward Elgar. Chapter 24.

Cohendet, P., Grandadam, D., Simon, L. and Capdevila, I. (2014): Epistemic communities, localization and the dynamics of knowledge creation. Journal of Economic Geography 14: 929-954.

Lundvall, B.-Å and Johnson, B. (1994): The learning economy. Journal of Industry Studies 1: 23-42.

6. Spatiality of innovation and innovation systems

*Torre, A. and Rallet, A. (2005): Proximity and localization. Regional Studies 39: 47-59.

*Lundvall, B.-Å. (2017): National innovation systems and globalization. In: Bathelt, H., Cohendet, P., Henn, S. and Simon, L. (Eds.): The Elgar Companion to Innovation and Knowledge Creation. Cheltenham, Northampton (MA): Edward Elgar. Chapter 29.

*Bathelt, H. and Henn, S. (2017): National and regional innovation systems. In: Bathelt, H., Cohendet, P., Henn, S. and Simon, L. (Eds.): The Elgar Companion to Innovation and Knowledge Creation. Cheltenham, Northampton (MA): Edward Elgar. Chapter 28.

Archibugi, D., Howells, J. and Michie, J. (1999): Innovation systems and policy in a global economy. In: Archibugi, D., Howells, J. and Michie, J. (Eds.): Innovation Policy in a Global Economy. Cambridge: Cambridge University Press, pp. 1-17.

Boschma, R. (2005): Proximity and innovation: A critical assessment. Regional Studies 39:

61-74.

Breschi, S. and Malerba, F. (1997): Sectoral innovation systems: Technological regimes, Schumpeterian dynamics and spatial boundaries. In: Edquist, C. (Ed.): Systems of Innovation. Technologies, Institutions, and Organizations. London, Washington: Pinter, pp. 130-156.

Lundvall, B.-Å. and Maskell, P. (2000): Nation states and economic development: From national systems of production to national systems of knowledge creation and learning. In: Clark, G. L., Feldman, M. P. and Gertler, M. S. (Eds.): The Oxford Handbook of Economic Geography. Oxford: Oxford University Press, pp. 353-372.

7. Different dynamics in national innovation systems

*Chesnais, F. (1993): The French national innovation system. In: Nelson, R. R. (Ed.): National Innovation Systems: A Comparative Analysis. Oxford: Oxford University Press, pp. 192-229.

*Walker, W. (1993): National innovation systems: Britain. In: Nelson, R. R. (Ed.): National Innovation Systems: A Comparative Analysis. Oxford: Oxford University Press, pp. 158-191.

Campbell, J. L. and Pedersen, O. K. (2014): The National Origins of Policy Ideas : Knowledge Regimes in the United States, France, Germany, and Denmark. Princeton: Princeton University Press (Chapter 3: The decline of dirigisme in France, pp. 84-128).

8. Varieties of capitalism and institutional complementarities

*Hall, P. A. and Soskice, D. (2001): An introduction to varieties of capitalism. In: Hall, P. A. and Soskice, D. (Eds.): Varieties of Capitalism: The Institutional Foundations of Comparative Advantage. Oxford, New York: Oxford University Press, pp. 1-68.

Block, F. and Keller, M. R. (2008): Where Do Innovations Come From? Transformations in the US National Innovation System, 1970-2006. Working Papers in Technology Governance and Economic Dynamics, No. 35. Tallinn: Tallinn University of Technology. URL: <http://technologygovernance.eu/files/main/2011051801183232.pdf>.

Green, S. and Paterson, W. E. (2005): Introduction: Semisovereignty challenged. In: Green, S. and Paterson, W. E. (Eds.): Governance in Contemporary Germany: The Semisovereign State Revisited. Cambridge: Cambridge University Press, pp. 1-20.

Mowery, D. C. (1998): The changing structure of the US national system: Implications for international conflict and cooperation in R&D policy. Research Policy 27: 639-654.

Niosi, J. (2000): Canada's National System of Innovation. Montreal, Kingston: McGill-Queen's University Press. Chapter 2: Canada's R&D System.

9. Innovation in permanent and temporary clusters

*Bathelt, H., Malmberg, A. and Maskell, P. (2004): Clusters and knowledge: Local buzz, global pipelines and the process of knowledge-creation. Progress in Human Geography 28: 31-56.

*Bathelt, H. (2017): Trade fairs and innovation. In: Bathelt, H., Cohendet, P., Henn, S. and Simon, L. (Eds.): The Elgar Companion to Innovation and Knowledge Creation. Cheltenham, Northampton (MA): Edward Elgar. Chapter 31.

*Golfetto, F. and Rinallo, D. (2017): Innovation through trade show concertation. In: Bathelt, H., Cohendet, P., Henn, S. and Simon, L. (Eds.): The Elgar Companion to Innovation and Knowledge Creation. Cheltenham, Northampton (MA): Edward Elgar. Chapter 32.

Callon, M. (2017): Markets, marketization and innovation. In: Bathelt, H., Cohendet, P., Henn, S. and Simon, L. (Eds.): The Elgar Companion to Innovation and Knowledge Creation. Cheltenham, Northampton (MA): Edward Elgar. Chapter 36.

Grabher, G. and Ibert, O. (2017): Knowledge collaboration in virtual communities. In: Bathelt, H., Cohendet, P., Henn, S. and Simon, L. (Eds.): The Elgar Companion to Innovation and Knowledge Creation. Cheltenham, Northampton (MA): Edward Elgar. Chapter 33.

Malmberg, A. and Maskell, P. (2002): The elusive concept of localization economies: Towards a knowledge-based theory of spatial clustering. Environment and Planning A 34: 429-449.

Martin, R. and Sunley, P. (2003): Deconstructing clusters: Chaotic concept or policy panacea? Journal of Economic Geography 3: 5-35.

Porter, M. E. (1990): The Competitive Advantage of Nations. New York: Free Press. Chapter 3: Determinants of National Competitive Advantage.

10. Subnational innovation and governance

*Asheim, B. T. and Isaksen, A. (1997): Location, agglomeration and innovation: Towards regional innovation systems in Norway? European Planning Studies 5: 299-330.

*Bramwell, A., Nelles, J. and Wolfe, D. A. (2008): Knowledge, innovation and institutions: Global and local dimensions of the ICT cluster in Waterloo, Canada. Regional Studies 42: 101-116.

- *Shearmur, R. (2017): Urban bias in innovation studies. In: Bathelt, H., Cohendet, P., Henn, S. and Simon, L. (Eds.): The Elgar Companion to Innovation and Knowledge Creation. Cheltenham, Northampton (MA): Edward Elgar. Chapter 27.
- Bathelt, H., Kogler, D. F. and Munro, A. K. (2011): Social foundations of regional innovation and the role of university spin-offs. Industry and Innovation 18: 461-486.
- Cooke, P. (2004): Introduction: Origins of the concept. In: Braczyk, H.-J., Cooke, P. and Heidenreich, M. (Eds.): Regional Innovation Systems: The Role of Governances in a Globalized World. 2nd Edition. London: UCL Press, pp. 2-25.
- Ghent-Mallet, J. (2004): Silicon Valley North: The formation of the Ottawa innovation cluster. In: Shavinina, L. V. (Ed.): Silicon Valley North: A High-Tech Cluster of Innovation and Entrepreneurship. St. Louis: Elsevier, pp. 21-31.
- Gillette, F., Brady, D. and Winter, C. (2013): The rise and fall of BlackBerry: An oral history. Bloomberg Businessweek, December 5.

11. Global networks of innovation

- *Henn, S. and Bathelt, H. (2017): Transnational entrepreneurs and global knowledge transfer. In: Bathelt, H., Cohendet, P., Henn, S. and Simon, L. (Eds.): The Elgar Companion to Innovation and Knowledge Creation. Cheltenham, Northampton (MA): Edward Elgar. Chapter 39.
- *Van Assche, A. (2017): Global value chains and innovation. In: Bathelt, H., Cohendet, P., Henn, S. and Simon, L. (Eds.): The Elgar Companion to Innovation and Knowledge Creation. Cheltenham, Northampton (MA): Edward Elgar. Chapter 45.
- *Herod, A., Pickren, G., Rainnie, A. and McGrath-Champ, S. (2017): Innovation, development and global destruction networks. In: Bathelt, H., Cohendet, P., Henn, S. and Simon, L. (Eds.): The Elgar Companion to Innovation and Knowledge Creation. Cheltenham, Northampton (MA): Edward Elgar. Chapter 46.
- Coe, N. M. and Bunnell, T. G. (2003): ‘Spatializing’ knowledge communities: Towards a conceptualisation of transnational innovation networks. Global Networks 3: 437-456.
- Gereffi, G., Humphrey, J. and Sturgeon, T. (2005): The governance of global value chains. Review of International Political Economy 12 (1): 78-104.
- Hsu, J.-y. and Saxenian, A. (2000): The limits to guanxi capitalism: Transnational collaboration between Taiwan and the US. Environment and Planning A 32: 1991-2005.

12. Multilevel governance and innovation policy

*Hooghe, L. and Marks, G. (2003): Unraveling the central state, but how? Types of multi-level governance. American Political Science Review 97 (2): 233-243.

*Bradford, N. and Wolfe, D. (2017): Learning through governance. In: Bathelt, H., Cohendet, P., Henn, S. and Simon, L. (Eds.): The Elgar Companion to Innovation and Knowledge Creation. Cheltenham, Northampton (MA): Edward Elgar. Chapter 44.

Bathelt, H. and Glückler, J. (2011): The Relational Economy: Geographies of Knowing and Learning. Oxford: Oxford University Press. Chapter 11: Consequences of Relational Policies.

Feldman, M and Lowe, N. (2017): Innovation, governance and place. In: Bathelt, H., Cohendet, P., Henn, S. and Simon, L. (Eds.): The Elgar Companion to Innovation and Knowledge Creation. Cheltenham, Northampton (MA): Edward Elgar. Chapter 42.

Lagendijk, A. and Cornford, J. (2000): Regional institutions and knowledge – Tracking new forms of regional development policy. Geoforum 31: 209-218.

Wolfe, D. A. and Gertler, M. S. (2004): Clusters from the inside and out: Local dynamics and global linkages. Urban Studies 41: 1071-1093.