

Syllabus „Economics of Innovation“

Aim of the course

The lecture provides an introduction to economic issues of innovation and new ideas. The course first sets out general problems in the economics of innovation such as the public goods nature of ideas and the importance of innovation for economic prosperity. In the second part, the course discusses labor and personnel issues in innovation policy, for example the impact of immigration on innovation. In the last part, the course analyses issues in intellectual property rights and public economics topics such as public funding of research and the consequences of innovation for inequality.

In the tutorials, we will read current papers at the frontier of research. I expect students to read the papers before class and send me brief answers to questions about the papers until the end of the week before the tutorial.

Students should be familiar with undergraduate micro- and macroeconomics. They should also have an understanding of empirical methods to estimate treatment effects.

At the end, there will be a 90-minute exam covering the content of the lecture and of some of the papers from the tutorials. The results from this exam will determine the grade.

The course is mostly complementary and slightly overlapping with the course „Labor Markets in the Knowledge Economy“, which will be offered each winter term starting in the winter term 2020/2021.

Topics

1. Introduction to the Economics of Innovation
2. Innovation and Economic Growth
3. Measurement of Innovation
4. The Supply of Inventors
5. Immigration and Innovation
6. Incentives for Innovation
7. Intellectual Property Rights
8. Taxes and Innovation
9. Public Funding of Research
10. Innovation and Inequality
11. Economics of Science

If you have any questions about the content, please let me know.

(for a preliminary reading list, please see the next page)

Reading List

a) Textbooks

Angrist, Joshua and Jörn-Steffen Pischke (2008). "Mostly Harmless Econometrics", Princeton University Press.

Scotchmer, Suzanne (2004). "Innovation and Incentives", MIT Press.

b) General Reading

Arrow, Ken (1962), "Economic Welfare and the Allocation of Resources for Invention," in *The Rate and Direction of Inventive Activity*: 609-619, National Bureau of Economic Research.

c) Papers for the Tutorials by topic (preliminary, final decision announced 2 weeks in advance)

2. Bloom, Nick, Jones, Charles I., Van Reenen, John, and Webb, Michael (forthcoming). „Are Ideas Becoming Harder to Find?“, *American Economic Review*.

3. Kogan, Leonid, Papanikolaou, Dimitries, Seru, Amit, and Stoffman, Noah (2017). „Technological Innovation, Resource Allocation, and Growth“, *The Quarterly Journal of Economics*, 132(2), 665-712.

4. Agarwal, Ruchir and Patrick Gaule (2018). "Invisible Geniuses: Could the Knowledge Frontier Advance Faster?" IMF Working Paper No. 18/268

5. Moser, Petra, Alessandra Voena, and Fabian Waldinger (2014). "German Jewish Émigrés and US Invention", *American Economic Review* 104(10): 3222–3255.

6. Hvide, Hans K., and Benjamin F. Jones (2018). "University Innovation and the Professor's Privilege", *American Economic Review* 108.7: 1860-98.

7. Sampat, Bhaven and Heidi L. Williams (2019). "How Do Patents Affect Follow-On Innovation? Evidence from the Human Genome", *American Economic Review* 109(1): 203–36.

8. Moretti, Enrico and Daniel J. Wilson (2017). "The Effect of State Taxes on the Geographical Location of Top Earners: Evidence from Star Scientists", *American Economic Review* 107(7): 1858–1903.

9. Azoulay, Pierre, Joshua S. Graff Zivin, Danielle Li, and Bhaven N. Sampat (2019). „Public R&D Investments and Private-sector Patenting: Evidence from NIH Funding Rules“, *Review of Economic Studies* 86(1): 117–152.

10. Jaravel, Xavier (2019). "The Unequal Gains from Product Innovations: Evidence from the U.S. Retail Sector", *Quarterly Journal of Economics* 134(2): 715–783.