

# Course Syllabus

E5104 Economics of Innovation

University of Mannheim, Department of Economics

Version: March 10, 2022

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## Course

Course Number/Section: E5104

Course Title: **Economics of Innovation**

Term: **FSS 2022**

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## Course Meeting Time

Thursdays, 10:15 – 11:45 a.m., in HS 001 (L7, 3–5) and a Zoom room:

**Zoom room (ZOOM-Lehre-122)**

Meeting ID: 64182498047

Passcode: 663729

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## Contact Information

Instructor: Bernhard Ganglmair

Instructor URL: <https://bganglmair.github.io>

Email: [ganglmair@uni-mannheim.de](mailto:ganglmair@uni-mannheim.de)

Office Hours: by email appointment

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## Course Pre-requisites, Co-requisites, and/or Other Restrictions

E601-603 (or equivalent, i.e., advanced microeconomics, advanced macroeconomics, and advanced econometrics; this course is only suitable for Economics students)

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## Course Description

This course gives an introduction to the economics of innovation. It provides an overview of the traditional literature and recent extensions, linking the theory to its empirical applications. The list of topics includes: the innovation process, effects of market structure on innovation, diffusion of R&D, innovation strategy, innovation policy, IP rights, the patent system, markets for technology, technology standardization. The aim is to provide students with the knowledge of the standard theoretical and empirical models and approaches and introduce them to modern research questions.

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## Student Learning Objectives/Outcomes

Comprehensive knowledge of the core topics in innovation economics and their empirical applications. Understanding of how the current literature can be extended in both theory and empirical applications.

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## List of Topics

1. The innovation process (chapter 2)
2. Determinants of innovation: Supply & demand (chapter 3)
3. Overview of IP rights (chapter 4)
4. Market structure and innovation (chapter 5)
5. Diffusion and networks (chapter 7)
6. Innovation strategy (chapter 8)
7. Overview of Innovation policy options (chapter 10)
8. Patents, utility models, and design rights (chapter 11)
9. Trademark and brands (chapter 12)
10. Alternatives to IP (chapter 14)
11. Strategic patenting (chapter 18)
12. Patent litigation and enforcement (chapter 19)
13. Markets for technology and sharing of IP, joint patenting, and patent pools (chapter 20)
14. Technology standards and standard-relevant patents (chapter 21)

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## Academic Calendar (tentative!)

DATE	VENUE	TOPICS
February 17	hybrid	Logistics, introduction
February 24	hybrid	Innovation Process
March 3	online only	Determinants of innovation
March 10	hybrid	Overview of IP rights
March 17	online only	Market structure and innovation
March 24	hybrid	Diffusion
March 31	hybrid	Innovation strategy
April 7	online only	Innovation policy
EASTER BREAK		
April 28	hybrid	Patents, utility models, design rights
May 5	hybrid	Trademarks; Alternatives to IP
May 12	online only	Strategic patenting
<b>Term paper proposal due</b>		
May 19	online only	Patent litigation/enforcement
ASCENSION		
June 2	hybrid	Markets for technology; sharing of IP
<b>July 15</b>		<b>Term paper due</b>

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## Textbook and Materials

The course follows the textbook by Bronwyn Hall and Christian Helmers (“The Economics of Innovation and Intellectual Property,” Oxford University Press, forthcoming), complemented by research articles and handbook chapters. Draft chapters of the textbook are made available to the students on the Ilias course platform.

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## Grading Policy

Grades will be based on assignments (50%) and a term paper (50%)

- *Assignments*: Five (short) assignments, due 1 week after posting. One of these five assignments will be an ongoing assignment throughout the semester: two one-page comments with feedback on the textbook chapter. Students choose the chapters.  
All assignments are submitted in PDF format, type-written, via email to [ganglmair@uni-mannheim.de](mailto:ganglmair@uni-mannheim.de).
- *Term paper*: Students will submit a term paper in which they examine a question related to the economics of innovation using empirical methods. The term paper is due on **July 15, 2022**. Students will submit a 1-page proposal of their term paper by **May 12, 2022**. We will talk about format, expectations, data sources, methodology in class. We will schedule 1–2 additional Zoom meetings for individual term-paper discussions.

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## Course & Instructor Policies

Flexibility on due dates is possible if you have a good reason. Class attendance is **not optional**. I expect you to come to class prepared. This means, you have read the reading assignments, you have an opinion, and you are prepared to answer questions. I have a strict **no-extra-credit** policy!

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## Classroom Etiquette and the Honor Code

Students are expected to abide by University of Mannheim’s rules and regulations and general guidelines of academic integrity.

**These descriptions and timelines are subject to change at the discretion of the Professor.**