College of Europe
Collège d'Europe
Brugge
Natolin

ECTS CARD

STUDY PROGRAMME	ACADEMIC YEAR	SEMESTER
EUROPEAN ECONOMIC STUDIES	**2025 - 2026**	**2**

COURSE TITLE

PROMOTING INNOVATION IN THE EU

COURSE PROFESSOR	COURSE ASSISTANT
BEATRICE DUMONT	**DMYTRO KAZAKOV**
NATURE OF COURSE (COMPULSORY, ELECTIVE)	LANGUAGE OF INSTRUCTION
COMPULSORY	**ENGLISH**

ECTS CREDITS

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1. COURSE OBJECTIVE

The course aims at:

- analyzing the economics mechanisms and institutions governing the production, use and diffusion of information and knowledge.
- Assessing the *usus* and *abusus* of IPRs.
- questioning the effectiveness of innovation policies and intellectual property rights: What objectives should they pursue and with what types of instruments?

This course is also designed to familiarize the students with a "middle ground" regarding patents. It moves away from a "traditionalist" conception which, by insisting on the incentivizing role of patents, tends to neglect their informational role, especially as a signal. Without contesting the relative disconnect between the upward demography of patents and the significantly more moderate productivity gains, this course proposes an alternative interpretation to that of the "abolitionists." It suggests that the position of patents within the system of innovation is renewing itself, with the shift toward a more fragmented, more intermediated innovation that is also more open, which guides the contemporary evolution of the most developed economies.

2. LEARNING OUTCOMES

Upon successful completion of the course, students will possess:

- a sound knowledge of innovation economics & the economics of IPRs;
- a deep understanding of the economic debate on the question whether and why Europe is lagging behind in terms of innovation;
- a critical appreciation of issues related to the interaction between antitrust and IPRs.

3. COURSE CONTENT

Part 1/ Economics of innovation

- **CHAPTER 1: The importance of innovation activities in the economy**

1.1. Why study innovation?
1.2. Definitions
1.3. Questioning

- **CHAPTER 2: Measurement and Monitoring of innovation**

2.1. The macroeconomic approach based on national accounts data
2.2. The micro-economic approach on patent data
2.3. A synthetic approach: the European scoreboard innovation

Part 2/ Economics of IPRs

- **CHAPTER 3: An Introduction to IPRs**

3.1. A primer on IPRs
3.2. IP stats at a glance
3.3. Sum up

- **CHAPTER 4: Patents as an (imperfect) answer to the problem of encouraging innovation**

4.1. The lack of appropriability at the heart of the problem
4.2. A first solution: innovation prizes
4.3. A second solution: patents
4.4. Comparison between innovation prizes and patents

- **CHAPTER 5: Patent delimitation**

5.1. The optimal patent duration/length
5.2. The optimal patent height
5.3. The optimal patent breadth

- **CHAPTER 6: Sequential innovations and IPRS**

6.1. "Standing on the shoulders of giants"
6.2. The rise of hold-ups
6.3. The role of Patent Assertion Entities (PAEs)

- **CHAPTER 7: Competition and patents (*)**

7.1. The tragedy of the anti-commons
7.2. Patent pools
7.3. The "common pool" problem.

- **CHAPTER 8: Competition policy and IPRs**

8.1. IP and competition in theory
8.2. Standard essential patents (SEPs) and FRAND licenses
8.3. The availability of injunctions
8.4. "Pay-for-delay" settlements

The content of the chapters and the level of modelling will be adapted depending on students' previous knowledge. Due to time constraints, the micro-economic analysis of innovation (e.g. notions linked to Product innovation and differentiation, Innovation and risk-taking & the Financing of innovation) will not be dealt with in the course.

(*) Depending on time, this chapter might not be covered.

4. TEACHING METHOD(S)

Contact hours: 20h

Lectures*:* The content of the teaching will be both theoretical and empirical. The approach will be mainly based on economic principles and will focus on markets, incentives and strategic interactions. However, some legal aspects will be presented. The form adopted for this course will be deliberately interactive. Students are therefore expected to participate actively in the course and express their views. They may be asked to solve exercises during and in between classes. The course is designed to challenge and develop analytical skills.
Prior reading of the material is essential.

Assignment and in-class presentation:

- Students (in a team of 2) will have to make an oral presentation.
- The composition of each team will be determined by the Academic Assistant in charge of the course;
- Each team will have 2 weeks to prepare for this oral presentation (20 minutes PowerPoint presentation, 10 minutes Q&A);
- The Professor in charge of the course and fellow students are expected to give feedback on the work presented.

- The grade for the oral presentation will be based on the structure & quality of the arguments presented both in written and orally.

5. COURSE MATERIALS

Lecture notes and readings. The readings will be made available through the course web.

Recommended readings:

- Baudry, M. & B. Dumont (2017), *Patents : Prompting or restricting innovation?,* ed. John Wiley & Sons, 274p.
- Bessen, J.E & E. Maurer, (2009), *Patent failure: How judges, bureaucrats and lawyers put innovators at risk*, Princeton University Press, 352p.
- Boldrin, M. & D.K. Levine, (2008), *Against intellectual property*, Cambridge University Press, 312p.
- Hall, B.H. & Ch. Helmers, (2024), *The economics of innovation and intellectual property*, Oxford University Press.

6. EVALUATION

The evaluation will be based on:

- A **2-hours closed-book written exam** (75% of the grade), which will take place during the May-June examination session. The exam will consist of 3-4 questions. The grade will be based on the structure & quality of the arguments presented.

- **Assignment with an oral presentation** (25% of the grade).

Students who do not pass the course in the first examination session take the exam in the second examination session (resit), which according to the Study Regulations counts for 100% of the final course grade.

7. FURTHER SPECIFICATIONS

In this course, the use of generative artificial intelligence (genAI) is **strictly prohibited** at all stages of the work process on the in-class oral presentations. According to art. 38 of the Study Regulations, prohibited use means that *"all tasks related to an assignment, from planning, conceptualisation to research and writing, must be completed without any support of genAI."*

Failure to respect these rules will be considered academic misconduct and be sanctioned in line with the Study Regulations (Section 4.4.). The use of AI-powered tools for grammar checking or reference management is permitted.

Throughout the whole duration of the exam, all the mobile phones and other electronic devices (except the laptop which you take the exam on) need to be put in silent mode and be kept in your bag. If you want to take and upload pictures to the exam, e.g. graphs, please raise your hand and wait for an explicit

authorisation of a supervisor. Any other unauthorised usage and/or possession of phones and/or other electronic devices throughout the entire duration of the exam (inside or outside of a classroom) will be considered as (attempted) cheating and lead to a mark of 0 (under Art. 30b of the Study Regulations).

For the detailed rules on the (digital written) examinations at the College of Europe, please refer to the provisions of the Study Regulations and *Dispositions particulières.* Students are responsible to have read and complied with the applicable rules.