

Course title: Innovation and the Law. How Technology Changes the Legal System

Language of instruction: English

Professor: Carlos Gómez

Professor's contact and office hours: by appointment

Course contact hours: 45

Recommended credit: 6 ECTS credits

Course prerequisites: There are no prerequisites for this course

Language requirements:

Recommended level in the European Framework B2 (or equivalent: Cambridge Certificate if the teaching language is English or DELE).

Course focus and approach:

The course emphasizes the impact of the so-called 'new technologies' in the traditional legal institutions. The course focuses on contracting, property rights, liability issues and data protection considering how the technology challenges the way in which the legal system protects personal rights and promotes innovation.

Course description:

The course aims to give the students a general overview of the core legal institutions, while introducing the students to the main legal problems attached to the new technologies. The reading assignments and the classroom discussions will illustrate how technology changes traditional legal concepts and the way in which the legal rules are applied.

A basic introduction to contracts, property, torts from a comparative perspective will be followed by an explanation of the relevant technologies and their implications in the legal understanding of the core legal topics. In addition, the course will focus on the current trends of the harmonization process in order to give a common response to technology challenges.

The course provides a general overview of the problems arising from the interaction between technology and the law. The general legal analysis of contracts, torts and property will be applied to the challenges posed by smart and relational contracts, the interaction between big data and competition law, the internet of things and the application of products liability and insurance to fully automated devices. Sharing and collaborative economy formulas will also be analyzed in the course.

Learning objectives:

At the end of this course the students will be able to:

- a) Identify the main features of the different legal traditions existing in the world.
- b) Understand the legal issues derived from some disruptive technologies.
- c) Assess to what extent new technologies may change the traditional legal concepts.

Course workload: Students are required to read a selection of texts and participate actively in the class. Students will have to prepare a final exam and will also conduct a research paper project on one of the topics covered by the course.

Teaching methodology: Classes will enhance debate and critical thinking. After a short explanation of the functioning of the legal institutions challenged by different technologies, the problems and potential solutions will be commented in the class.

Assessment criteria:

The method of assessment should be listed here and include at least three grades. Class participation should also be evaluated.

Example:

Midterm exam: 30%

Final exam: 30%

Class participation: 10%

Term paper (and paper draft): 30%

BaPIS absence policy:

Attending class is mandatory and will be monitored daily by professors. Missing classes will impact on the student's final grade as follows:

Absences	Penalization
Up to two (2) absences	No penalization
Three (3) absences	1 point subtracted from final grade (on a 10-point scale)
Four (4) absences	2 points subtracted from final grade (on a 10-point scale)
Five (5) absences or more	The student receives an INCOMPLETE ("NO PRESENTADO") for the course

The BaPIS attendance policy does not make a distinction between justified and unjustified absences. All absences—whether due to common short-term illnesses or

personal reasons—are counted toward the total amount and cannot be excused. Therefore, students are responsible for managing all their absences.

Only in cases of longer absences—such as hospitalization, prolonged illness, traumatic events, or other exceptional situations—will absences be considered for exceptions with appropriate documentation. The Academic Director will review these cases on an individual basis.

Students must inform the Instructor and the International Programs Office promptly via email if serious circumstances arise.

Attendance Policy and Religious Observances:

In line with the UPF Code of Ethics and the principles of equality and non-discrimination, our attendance policy considers the accommodation of students' needs for religious reasons or specific religious festivities.

Students may self-manage their attendance and miss some sessions without penalty, as outlined in each syllabus. However, if a student anticipates that their religious obligations may significantly affect their participation in a course, and the standard policy does not fully accommodate their situation, they must inform the course professor **at the beginning of the term** to discuss suitable alternatives. **It is the student's responsibility to communicate these needs at the start of the term.** The Academic Director is also available to support both students and professors in finding a workable solution that ensures the student can meet the course objectives.

Classroom norms: No food or drink is permitted in class.

Weekly schedule:

WEEK 1: The Blockchain Protocol and cryptocurrencies

Reading: Juan José Ganuza, Gerard Llobet (editors), "Economic Analysis of the Digital Revolution", Funcas, 2018 (selected chapters).

WEEK 2: How Smart Contracts use the Blockchain technology

Reading: ETLA Report No. 68, "How will Blockchain Technology Affect Contractual Practices?", 2017.

WEEK 3: Legal and technological challenges involving Smart Contracts

Reading: Michelè Finck, "Blockchain Regulation", Max Planck Institut for Innovation and Competition - Research Paper No. 17-13.

WEEK 4: The End of Ownership? How owners and things interact in the cloud

Reading: Aaron Perzanowski and Jason Schutz, *The End of Ownership*, Massachusetts Institute of Technology, 2016 (selected chapters).

WEEK 5: How competition rules work in the new technological world

Reading: European Commission, "Competition policy for the digital era"

WEEK 6: On "Circular Economy" and sustainability concerns

Reading: Communication of the European Commission "Closing the loop - An EU action plan for the Circular Economy"

WEEK 7: When devices go crazy: Products Liability issues

Reading: European Commission, "Liability for Artificial Intelligence and Other Emerging Technologies", 2020.

WEEK 8: The European approach to Artificial Intelligence: how to control machines by legal rules.

WEEK 9: On the liability of online platforms.

WEEK 10: How far?

Reading: Christopher Markou, Simon Deakin, "Ex Machina Lex: The Limits of Legal Computability"

Last revision: March 2025

Required readings:

Readings will be uploaded by the professor to the intranet of the course

Recommended bibliography:

- Eli M. Salzberger (Ed.), "Law and Economics of Innovation", Edward Elgar Publishing, 2012.
- Dariusz Szostek, "Blockchain and the Law", Nomos Verlag, 2019.
- Jan De Bruyne, Cedric Vanleenhove (editors), "Artificial Intelligence and the Law", Intersentia, 2021.
- Horst Eidenmüller, Gerhard Wagner, "Law by Algorithm", Mohr Siebeck, 2021.