UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

SYLLABUS DEL CORSO

Informatica Giuridica - M-Z

2526-1-E1402A005-MZ

Learning objectives

The goal of the course is to provide those preparing for the exam with the tools to:

1. **Know and understand** the theories, fundamental principles, legal sources, and case law related to new technologies. In particular, the course will explore: online identity, e-democracy, electronic signatures, cybersecurity, computer crimes, artificial intelligence, predictive justice, and information technology in the courts, fake news and digital populism.

2. **Understand and develop** the main relationships between law and computer science.

3. **Acquire the ability** to understand current realities and how ethical, cultural, and social principles and values interact with an information-based society.

4. **Develop a solid independence of judgment** on the topics covered in the course, including the relationship between ethics, law, social norms, and legal informatics.

5. **Gain communication skills** to express concepts related to issues raised by the digital society.

6. **Learn the concepts** needed to understand and use legal informatics in the best possible way, not only in professional contexts but also in everyday life.

Contents

The course aims to address the legal, ethical, and social issues raised by legal informatics.
In particular, it will highlight the aspects that can improve the justice system and the potential offered by the

development of new technologies, as well as the challenges that technological progress poses both to the law — in terms of protecting fundamental rights — and to socio-cultural contexts, with regard to ethical and social issues.

Detailed program

The course is divided into two modules.
The first module (32 hours) is taught by Prof. Dameno and examines a number of ethical, legal, and social issues raised by new technologies, and in particular by artificial intelligence. These include:

1. discrimination in access to new information technologies;
2. democracy and information technologies;
3. the right to online identity;
4. electronic signatures;
5. the right to privacy;
6. the right to be forgotten in the digital environment;
7. predictive justice;
8. the crimes of cyberstalking and cyberbullying;
9. digital surveillance;
10. is it possible to protect oneself from fake news?;
11. digital populism;
12. discrimination and artificial intelligence.

The second module (16 hours) is taught by Prof. Mattia Sgrò and is structured as follows:

1. INTRODUCTION TO COMPUTER SCIENCE:
   What computer science is; “information theory”;
   computer data: what they are, how they are structured and composed, physical storage media, and the cloud.
   Basic notions of computational logic.
2. CRYPTOGRAPHY:
   Cryptography (texts, data);
   use of cryptography in emails;
   digital signatures with the electronic identity card (CIE): how they work, what they guarantee, etc.;
   use of the digital signature.
3. RESEARCH:
   How a Google search works, basic notions of logic, an introduction to PageRank;
   how to set up academic research (sources, tools, etc.);
   Google Scholar and legal databases.

Prerequisites

None

Teaching methods

The course is divided into 24 lessons of two hours in presence (except for problems with the organization of

classrooms).
The first 4 lessons will be of a traditional and non-interactive type: the basic concepts will be explained. The remaining lessons will be held interactively.

Please check the class schedules and classroom assignments, as they may change during the semester due to a shortage of available classrooms.

Assessment methods

The exam consists of a written test and an oral exam.

The following skills are assessed:

- the knowledge learned,
- the language used,
- the ability to discuss and argue
- autonomy of judgement
- communication skills

Textbooks and Reading Materials

Some articles (or links from which they can be downloaded) will be made available on the course's e-learning page.

Sustainable Development Goals

QUALITY EDUCATION | GENDER EQUALITY | PEACE, JUSTICE AND STRONG INSTITUTIONS