The course will comprise four three-hour seminar sessions.

Session 1. Introduction to Computational Models of Legal Reasoning: Lessons Learned about Legal Rules and Cases. Provides an introduction to computational models of reasoning with legal rules or cases and explains some lessons AI and Law researchers have learned about each type of reasoning that should be of significance to law students.

Session 2. Defeasible Legal Reasoning with Argument Schemes: Lessons Learned about Legal Argument. Addresses how recent advances in argumentation theory, argument schema and critical questions, and diagrammatic argument representations, impact ways in which researchers computationally model legal argument and the interpretation of legal norms, and design, implement, and evaluate legal expert systems.

Session 3. Legal Information Retrieval, Information Extraction, and Text Processing: Lessons Learned about Legal Digital Documents Technologies. Surveys the state of the art in legal information retrieval and information extraction from texts, including from comparatively well-structured texts such as legal statutes, regulations, and case opinions versus comparatively unstructured texts as in e-Discovery, which involves retrieving, often from enormous databases of digital information, all documents that may be relevant to legal issues in particular litigation contexts.

Session 4. The Future of AI and Law: Bridging Computational Models and Legal Texts. Discusses prospects and techniques for enabling computational models of legal reasoning to work directly and automatically with legal texts.
**Introduction to AI & Law:** Artificial Intelligence and Law is a subfield of AI research that focuses on computationally modeling legal reasoning for the purpose of building tools to assist in legal practice and pedagogy and of studying legal reasoning in order to contribute to cognitive science and jurisprudence. From the viewpoint of cognitive science and AI, legal reasoning is especially interesting because it falls somewhere between the comparatively well-structured domains of mathematical and scientific reasoning for which AI researchers have developed useful methodologies and the comparatively unstructured common sense domains of ordinary discourse that AI researchers someday hope to model. From a jurisprudential viewpoint, AI and Law offers the promise of embodying theories in a computational form that can be applied systematically to a range of examples; as the theories fail on the margins, the computational models can be improved in an effort to make scientific progress in studying law.

**Course Materials:** Readings will be distributed electronically via a TWEN course website at lawschool.westlaw.com. In order to access the site, students will need to use a Westlaw password and a course password, which the instructor will distribute via email. Readings marked with an asterisk [*] below are highly recommended. Unmarked readings are required.

**Course requirement:** In order to stimulate classroom discussion and foster understanding of the readings, for each session, each student should prepare a one-page critique for at least one reading marked [*]. These one-page critiques should be submitted electronically to the instructor the day before each seminar session. The critiques should comprise four parts:

(a) a brief statement of what the paper is about, and short descriptions of:
(b) the strengths of the approach,
(c) the weaknesses of the approach, and
(d) the relevance of the paper to some project, paper, or topic of interest to the student.

Please send an email to monica.palmirani@unibo.it to facilitate organizing the lectures.
**PROGRAMME**

**Session 1**

1st December
14:00-17:00
Aula 4

**Introduction to Computational Models of Legal Reasoning: Lessons Learned about Legal Rules and Cases**

Readings to be discussed:


**Session 2**

2nd December
14:00-17:00
Aula 4

**Defeasible Legal Reasoning with Argument Schemes: Lessons Learned about Legal Argument**

Readings to be discussed:


**Session 3**

3rd December
14:00-17:00
Aula 4

**Legal Information Retrieval, Information Extraction, and Text Processing: Lessons Learned about Legal Digital Documents Technologies**

Readings to be discussed:


**Session 4**

4th December
14:00-17:00
Aula 4

**The Future of AI and Law: Bridging Computational Models and Legal Texts**

Readings to be discussed: