



**Universität
Zürich** UZH

Continuing Education

Legal Data Science

Certificate of Advanced Studies CAS 2026

Faculty of Law

University of Zurich

Program Overview

Why this CAS?

In this CAS you will learn how to

- understand and critically assess statistical analyses in legal contexts, such as court cases and expert reports.
- use basic Python tools to automate repetitive legal tasks.
- apply basic statistical and machine learning tools to obtain insights from legal data.
- use large language models for legal tasks responsibly.

Program Overview

The CAS in Legal Data Science is a practical training program for legal professionals who want to analyse cases, contracts, and regulatory materials at scale. Participants learn Python fundamentals and the end-to-end pipeline: data acquisition, preprocessing, quantitative analysis, visualisation, and reporting. The focus is on usable skills – building small tools, validating results, and communicating findings to legal audiences – grounded in legal requirements (data protection, confidentiality, governance) and professional ethics.

The program consists of five modules, including a Capstone Project, and is completed over two semesters starting each September. Participants benefit from continuous academic support and a flexible study structure, with mandatory in-person attendance for a small number of sessions (taking place on Friday afternoons and Saturday mornings). Upon successful completion, participants receive a Certificate of Advanced Studies UZH in Legal Data Science (12 ECTS Credits).

Core Topics

- Legal Data Science & evidence-based legal reasoning
- Programming & computational thinking for lawyers
- Data analysis & machine learning in legal contexts
- Legal Natural Language Processing (NLP) and Large Language Models (LLMs) in legal practice
- Capstone Project on a real-world legal question

No prior programming or statistics knowledge is required.

Lecturers

The pool of lecturers consists of renowned lecturers from various disciplines (including law, statistics and computer science).

- Tilmann Altwicker, Prof. Dr., Chair for Legal Data Science and Public Law
- Alberto Bacchelli, Prof. Dr., Head of Zurich Empirical Software Engineering Team
- Ephraim Seidenberger, M.Sc., Academic Assistant at the Chair for Legal Data Science and Public Law
- Zhivko Taushanov, Dr., General Manager of the Center for Legal Data Science

Program Structure

The coloured boxes illustrate the thematic modules and topic areas covered in the CAS program. In total, the CAS includes 20 lectures of 90 minutes each, spread across four modules and complemented by self-study, practical assignments, and a Capstone Project module.

Together, these components correspond to 12 ECTS credits.

Module Overview

10 half-days on-site course

Module 1: Introduction to Legal Data Science

Foundations of Legal Data Science	Evidence-Based Legal Reasoning	Legal Data	Basic Probability & Data Science Techniques	Data Law, Ethics, and Communication
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Module 2: Introduction to Programming and Computational Thinking

Computational Thinking for Legal Professionals	Python Programming Fundamentals	Core Data Structures for Legal Data	Text and File Processing for Legal Materials	Responsible Use of AI Programming Assistants
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Module 3: Data Analysis and Machine Learning

Data Preparation and Exploratory Analysis	Statistical Foundations for Legal Data	Statistical Inference and Sampling	Regression Analysis Basics	Basic concepts in Machine Learning
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Module 4: Advanced Legal NLP and use of LLMs

Revision of Python for Text-Based Legal Data	Advanced Legal Natural Language Processing (NLP)	Large Language Models in Legal Practice	Local deployment of Large Language Models	APIs and Retrieval-Augmented Generation (RAG)
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Module 5: Capstone Project

Applied Legal Data Science Project	Practice-Oriented Project Design	Legal Data Analysis and Implementation	Supervised Research and Professional Feedback	Transparent Reporting, Ethics and Data Protection
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CAS in Legal Data Science

Key Facts

Study Format

Taught entirely in English, the CAS follows a blended learning approach combining in-person sessions and podcasts.

Duration

The program starts in September and ends in June (including examination days). Courses will take place on 10 half-days over a total of 5 weekends on Friday afternoons and Saturday mornings. The course consists of 20 lectures of 90 minutes each, spread across five modules, corresponding to approximately 30 hours of direct contact time.

Degree

Certificate of Advanced Studies UZH in Legal Data Science (12 ECTS Credits)

Target Audience

This CAS is designed for legal professionals who want to analyse cases, contracts, and regulatory materials at scale. Professionals holding a university degree in law or a related field, including:

- Practicing Lawyers, Judges, Legal Clerks, or similar professionals
- Doctoral Students and Postdocs with an interest in applying data science methods in legal contexts

Costs

Early Bird fee is set at CHF 9'250.–, application deadline: 14 June 2026

The participation fee is set at CHF 9'750.–, application deadline: 16 August 2026.

A limited number of spots are reserved for participants who are eligible for a reduced fee: Reduced participation fees apply to UZH Doctoral Students (CHF 1'500.–) and UZH Employees, UZH Postdocs, Non-UZH Doctoral Students, and Court Clerks (CHF 3'500.–).

Dates

Application deadline «Early Bird»:

14 June 2026

Application deadline regular: 16 August 2026

The CAS starts at the end of September 2026.

For the detailed course dates, please visit the website: www.clds.uzh.ch/en/CAS

More Information

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All information and content are subject to change.