But wait, there is more...

Scholarly Projects

We want to give our students the opportunity to focus entirely on their studies while simultaneously gaining invaluable, hands-on experience. Each year, we will offer several Scholarly Projects. These are 2-year projects where students work under the guidance of a faculty members on a real-world industry or research problem as part of their coursework (homework, Project course, Master's thesis). Students that participate in Scholarly Projects are provided with financial support, including tuition, making these projects an attractive option for international students.

Skill development opportunities

Throughout the year, we organize introductory and advanced workshops, tutorials, and lectures in the broad field of data science. These provide great opportunities to improve your skills and interact with researchers and professionals.

"Our Master of Computer and Data Science is a highly-selective program for students with a strong background in mathematics, computer science, and/or applied statistics. The program features a demanding curriculum that focuses on equipping the students with the theoretical foundations and practical skills that they need to become leading data science professionals, researchers or teachers of data science."

Quick facts:
- 2nd-cycle degree program.
- Full-time, 2 years, 120 ECTS.
- All courses are taught in English.
- Open to 1st-cycle graduates.
- Enrolling at least 18 students.
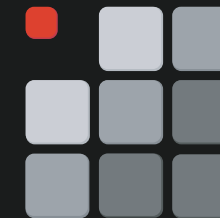
Data Science
MASTERS

University *of Ljubljana*
Faculty *of Computer and*
Information Science

For more information on how to apply visit **datascience.fri.uni-lj.si**.

Curriculum

From Data To Science

Core courses – building the foundation

To be able to work with data, a data scientist must know the tools and best practices for acquiring, storing, exploring, transforming, and analyzing data (**Introduction to Data Science**).

To understand modern quantitative science, data scientists must first master the building blocks: analysis, matrix and tensor algebra, optimization (**Mathematics I & II**), probability - the language of uncertainty, and statistics – how to reason with this uncertainty (**Principles of Uncertainty**).

A data scientist should also be equipped with a broad set of tools for tackling prediction, forecasting, pattern recognition, and other typical analytical tasks (**Machine Learning for DS I**).

And finally, the students can apply these fundamentals to solving a practical problem from research or industry (**Project Course**).
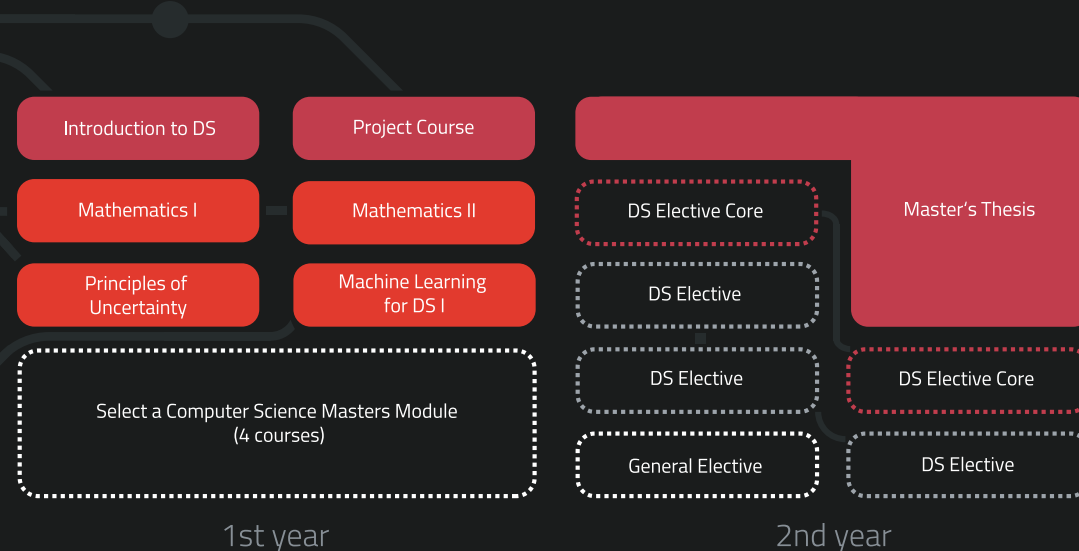
Elective core – getting serious about data science

Machine Learning for DS II
Selected advanced topics, recent developments, and preparation for further study and research in the field of machine learning.

Deep Learning
The family of machine learning methods behind the recent breakthroughs in areas such as autonomous driving, computer vision, and NLP.

Big Data
Non-relational databases, data management, cloud storage, distributed analytics, and other things you should know when the data are just too big.

Bayesian Statistics
Learn probabilistic programming, how to build and apply statistical models, and how to provide statistical support to researchers and professionals.

Electives – what is your favorite subject area

Choose from a variety of courses including Artificial Intelligence, Biometrics, Bioinformatics, Computer vision, High Performance Computing, Information Retrieval, Natural Language Processing, Network Analysis, and the remaining elective core courses.

Diagram

1st year
- Introduction to DS
- Project Course
- Mathematics I
- Mathematics II
- Principles of Uncertainty
- Machine Learning for DS I
- Select a Computer Science Masters Module (4 courses)

2nd year
- DS Elective Core
- Master's Thesis
- DS Elective
- DS Elective
- DS Elective Core
- General Elective
- DS Elective