

**SYLLABUS**

**STUDY YEAR 2024/2025**

# **Master Programme in Data Science**

## **Enrollment semester Autumn 2024**

**DATE**

**2022-10-14**

**REFERENCE NO.**

**LTU-4061-2022**

**DECISION MAKER**

**Dean of the Faculty of Humanities and Social Sciences**

## Programme content and structure

For the master degree in Systems Science with specialization in Data Science (60 Hp) the following courses are required: compulsory courses (45 Hp) and master thesis (15 Hp).

The courses in semester one give the student important concepts and principles in Data Science, as well as in depth knowledge in data mining and visualization. The second semester adds more analytics and software knowledge, whereafter a degree project is performed.

For admission to the degree project course entry requirements specified in the Course Syllabus must be completed. Information regarding the application- and admission process is given and ensured by the responsible department.

Swedish for beginners is offered to overseas campus students. The course is not included in the degree, and is read in addition to the obligatory courses.

## Credits

60 credits

## Degree

- Degree of Master of Science (60 credits) - Major; Information Systems Sciences with specialisation Data Science

## Entry requirements

Academic degree of at least 180 higher education credits, in the areas of Systems Science, Computer Science, Computer Engineering, Information Systems or equivalent. The degree shall include courses in programming and databases with a minimum of 7,5 credits each.

Good knowledge in English, equivalent to English 6

## Selection

The selection procedure is based on academic qualifications, quality and quantity aspects

### Selection group

Academic: 100%

## Compulsory courses

### Courses within major 37.5 credits

Course code	Course	Cr	Level	Comment
D7043E	Advanced Data Mining	7.5	Master's level	
D7044E	Business Intelligence	7.5	Master's level	
D7055E	Data Visualization	7.5	Master's level	
D7059E	Thesis in Data Science	15	Master's level	

### Courses in addition to major 22.5 credits

Course code	Course	Cr	Level	Comment
D7054E	Data Science Programming	7.5	Master's level	
D7056E	Predictive Analytics	7.5	Master's level	
D7058E	Text Mining	7.5	Master's level	

### Course offered outside the obligatory courses - not compulsory - For non Scandinavian students 3 credits

Selective space is 3 credits. It is mandatory to select elective courses up to the given number of credits. The given number of credits of elective courses listed must be met for degree.

Course code	Course	Cr	Level	Comment
S0046P	Swedish for International Students 1	3	Bachelor's level	Selectable

## Study schedule

**Year of study 1 Enrollment semester Autumn 2024, Is offered in 2024/2025**

Study-period	Course code	Course	Cr	Comment
1	D7043E	Advanced Data Mining	7.5	
1	D7044E	Business Intelligence	7.5	
1	S0046P	Swedish for International Students 1	3	Selectable
2	D7055E	Data Visualization	7.5	
2	D7058E	Text Mining	7.5	
3	D7054E	Data Science Programming	7.5	
3	D7056E	Predictive Analytics	7.5	
4	D7059E	Thesis in Data Science	15	Entry requirements