

**SYLLABUS**

**STUDY YEAR 2020/2021**

# **Master Programme in Data Science**

**Enrollment semester Autumn  
2020**

**DATE**

**2019-05-21**

**DECISION MAKER**

**The Board 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 students. The course is not included in the degree, and is read in addition to the obligatory courses.

## Credits

60 credits

## Entry requirements

Successful completion of a basic engineering program or a Bachelor's degree with a minimum of 180 ECTS 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 ECTS each, and a individual thesis of at least 15 ECTS. Documented skills in English language.

## Selection

The selection is based on 20-285 credits

## Compulsory courses

### Courses within major 37.5 credits

Course code	Course	Cr	Level	Comment
D7043E	Advanced Data Mining	7.5	Avancerad nivå	
D7044E	Business Intelligence	7.5	Avancerad nivå	
D7055E	Data Visualization	7.5	Avancerad nivå	
D7059E	Thesis in Data Science	15	Avancerad nivå	

### Courses in addition to major 22.5 credits

Course code	Course	Cr	Level	Comment
D7054E	Data Science Programming	7.5	Avancerad nivå	
D7056E	Predictive Analytics	7.5	Avancerad nivå	
D7058E	Text Mining	7.5	Avancerad nivå	

### 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	Grundnivå	Selectable

## Study schedule

**Year of study 1 Enrollment semester Autumn 2020, Is offered in 2020/2021**

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	