

**SYLLABUS**

# **Data Mining 2.5 credits**

## **Z0013E**

**Data Mining**

**Course syllabus admitted: Spring 2021 Sp 3 - Present**

DECISION DATE  
**2021-06-03**

# Data Mining 2.5 credits Z0013E

## Data Mining

### First cycle, Z0013E

| Education level | Grade scale | Subject         | Subject group (SCB)                       |
|-----------------|-------------|-----------------|---|
| First cycle     | U G#        | Systemvetenskap | Informatics/Computer and Systems Sciences |

## Entry requirements

In order to meet the general entry requirements for first cycle studies you must have successfully completed upper secondary education and documented skills in English language and as well as knowledge in programming (for example D0009E or D0007N) and basics in databases (eg D0004N or D0018E).

Knowledge in English, equivalent to English 6.

Alternative:

Alternative to completed course can be corresponding knowledge acquired through work within the industrial sector.

## Selection

## Examiner

Marcus Liwicki

## Course Aim

Be able to define and clarify what data mining is about

Know the general tasks and possible applications of data mining

Becoming familiar with the standard CRISP data mining approach

Be able to use one of the most frequently used toolkits in data mining, the Rapidminer.

Be familiar with standard methods and tools for text analytics

Be familiar with standard methods and tools for image analytics

## Contents

The contents of this course will cover major aspects of AI, especially data mining issues.

- Standard tools in Data Mining
- Methods for Descriptive Analytics
- Methods for Predictive Analytics
- Machine Learning
- Text Analytics
- Image Analytics

## Realization

Each course occasion's language and form is stated and appear on the course page on Luleå University of Technology's website.

The course is realized by following activities.

- Online meetings/lectures.
- Theory reflections
- Written assignments

Teaching is in English and on the Internet.

## Examination

If there is a decision on special educational support, in accordance with the Guideline Student's rights and obligations at Luleå University of Technology, an adapted or alternative form of examination can be provided. Examination consists of questions related to theory and written assignments during the course.

## Literature. Valid from Spring 2021 Sp 3

Recommended:

Pang-Ning Tan, Michael Steinbach, and Vipin Kumar: Introduction to Data Mining, Addison Wesley, 2005.

## Course offered by

Department of Computer Science, Electrical and Space Engineering

## Modules

| Code | Description                       | Grade scale | Cr  | Status    | From period | Title |
|------|-----------------------------------|-------------|-----|-----------|-------------|-------|
| 0001 | Questions and written assignments | U G#        | 2.5 | Mandatory | S21         |       |

## Study guidance

Study guidance for the course is to be found in our learning platform Canvas before the course starts. Students applying for single subject courses get more information in the Welcome letter. You will find the learning platform via My LTU.

## Syllabus established

by Jonny Johansson, HUL SRT 2021-06-03