Linnæus University

Jnr: 2017/1437-3.1.2.2

Course syllabus

Faculty of Technology
Department of Computer Science and Media Technology

2DV515 Web Intelligence, 7,5 högskolepoäng
Web intelligence, 7.5 credits

Main field of study
Computer Science

Subject Group
Informatics/Computer and Systems Sciences

Level of classification
First Level

Progression
G2F

Date of Ratification
Approved by Faculty of Technology 2017-03-06
The course syllabus is valid from autumn semester 2017

Prerequisites
At least 60 credits in Computer Science or the equivalent. The course The web as an application platform 1DV527, 7.5 credits, and 2DV600 Foundations of Software Technology, 7.5 credits, or the equivalent.

Objectives
Upon completion of the course, the student should have theoretical and practical knowledge about machine learning, data extraction and processing, search engines and recommendation systems.

The course includes the following learning outcomes:
1. Understand and practically be able to apply principles for data extraction and processing of data from the web.
2. Understand the differences between supervised and unsupervised learning, and have basic understanding of the most common algorithms in the two categories and practically be able to apply these.
3. Understand the basic principles for how search engines are constructed, and practically be able to implement these.
4. Understand the basic principles for how recommendation systems are constructed, and practically be able to implement these.

Content
The purpose of the course is to provide the student with knowledge about extraction, analysis and applications of web data.

- Extraction and processing of different types of data
- Algorithms for unsupervised and supervised learning

- Construction of recommendation systems and search engines

Type of Instruction
The teaching consists of lectures and supervision in lab room.

Examination
The course is assessed with the grades A, B, C, D, E, Fx or F.
The grade A constitutes the highest grade on the scale and the remaining grades follow in descending order where the grade E is the lowest grade on the scale that will result in a pass. The grade F means that the student's performance is assessed as fail (i.e. received the grade F).

Examination task 1 – Practical assignments (4 credits): Learning outcomes 1-3 are assessed with practical programming tasks with accompanying oral examinations. Grading scale A to F is used.

Examination task 2 – Project (3.5 credits): Learning outcome 4 is assessed with a practical project with accompanying oral examination. Grading scale A to F is used.

Course Evaluation
A written course evaluation will be carried out at the end of the course in accordance with the guidelines of the University. The course evaluation will be filed at the department.

Other
Grade criteria for the A–F scale is communicated to the student through a special document.

Required Reading and Additional Study Material
Recommended reading
Resources available on the Internet as specified on the course webpage.