

Introduction

We who work with the course



Fredrik Ahlgren

examiner/course coordinator/instructor



Mats Looek

instructor



Sebastian Hönel

instructor



Johan Hagelbäck

instructor

...and, last but not least, you!

Course Syllabus

- ✓ What is the main field of study?
 - Computer Science.
- ✓ What is the level of classification?
 - First level.
- ✓ How many credits is this course worth?
 - 7.5 credits.
- ✓ Are there any prerequisites?
 - At least 60 credits in Computer Science or the equivalent.
 - More specific, you need to know how to write web applications. The client will post requests to the server and take care of the response sent by the server. The server must use a RESTful architecture.

<https://kursplan.lnu.se/kursplaner/syllabus-2DV515.pdf>



Linnæus University

Jnr: 2019/1656-3.1.2.2

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 2017-03-06
Revised 2019-03-04 by Faculty of Technology. Prerequisites and assessment methods have changed.
The course syllabus is valid from autumn semester 2019

Prerequisites
At least 60 credits in Computer Science 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.

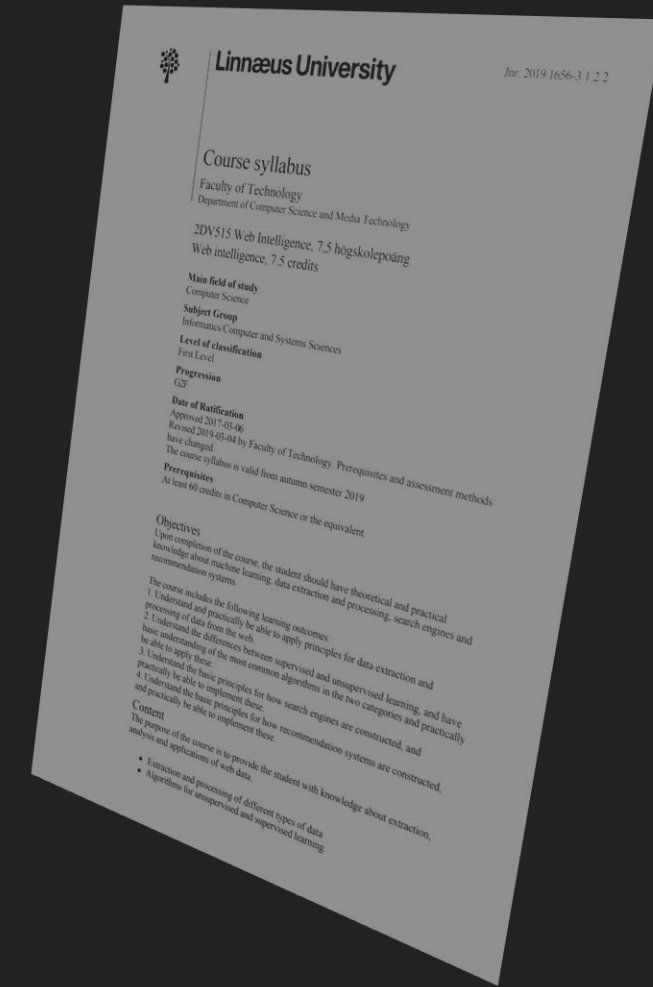
The course includes the following learning outcomes:

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.

Objectives

✓ 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.



Important resources

✓ Course website

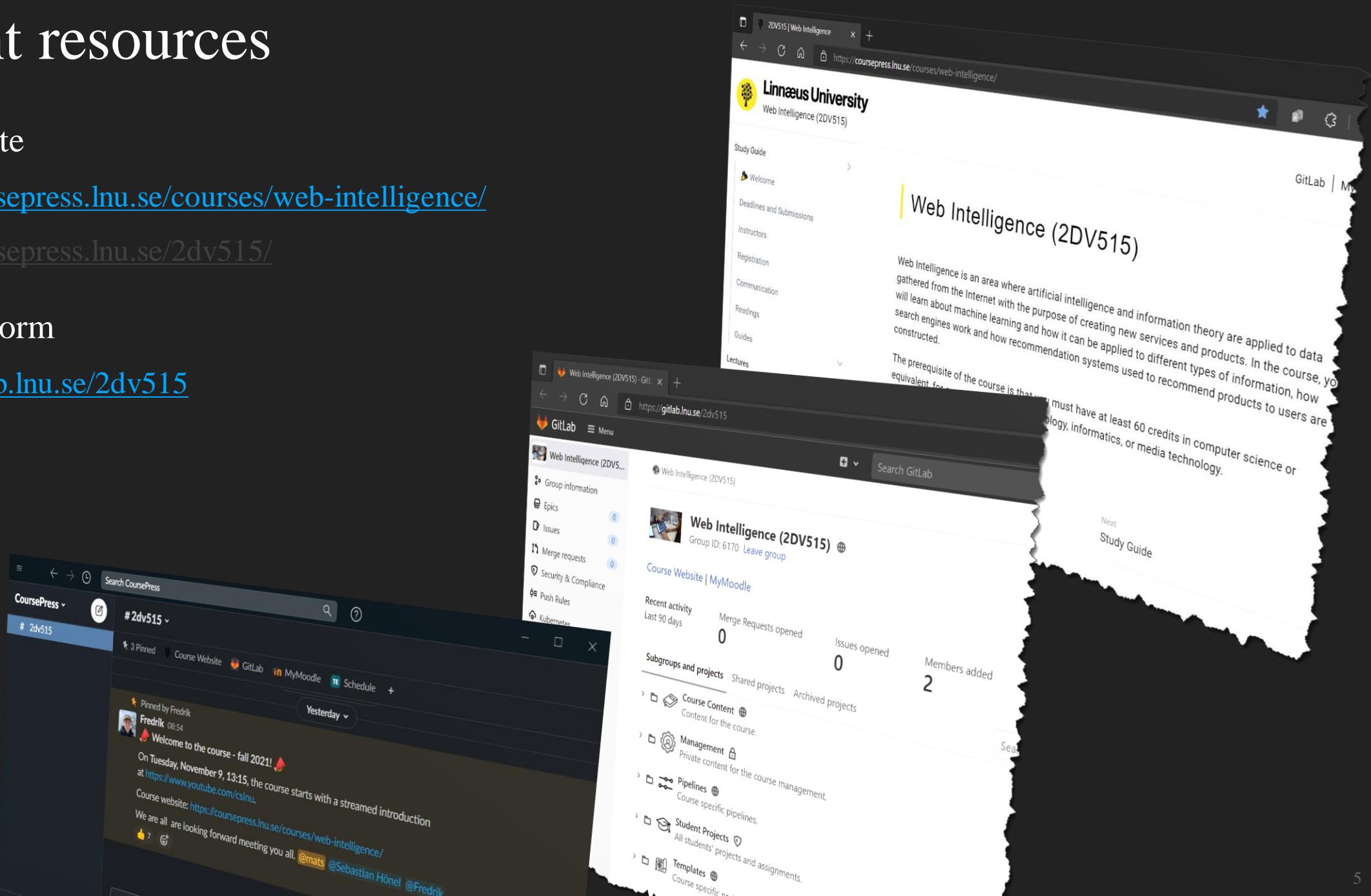
- <https://coursepress.lnu.se/courses/web-intelligence/>
- <https://coursepress.lnu.se/2dv515/>

✓ DevOps platform

- <https://gitlab.lnu.se/2dv515>

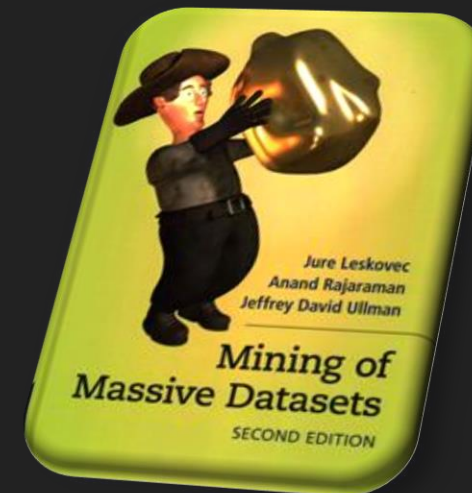
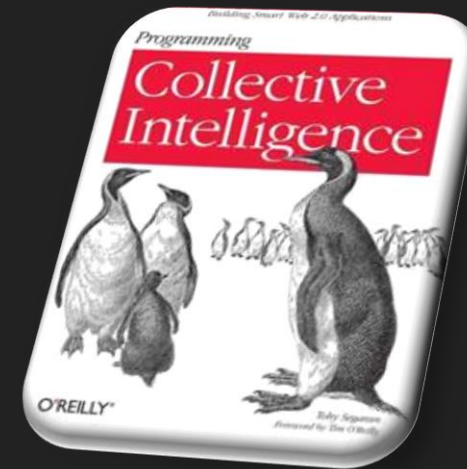
✓ Slack

- [#2dv515](#)



Recommended reading

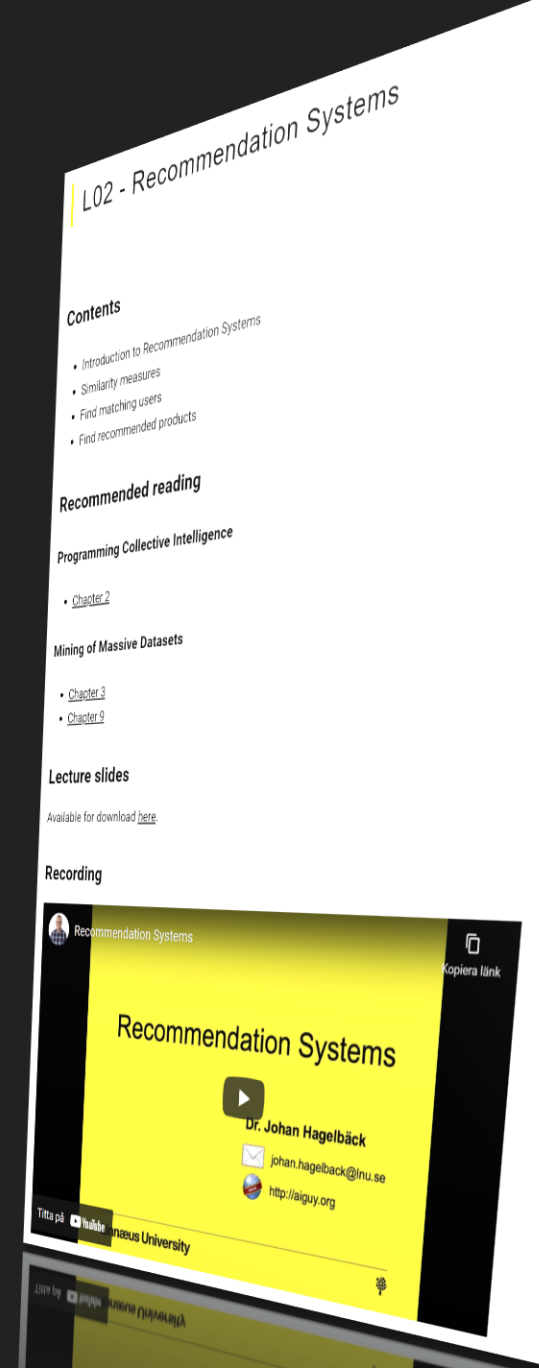
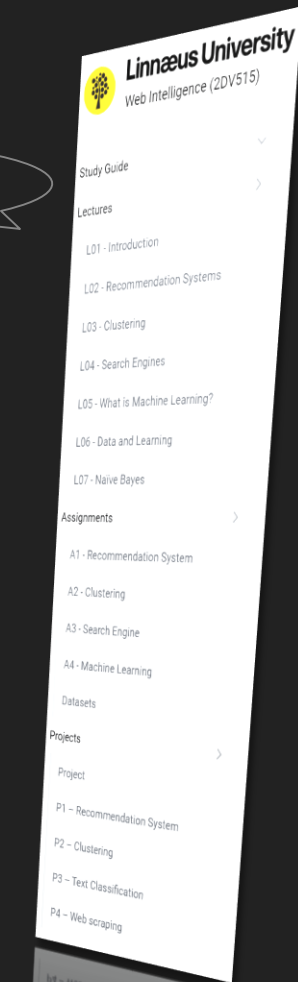
- ✓ Programming Collective Intelligence by Segaran Toby.
 - ISBN 9780596529321.
- ✓ Mining of Massive Datasets by Leskovec, Rajaraman and Ullman
 - ISBN 9781107077232.
 - <http://mmds.org/#ver21>



Course Structure

- ✓ Seven lectures
 - Recommended readings.
 - Lecture slides.
 - Recording.
- ✓ Four assignments
 - Generated projects in your GitLab group.
 - <https://gitlab.lnu.se/2dv515/student>
- ✓ One project
 - You choose one of four predefined projects.
 - A generated project in your GitLab group.
 - <https://gitlab.lnu.se/2dv515/student>

The course content



A typical lecture

Important dates and times

- ✓ All dates and times can be found in the [schedule](#).
- ✓ Exams
 - Assignments
 - A1, **course week 3**, submission deadline and oral exam (~20 minutes).
 - A2, **course week 5**, submission deadline and oral exam.
 - A3, **course week 7**, submission deadline and oral exam.
 - A4, **course week 9**, submission deadline and oral exam.
 - Project
 - **Course week 10**, submission deadline and oral exam.

Development stack

- ✓ You choose your development stack! 
- ✓ Git <https://git-scm.com/> (distributed version control system)
 - GitLab <https://gitlab.lnu.se/2dv515/> (DevOps platform)

