



# DD2301 Program Integrating Course in Machine Learning 3.0 credits

Programsammanhållande kurs i maskininlärning

This is a translation of the Swedish, legally binding, course syllabus.

If the course is discontinued, students may request to be examined during the following two academic years

## Establishment

The official course syllabus is valid from the autumn semester 2022 in accordance with the decision from the head of school: J-2022-0552. Decision date: 2022-03-28.

## Grading scale

P, F

## Education cycle

Second cycle

## Main field of study

Computer Science and Engineering

## Specific prerequisites

## Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

## Intended learning outcomes

After passing the course, the student shall be able to

- reflect on choices and possibilities in the studies;
- reflect on the ethical issues that are associated with "big data" and the choices about the gains and losses made when mass data about people is made available;
- reflect on the responsibilities when presenting machine learning results/algorithms to the public;
- reflect in a deeper way over the value of diversity and equal opportunities between the sexes in the research domain machine learning on companies, departments, and in society;
- Explain how machine learning is used outside the academic world and the consequences this has for the society and the professional responsibilities as a machine learning practitioners;
- give an account of workplaces and professions available for graduate in machine learning;

in order to

- be able to be a good student;
- be able to make ethical considerations in the working life;
- become a professional expert in the area of machine learning.

## Course contents

- The logistic and experiences of a machine learning student at KTH: courses, tracks and degree project.
- Where do machine learning graduates work? academia, industry and public sector.
- The ethics of making conclusions from experiments and results and presenting these to the public.
- Privacy, security and ethical issues around "big data".
- What machine learning can and cannot predict.
- Code of conduct for machine learning scientists.

## Examination

- UPP1 - Homework Assignments and Seminar Participation, Year 1, 1.5 credits, grading scale: P, F
- UPP2 - Homework Assignments and Seminar Participation, Year 2, 1.5 credits, grading scale: P, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

## Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.