

## Ethical Issues in AI

Etiska frågor inom AI  
6 credits

Programme course

TGTU99

Valid from: 2025 Spring semester

|  |  |                                   |
|--|--|-----------------------------------|
| <b>Determined by</b>                                       | <b>Main field of study</b>   |                                   |
| Board of Studies for Computer Science and Media Technology | Information Technology, Computer Science and Engineering, Computer Science |                                   |
| <b>Date determined</b>                                     | <b>Course level</b>  | <b>Progressive specialisation</b> |
| 2024-08-28   | Second cycle   | A1N                               |
| <b>Revised by</b>  | <b>Disciplinary domain</b>   |                                   |
|  | Technology   |                                   |
| <b>Revision date</b>                                       | <b>Subject group</b>   |                                   |
|  | Computer Technology  |                                   |
| <b>Offered first time</b>                                  | <b>Offered for the last time</b>   |                                   |
| 2024   |  |                                   |
| <b>Department</b>  | <b>Replaced by</b>   |                                   |
| Institutionen för kultur och samhälle                      |  |                                   |

## Course offered for

- Master of Science in Information Technology
- Master of Science in Computer Science and Software Engineering
- Master of Science in Computer Science and Engineering

## Prerequisites

BSc level within Computer Science, Computer Science and Engineering or Information Technology and Engineering. Completed course corresponding to 6 credits in AI, alternatively studied in parallel with course corresponding to 6 credits in AI.

## Intended learning outcomes

After completing the course, the student will be able to:

- describe concepts, theories and problems in the field of applied ethics and the ethics of artificial intelligence (AI)
- develop a theoretically based reasoning in problem areas related to AI
- formulate theory-based recommendations and assessments of a moral question related to AI in a professional environment

## Course content

The course deals with ethical issues raised by the development of increasingly sophisticated autonomous systems, including which demands can be placed on this technology and why, the different kinds of agents that artificial systems become, whether these systems can be characterized as moral agents and whether they can be held responsible for their actions, and how the overall responsibility for artificial intelligence (AI) should be handled and why. The course places focus on four main topics of moral relevance for autonomous systems and AI: responsibility for decisions made by artificial agents, bias/discrimination as result of using AI, the importance of participation in the development of AI-systems, and how we can ensure that AI implements human values and not other interests. The course takes up theoretical tools for reflecting on ethical implications of developments within AI, which demands can be placed on this type of technology, and how it can be handled by society.

## Examination

|      |                                  |           |            |
|------|----------------------------------|-----------|------------|
| SEM1 | Active participation on seminars | 3 credits | U, G       |
| UPG1 | Individual written assignment    | 3 credits | U, 3, 4, 5 |

## Grades

Four-grade scale, LiU, U, 3, 4, 5

## Other information

### About teaching and examination language

The teaching language is presented in the Overview tab for each course. The examination language relates to the teaching language as follows:

- If teaching language is “Swedish”, the course as a whole could be given in Swedish, or partly in English. Examination language is Swedish, but parts of the examination can be in English.
- If teaching language is “English”, the course as a whole is taught in English. Examination language is English.
- If teaching language is “Swedish/English”, the course as a whole will be taught in English if students without prior knowledge of the Swedish language participate. Examination language is Swedish or English depending on teaching language.

### Other

The course is conducted in such a way that there are equal opportunities with regard to sex, transgender identity or expression, ethnicity, religion or other belief, disability, sexual orientation and age.

The planning and implementation of a course should correspond to the course syllabus. The course evaluation should therefore be conducted with the course syllabus as a starting point.

The course is campus-based at the location specified for the course, unless otherwise stated under “Teaching and working methods”. Please note, in a campus-based course occasional remote sessions could be included.