

SASH92, Social AI Through the Looking Glass, 7.5 credits

Social AI Through the Looking Glass, 7,5 högskolepoäng
First Cycle / Grundnivå

Details of approval

The syllabus was approved by The pro-dean for First-Cycle Studies at the Faculties of Humanities and Theology on 2022-01-31 and was last revised on 2025-03-12 by The Pro Dean of First and Second Cycle Studies at The Joint Faculties of Humanities and Theology (U 2025/174). The revised syllabus comes into effect 2025-03-12 and is valid from the autumn semester 2025.

General information

The course is offered as a free-standing course. It can normally be included as part of a first- or second-cycle degree.

Language of instruction: English

Main field of study *Specialisation*

- G1N, First cycle, has only upper-secondary level entry requirements

Learning outcomes

On completion of the course, students should:

Knowledge and understanding

- be able to identify and account for some key psychological and philosophical theories on human social cognition, such as: theories of Theory of Mind, Embodied accounts (4E Model), Direct Neuronal Matching Hypotheses; Philosophy of Action; Enactivism;
- be able to identify and explain main theoretical and methodological differences between contrasting approaches in human social cognition, e.g.: representational and inferential vs. embodied and situated approaches;

- be able to explain some key concepts in social robotics with reference to social interactions between robots and humans, such as: i) embodied and situated accounts of human-robots interactions; ii) affective and cognitive sciences for socially interactive robots; iii) learning, adaptation and evolution of social cognition in social robots; iv) context awareness, expectation and intention understanding in social robots; v) interaction and collaboration between robots, humans and environment;
- be able to describe and account for the main different research paradigms and models implemented and applied by research on social robotics and human-robots interaction (HRI), such as: virtual peer agents, embodied autonomous systems, human-robot vocal interfaces, Computers are Social Actors (CASA), and artificial cognition architectures such as deep neural networks;

Competence and skills

- be able to summarise and contrast arguments for and against standard accounts of human social cognition;
- be able to identify best methodologies and analytical frameworks to be applied in different human-robot interactional contexts;
- be able to critically discuss theoretical and methodological approaches to the study of human social cognition.

Judgement and approach

- be able to provide contrasting examples on interactional situations wherein the presence of social robots vs. humans as partners may be considered as necessary, supportive, or hindering;
- be able to envision future interactional scenarios in which robots as social agents can be implemented and tested.

Course content

The course is an introduction to Social Robotics and Human-Robot Interaction (HRI). It aims at drawing engaged reflections and theoretical comparisons between how humans engage in meaningful interactions with other humans and with social robots. Towards this aim, the course will first provide an overview of the standard and contrasting accounts of social cognition and its development, spanning from Theory of Mind, embodied and situated approaches, neural mirroring theories. Mainstream research paradigms to investigate human-robot interactions will be presented, along with an overview of the main cognitive architectures and computing techniques applied in social robotics, such as artificial neural networks and deep networks. Finally, the course will address some psychological and philosophical critical issues related with ethical, social and functional aspects in the HRI field.

Course design

Teaching consists of focused lectures, one mandatory seminar and in-class group presentations. The introductory session is also mandatory.

The University is responsible for ensuring that an alternative date or comparable assignment is offered to students who are not able to complete a compulsory component owing to circumstances beyond their control, e.g. accident, sudden illness or similar situation. This also applies to students who miss teaching sessions owing to activities in an elected position as student representative.

Assessment

Assessment is based on an invigilated written exam.

The examiner, in consultation with Disability Support Services, may deviate from the regular form of examination in order to provide a permanently disabled student with a form of examination equivalent to that of a student without a disability.

Grades

Grading scale includes the grades: U=Fail, E=Sufficient, D=Satisfactory, C=Good, B=Very Good, A=Excellent

The highest grade is A and the lowest passing grade is E. The grade for a non-passing result is Fail.

Entry requirements

General requirements for university studies in Sweden

Further information

- The course is given by the Department of Philosophy, University of Lund
- The credits allocated for course content that in whole or in part is commensurate with another course can only be credited once for a degree.
- For further details see the current registration information and other relevant documentation.