LUNDS UNIVERSITET
Lunds Tekniska Högskola

Course syllabus

Interaktion 2: Virtualitet och kognitiv modellering
Interaction 2: Virtuality and Cognitive Modelling

MAMN15, 7,5 credits, A (Second Cycle)

Valid for: 2023/24
Faculty: Faculty of Engineering, LTH
Decided by: PLED C/D
Date of Decision: 2023-04-18

General Information

Language of instruction: The course will be given in Swedish

Aim

Based on the knowledge and skills acquired during previous computer science courses and human-technology-oriented courses, the students will assemble and test this knowledge and skills in a larger project while at the same time reflecting on their work. The students should also deepen their knowledge on software, design and cognition in relation to advanced interactive digital environments. A sub-purpose is to provide training on how to collaborate efficiently in a project team consisting of people with different backgrounds and skills. Another sub-purpose is to provide students with an in-depth ability to identify and solve interaction problems related to next-generation interaction technologies connecetd to applications within e.g. learning, sustainability and robotics.

Learning outcomes

Knowledge and understanding
For a passing grade the student must

• demonstrate knowledge on the potential of using digital artifacts and environments for learning, education, entertainment, industrial application, health care, information, etc.
• be able to discuss and compare different solutions and argue for the choice made, in a professional manner
• be able to justify how user testing will be applied - scope, methods, etc. - in their course

project

• be able to reason about issues of methodology and relevance in a professional manner
• demonstrate the knowledge and understanding required to act as a key figure in a development project within this area

Competences and skills
For a passing grade the student must

• be able to carry out a project under the criteria and milestones decided by the course teachers along with the project team
• be able to contribute significantly to a project, in a project team with mixed skills, aimed at developing/redeveloping an interactive system/prototype/artifact

• be able to argue for the priorities made during the development of such a system

• be able to hold dialogues with different groups and to work effectively in mixed teams with different skills
• be able to define concepts in such a way that different perspectives, disciplines and areas of expertise can be brought together and thus serve as project manager for a team of people with different knowledge background

Judgement and approach
For a passing grade the student must

• demonstrate preparedness to deal with the unpredictability of problems involving humans and their interactions with an increasingly complex environment
• demonstrate awareness of ethical aspects of research and development
• understand the value in tackling problems in more than one way due to the advantages and disadvantages of different methods, and to understand how and why it is advantageous to combine certain methods with each other

• recognize the importance of inserting a project in different contexts and relate to the requirements and perspectives of others.

Contents

This is a highly project-oriented course in which students develop or refine their own concrete prototypes of artifacts for interaction. The students will specify problems, develop solutions and then test them and will also take part of the work of other student groups. By default, the project of this course is a continuation of the project in the course “Interaction 1”. There is however an opportunity to change the focus of the project and even to begin with a new project idea when there are reasons for this. This is determined in consultation with the course coordinator.

Examination details

Grading scale: TH - (U,3,4,5) - (Fail, Three, Four, Five)
Assessment: All compulsory parts.

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.

Admission

Admission requirements:

- MAMN10 Interaction 1: Neuro Modelling, Cognitive Robotics and Agents

Assumed prior knowledge: TEK210 Cognition and at least one of MAMA15, MAMN25, MAM061, MAM101 or MAM120.
The number of participants is limited to: No
The course overlaps following course/s: KOGP10

Reading list

- Compendium by the Department of Design Sciences and Lund University Cognitive Science.

Contact and other information

Course coordinator: Agneta Gulz, Agneta.Gulz@lucs.lu.se
Course homepage: http://www.eat.lth.se/kurser/interaktionsdesign
Further information: Compulsory parts: introduction lecture, written and oral presentations, workshops, project supervision, written project report, oral project presentation. Please note that the course is followed also by students from the Master program in cognitive science.