UNIVERSITY OF SKÖVDE

COURSE SYLLABUS

Människa-robotinteraktion, Forskarnivå
Human-Robot Interaction, Post-graduate level
5 credits

Course Code: IT0948F
The Course Syllabus applies from: Jul 1, 2022
Date of Approval: Apr 25, 2022
Version Number: 1

Third-cycle Subject Area: Informatics

Academic Level: Post-graduate level

1 Name, Scope and Level of the Course

The course is given by the University of Skövde and is named Human-Robot Interaction, Post-graduate level. It comprises 5 credits and is on Post-graduate level.

2 Objectives

After completed course the student should be able to:

- extensively describe, analyze and problematize the origin and the state of art of the interdisciplinary field of human-robot interaction (HRI) including human-robot collaboration;
- extensively exemplify and contrast different perspectives on central foundations, principles, methods and theories within HRI;
- extensively describe, exemplify, and discuss the human perspective, the robot perspective and the interaction perspective of HRI; and
- analyze and argue ethical and societal issues that may arise in relation to HRI research.

3 Course Content

The course aims to deepen the students' knowledge within the interdisciplinary field of HRI. Initially, the course introduces the emergence and roots of HRI, its interdisciplinary nature and its various applications.

The course also focuses on the scope and character of current HRI research, addressing the state of the art in HRI, as well as a foreseeable directions toward which the field is developing. It pays in-depth attention to the robot perspective, the human perspective and the interaction perspective of HRI.

The course also addresses the challenges of being an interdisciplinary research field as well as ethical and societal issues that may arise in research and development of HRI.

4 Forms of Teaching

The teaching comprises lectures, supervision, project work and seminars/group discussions.

The teaching is conducted in English.

5 Examination

The course is graded Fail (U) or Pass (G).

Registration of examination results:

Name of examination	Credits	Grading
Seminar Assignment	2.5 hp/credits	U/G
Assignment	2.5 hp/credits	U/G

To obtain a final passing grade of the course, each part of the examination must have been approved.

6 Admission Requirements

The admission requirements of the course are general entry requirements for third-cycle courses and study programmes, i.e. a second-cycle qualification or satisfied requirements for courses comprising at least 240 credits of which at least 60 credits were awarded in the second cycle, or the equivalent.

At least 60 credits within the main field of Informatics,

Engineering Science, Computer Science or Cognitive Science (or the equivalent) including an independent project/degree project of at least 15 credits at second-cycle level (or the equivalent).

A further requirement is proof of skills in English equivalent of studies at upper secondary level in Sweden, known as the Swedish course English 6. This is normally demonstrated by means of an internationally recognized test, e.g. IELTS or TOEFL.

7 Third-cycle Subject Area

The course forms a part of the third-cycle subject area of Informatics at the University of Skövde.

8 Approval of Course and Course Syllabus

This course was established by the Education Commitee for Third-cycle Studies in Informatics Apr 25, 2022. This course syllabus was ratified by the Education Commitee for Third-cycle Studies in Informatics Apr 25, 2022. It is valid from Jul 1, 2022.

9 Overlapping with Another Course

This course cannot constitute a part of a degree also containing a course, the content of which is totally or partly equivalent to the content of this course.

10 Additional Information

Further information will be available on the university's website before the course is provided.

National and local regulations for higher education are available on the university's website.

During and after the course there will be a follow-up evaluation concerning the learning outcomes. The main objective of the follow-up is to contribute to improving the course. The doctoral students' experience and points of view constitute one part of the scrutiny and are obtained through written group course evaluation/discussions. The doctoral students are to be informed about the outcome of these as well as possible decisions concerning steps to be taken.

11 Course Literature and Other Educational Materials

Bartneck, C., et. al. (2020). *Human-robot interaction: An introduction.* Cambridge, UK: Cambridge University Press. ISBN 9781108735407.

Scientific articles designated on the course website.