



Faculty of Arts and Social Sciences
Information Systems

Syllabus

Co-design and User-centred Systems Development

Course Code:

ISAD25

Course Title:

Co-design and User-centred Systems Development
Co-design och användarcentrerad systemutveckling

Credits:

15

Degree Level:

Master's level

Progressive Specialisation:

Second cycle, has only first-cycle course/s as entry requirements (A1N)

Major Field of Study:

IKA (Information Systems)

Course Approval

The syllabus was approved by the Faculty of Arts and Social Sciences 2025-09-11, and is valid from the Spring semester 2026 at Karlstad University.

Prerequisites

A degree of Bachelor, 180 ECTS credits, in one of the main fields of study Information Systems, Computer Science, Business Administration, or Media and Communication Studies, or a degree project of at least 15 ECTS credits at the G2E level in one of these fields, and upper secondary level English 6 or English level 2, or equivalent

Learning Outcomes

Upon completion of the course, students should be able to:

1. give an account of the concepts prototyping, participatory systems development, co-design, user-oriented and user-centred systems development,
2. give an account of the concepts interaction design, user experience (UX), usability, user-friendly, and Computer-Supported Cooperative Work (CSCW),
3. identify factors that are significant for interaction in digital services and apply customer (user) journey mapping,

4. give an account of and apply different experimental methods for development and evaluation of interaction design,
5. relate experiments to theories of user-centred systems development,
6. decide what methods and experiments can be used in different systems development situations, and
7. justify, compare, and evaluate design proposals based on experimental results.

Content

The course covers the following:

- Models for systems development, especially different forms of user-centred systems development and digital services development
- Similarities and differences between different concepts, especially prototyping, participatory systems development, co-design, user-oriented and user-centred systems development, interaction design, user experience (UX), usability and user-friendly, and Computer-Supported Cooperative Work (CSCW) as infrastructuring
- Prototyping and its role in systems development and co-design
- The role of usability testing in systems development and co-design
- Experiments for design development and for evaluation

The course includes practical exercises in a laboratory environment for both types of experiment, design development and evaluation, and students are expected to justify, plan, prepare, and conduct experiments. There is a special emphasis on learning how to relate experiments to theories of user-centred systems development and submitting design proposals (requirement specifications) based on the results of experiments.

Instruction is in the form of lectures, seminars, and laboratory work.

Reading List

See separate document.

Examination

Learning outcomes 1-3 are assessed based on an individual oral exam and an individual written hand-in assignment presented and discussed in a seminar.

Learning outcomes 4-7 are assessed based on individual written lab reports presented orally in seminars.

If students have a decision from Karlstad University entitling them to Targeted Study Support due to a documented disability, the examiner has the right to give such students an adapted examination or to examine them in a different manner.

Grades

One of the grades Distinction (VG), Pass (G), or Fail (U) is awarded in the examination of the course.

Quality Assurance

Follow-up relating to learning conditions and goal-fulfilment takes place both during and upon completion of the course in order to ensure continuous improvement. Course evaluation is partly based on student views and experiences obtained in accordance with current regulations and partly on other data and documentation. Students will be informed of the result of the evaluation and of any measures to be taken.

Course Certificate

A course certificate will be provided upon request.

Additional information

The local regulations for studies at the Bachelor and Master levels at Karlstad University stipulate the obligations and rights of students and staff.