

Co-creating Digital Solutions and Automation

Samskapande av digitala lösningar

7.5 credits

Programme course

726G33

Valid from: 2024 Autumn semester

Determined by	Main field of study	
Course and Programme Syllabus Board at the Faculty of Arts and Sciences	Information Systems	
Date determined	Course level	Progressive specialisation
2024-04-09	First cycle	G2F
Revised by	Disciplinary domain	
	Social sciences	
Revision date	Subject group	
	Informatics/Computer and Systems Sciences	
Offered first time	Offered for the last time	
Autumn semester 2024		
Department	Replaced by	
Institutionen för ekonomisk och industriell utveckling		

Course offered for

- Master Programme in IT and Management
- Bachelor's programme in Information Systems Analysis

Entry requirements

Grundläggande behörighet på grundnivå
samt

Samhällskunskap 1b eller 1a1 och 1a2
samt

Matematik 2a/2b/2c eller Matematik B
and

at least 95 ECTS credits from year 1 and 2 on the Bachelor's programme in
Information Systems Analysis

Intended learning outcomes

On completion of the course, the student should be able to:

- Apply the main concepts of Science and Technology Studies (STS)
- Apply co-creation to case studies and to the design of digital solutions and automation
- Identify and discuss the different perspectives on co-creation and responsible innovation
- Critically analyze the societal impact of digital solutions and automation
- Assess the value of inclusion of external users in the design and testing of digital solutions and automation

Course content

The course aims to introduce the student to the theories and concepts from social sciences, especially the area of Science and Technology Studies (STS), which is concerned with the relationship between scientific knowledge, technological systems, and society. Consequently, the student will be able to engage in co-creation and responsible innovation in design and testing of digital solutions and automation. Furthermore, the student will be able to critically analyze the consequences of these technologies for society by applying the STS concepts to real applications and case studies, eventually also considering ongoing projects at Linköping University or by private or public organizations in Sweden.

In summary, the student will learn to identify the political and social effects of digital solutions and automation and question, for example, who is responsible for those technologies or solutions? What changes do they eventually enforce or enact for the final users and their livelihood? To answer those questions and identify the co-creation perspectives for designing situated and socially robust digital solutions and automation, the students will both work with a group as well as independently to critically analyze them.

Teaching and working methods

The teaching consists of lectures, seminars, and project work in the form of workshops with the lecturer's supervision. In addition to this, the student must practice self-study.

In particular, the group work will cover the practice part of the course asking the student to simulate a startup activity from ideation to a proposal of a new digital platform, products, or services and critically analyze them using the STS before their final release.

The essay will ask the student to choose one of the topics of the course and develop a reflection on the output of the group project, also considering the current literature on and identifying similar cases.

Peer review and informal suggestions from the instructors will happen in the session dedicated to the group project presentation.

Examination

The course is examined through:

- Individual written essay, grading scale: U, G, VG
- Written project group, grading scale: U, G

For a final grade of Pass, at least Pass is required in all sections. For Well passed, a Well passed is required in the individual written exam and written project group report.

Detailed information can be found in the study guide.

If special circumstances prevail, and if it is possible with consideration of the nature of the compulsory component, the examiner may decide to replace the compulsory component with another equivalent component.

If the LiU coordinator for students with disabilities has granted a student the right to an adapted examination for a written examination in an examination hall, the student has the right to it.

If the coordinator has recommended for the student an adapted examination or alternative form of examination, the examiner may grant this if the examiner assesses that it is possible, based on consideration of the course objectives.

An examiner may also decide that an adapted examination or alternative form of examination if the examiner assessed that special circumstances prevail, and the examiner assesses that it is possible while maintaining the objectives of the course.

Students failing an exam covering either the entire course or part of the course twice are entitled to have a new examiner appointed for the reexamination.

Students who have passed an examination may not retake it in order to improve their grades.

Grades

Three-grade scale, U, G, VG

Other information

Planning and implementation of a course must take its starting point in the wording of the syllabus. The course evaluation included in each course must therefore take up the question how well the course agrees with the syllabus.

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.

If special circumstances prevail, the vice-chancellor may in a special decision specify the preconditions for temporary deviations from this course syllabus, and delegate the right to take such decisions.