TIA130   Applied Research Methods and Design for Information Technologies and Learning, 15 credits
Tillämpade forskningsmetoder och design för informationsteknik och lärande, 15 högskolepoäng
Second Cycle

Confirmation

This course syllabus was confirmed by Department of Applied Information Technology on 2014-11-28 and was last revised on 2023-11-10 to be valid from 2023-11-10, autumn semester of 2023.

Field of education: Science 100%
Department: Department of Applied Information Technology

Other participating department
Department of Education, Communication and Learning

Position in the educational system

The course is a mandatory course within the program specified below. The course can also be given as a freestanding course.

The course can be part of the following programme: 1) International Master's Programme in Information Technology and Learning (S2ITL)

Main field of studies	*Specialization*
Applied Information Technology with Specialization in Learning and Communication	A1N, Second cycle, has only first-cycle course/s as entry requirements

Entry requirements

To be eligible for the course the student must possess a Bachelor's degree with a minimum of 180 higher education credits or an equivalent degree. Furthermore, the

student must demonstrate proficiency in English equivalent to English 6 from Swedish Upper Secondary School, or the equivalent level of an internationally recognized test, for example TOEFL, IELTS, alternatively a Bachelor's degree from an education offered in English.

Learning outcomes
On successful completion of the course the student will be able to:

Knowledge and understanding
- describe how qualitative, quantitative, and design-based research methods could be used for conducting research on IT and Learning;
- explain key concepts in research method traditions within the social sciences;

Competence and skills
- discuss the possibilities and limitations of different research methods in relation to knowledge requirements, research questions and empirical material;
- formulate a research design for a potential study within the research area of educational technology;

Judgement and approach
- motivate methodological choices based on research ethical considerations and principles;
- provide peer review and defend a research design plan based on scientific considerations.

Course content
The course aims to introduce the connection between theory, methodology and method. The goal is thereby to create an understanding of the different parts of the research process and how a project is formulated and executed. Furthermore, the course aims to introduce qualitative and quantitative methods for data collection and analysis. Mixed methods and how they can be applied in online ethnography approaches, also in relation to ethical principles of internet and social media based research, are also dealt with in the course. The course deals with various quality criteria, including validity and reliability; research ethical guidelines and problems; principles for choosing a research method; and the relevance of research-based methods for design and development.

Form of teaching
The teaching consists of lectures, exercises in class, group discussions, and literature seminars.

Language of instruction: English

Assessment

The examination is based on three forms of assessments;

1. two completed assignments (grades Fail-Pass, 4 credits)
2. active contribution in two literature seminars (grades Fail-Pass, 4 credits) and
3. one individual writing assignment, including peer review (grades Fail-Pass With Distinction, 7 credits).

A student who has taken two exams in a course or part of a course without obtaining a pass grade is entitled to the nomination of another examiner. The student needs to contact the department for a new examiner, preferably in writing, and this should be approved by the department unless there are special reasons to the contrary (Chapter 6 Section 22 of the Higher Education Ordinance).

If a student has received a recommendation from the University of Gothenburg for special educational support, where it is compatible with the learning outcomes of the course and provided that no unreasonable resources are required, the examiner may decide to allow the student to sit an adjusted exam or alternative form of assessment.

In the event that a course has ceased or undergone major changes, students are to be guaranteed at least three examination sessions (including the ordinary examination session) over a period of at least one year, but no more than two years, after the course has ceased/been changed. The same applies to placements and professional placements (VFU), although this is restricted to just one additional examination session.

Grades

The grading scale comprises: Pass with Distinction (VG), Pass (G) and Fail (U).
To obtain the grade Pass on the course, the grade Pass is required for all examination parts. For the grade Pass With Distinction on the entire course, the grade Pass With Distinction on the individual writing assignment and the grade Pass on other examinations are required.

Course evaluation

An evaluation will be conducted after completion of the course. Students will give the evaluation anonymously. The results from the course evaluation will be compiled and made available to the students. If changes are implied by the evaluation, these should be presented. Compilation of the course evaluation is to be available for students attending the next time the course is offered.