

Digital technologies in health systems from a global perspective, 3 credits

Digital teknik inom hälsosystem ur ett globalt perspektiv, 3 högskolepoäng

Course code:	FHVV037
Third-cycle subject:	Interdisciplinary
School:	School of Health, Care and Social Welfare
Responsible department:	Public Health Sciences
Valid from:	250811
Established by:	School of Health, Care and Social Welfare
Decision date:	250121
Last modified:	
Level of education:	Third cycle level

Course objective

The course aims to equip doctoral students with a deep understanding of how digital health technologies (DHTs) interact with various users and contextual factors within the healthcare ecosystem, and how these interactions uniquely shape health outcomes.

Course content

- Definition of concepts and key principles of DHTs.
- Challenges and opportunities for DHTs in health systems
- Research methods for generating Real-World Evidence (RWE) to demonstrate value and effectiveness of DHTs.
- International regulatory and legal frameworks related to DHTs.
- Ethical considerations for big health data as guided by the WHO recommendations.
- The North-South digital equity gap with a focus on the global sustainable development goals (SDGs).

Intended learning outcomes

On completion of the course the student is expected to be able to:

1. Define and problematize concepts and key principles of DHTs.
2. Apply appropriate research methods for generating real-world evidence (RWE) to assess value and effectiveness of DHTs.
3. Critically assess opportunities, as well as the practical, ethical, equity and legal challenges when implementing DHTs in health systems from a global perspective.

The intended qualitative targets in relation to the Higher Education Ordinance, appendix 2.

Knowledge and understanding

For the Degree of Doctor, the doctoral student shall demonstrate:

- A2: familiarity with research methodology in general and the methods of the specific field of research in particular.

Competence and skills

For the Degree of Doctor, the doctoral student shall demonstrate:

- B4: the ability in both national and international contexts to present and discuss research and research findings authoritatively in speech and writing and in dialogue with the academic community and society in general,
- B5: the ability to identify the need for further knowledge

Judgement and approach

For a Degree of Doctor the doctoral student shall demonstrate

- C1: intellectual autonomy and disciplinary rectitude as well as the ability to make assessments of research ethics

Teaching formats

The teaching formats are recorded lectures, group discussions, live online Q and A sessions, case studies and a written assignment.

The course will take place online.

Examination

INL: Written Assignment, 2,0 credits

SEM1: Seminar based on group discussions, 1 credit

Grade

Examinations included in the course are assessed according to a two-grade scale, fail or pass.

Grades are to be decided by a teacher specially appointed by the university.

Requirements

To participate in the course and the examinations included in the course, the applicant must be admitted to doctoral studies at a Swedish university or a foreign university (first priority will be given to students from MDU:s collaborating international universities).

Specific entry requirements

Enrolled in a PhD program, have completed a Master´s degree or have defended doctoral thesis within the last 3 years in one of the following subject areas: Engineering, Medical technology, e-health, Health and welfare technology, Health sciences, Medical sciences, Data and informatics, Public Health Sciences, Caring Science with Specialization in Nursing, Nursing science, Physiotherapy, Social Work, Sociology, Psychology, or equivalent.

Selection criteria

Selection of applicants will be made in accordance with the ranking below.

1. Enrolled doctoral students in Health and welfare, Medical technology, Health sciences, Medical sciences, Data and informatics, Public Health Sciences, Caring Science with Specialization in Nursing, Nursing science, Physiotherapy, Social Work, Sociology, Psychology, or equivalent.
2. Enrolled doctoral students at Mälardalen University
3. Enrolled doctoral students at other universities in Sweden
4. Doctoral students at foreign universities (first priority will be given to students from MDU:s collaborating international universities).