



KURSPLAN

Fundamentals in Assistive Technology, 7,5 högskolepoäng

Fundamentals in Assistive Technology, 7.5 credits

Kurskod:	HFAR20	Utbildningsnivå:	Avancerad nivå
Fastställd av:	Utbildningsrådet 2020-05-14	Utbildningsområde:	Medicinska området
Reviderad av:	Utbildningsrådet 2024-04-09	Ämnesgrupp:	MT2
Gäller fr.o.m.:	2024-08-26	Fördjupning:	A1N
Version:	2	Huvudområde:	Ortopedteknik

Lärandemål

Upon completion of the course the student should have the ability to:

Kunskap och förståelse

- describe current laws, policies, guidelines and regulations governing production and provision of assistive technologies
- discuss the role of assistive technologies as mediators and moderators for achieving the sustainable development goals
- critically evaluate research-based evidence related to the effectiveness of assistive technologies
- demonstrate an understanding of the engineering, medical, and social aspects associated with assistive technology
- argue for the importance of maintaining a patient perspective in the design and prescription of assistive technologies
- demonstrate an understanding of how design characteristics of devices may need to change in different contexts.

Färdighet och förmåga

- work in a team to analyse usability goals for an assistive device
- apply appropriate tools to evaluate and document outcomes associated with use of an assistive device.

Värderingsförmåga och förhållningssätt

- demonstrate an appreciation of the importance of communication between disciplines.

Innehåll

- definitions of assistive devices
- the global need for assistive technologies
- assistive technologies and the Sustainable Development Goals
- assessing individual needs for assistive technology
- assistive technology design and development from an engineering perspective
- assistive technology design and development from a medical and social perspective
- laws and policies guiding production and provision of assistive technologies

- medical device regulation
- overview of research and development related to assistive technologies
- usability, user experience and user-centred design
- evaluating outcomes of assistive technology provision

Undervisningsformer

The course is implemented through lectures, case studies, written assignments, and group work.

Undervisningen bedrivs på engelska.

Förkunskapskrav

The applicant must hold the minimum of a Bachelor's degree or equivalent (i.e. the equivalent of 180 ECTS credits at an accredited university) in Prosthetics and Orthotics or Mechanical engineering. Proof of English proficiency is required.

Examination och betyg

Kursen bedöms med betygen A, B, C, D, E, FX eller F.

Examination of the course will be based upon one individual written assignment and one seminar.

A senior lecturer serves as examiner for the course.

Poängregistrering av examinationen för kursen sker enligt följande system:

Examinationsmoment	Omfattning	Betyg
Individual written assignment	5 hp	A/B/C/D/E/FX/F
Seminar	2,5 hp	U/G

Kurslitteratur

Relevant journal articles will be used.