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
Gäller fr.o.m.:	2020-08-17	**Ämnesgrupp:**	MT2
Version:	1	**Fördjupning:**	A1N
Diarienummer:	Department of Rehabilitation	**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 both nationally and internationally
- 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 the design, development, and use of assistive technology
- argue for the importance of maintaining a patient perspective in the design and prescription of assistive technologies
- compare how design characteristics of devices may need to change in different national and international contexts.

Färdighet och förmåga

- work as 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

- develop the capability to communicate between disciplines

Innehåll

- what is an assistive device, what is not an assistive device
- 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
- national and international laws and policies guiding production and provision of assistive

technologies
- medical device regulation (e.g. CE marking and FDA approval)
- health, safety and environmental protection standards
- 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, 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