KURSPLAN
Assistive Technology Design, 9 högskolepoäng

Assistive Technology Design, 9 credits

Kurskod:	HATR21	**Utbildningsnivå:**	Avancerad nivå
Fastställd av:	Utbildningsrådet 2020-11-17	**Utbildningsområde:**	Tekniska området
Reviderad av:	Utbildningsrådet 2024-05-14	**Ämnesgrupp:**	TE9
Gäller fr.o.m.:	Våren 2025	**Fördjupning:**	A1N
Version:	2	**Huvudområde:**	Produktutveckling

Lärandemål

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

Kunskap och förståelse
- describe general tools and methods in product development
- describe specialised knowledge of assistive technology in the context of product development
- describe methods for risk analysis, evaluation and project management.

Färdighet och förmåga
- apply methods for identification of user´s needs and transfer these needs to technical criteria
- apply theoretical concepts and models to develop products which meet the needs of users
- apply product development and project management methods in practical work
- discuss the implications of a performed risk assessment
- show collaborative engagement in a product development team.

Värderingsförmåga och förhållningssätt
- apply appropriate tools for product development in the context of assistive technology
- judge and suggest actions to improve products within the context of assistive technology
- demonstrate insight in the interests and expectations of different stakeholders on a product with focus on users, producers and society
- demonstrate an appreciation for the need to maintain a user perspective in the design and prescription of assistive technologies.

Innehåll

The course includes the following elements:
- ideation
- the user perspective
- concept development
- manufacturing processes
- analyzing existing products
- concept selection

- practical project work and planning

Undervisningsformer

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

Undervisningen bedrivs på engelska.

Förkunskapskrav

The applicant must hold a minimum of a Bachelor 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 on project work including presentation and documentation (assignments). Examination elements include workshops and laboratory sessions which will only be provided once per group of students during the course, due to the complexity and one-off nature, and required sequence of this content.

A senior lecturer serves as examiner for the course.

Poängregistrering av examinationen för kursen sker enligt följande system:

Examinationsmoment	Omfattning	Betyg
Assignments	9 hp	A/B/C/D/E/FX/F

Kurslitteratur

Ulrich, K. T., Eppinger, S. D., & Yang, M. C. (2020). *Product design and development* (Seventh edition (international student edition)). McGraw-Hill Education.

The most recent editions of the course literature should be used.