COURSE SYLLABUS
Assistive Technology Design, 9 credits

Assistive Technology Design, 9 högskolepoäng

Course Code:	HATR21	**Education Cycle:**	Second-cycle level
Confirmed by:	Utbildningsrådet Nov 17, 2020	**Disciplinary domain:**	Technology
Revised by:	Utbildningsrådet May 14, 2024	**Subject group:**	TE9
Valid From:	Spring 2025	**Specialised in:**	A1N
Version:	2	**Main field of study:**	Product Development

Intended Learning Outcomes (ILO)

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

Knowledge and understanding

- 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.

Skills and abilities

- 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.

Judgement and approach

- 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.

Contents

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

- concept selection
- practical project work and planning

Type of instruction

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

The teaching is conducted in English.

Prerequisites

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 and grades

The course is graded A, B, C, D, E, FX or 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.

Registration of examination:

Name of the Test	Value	Grading
Assignments	9 credits	A/B/C/D/E/FX/F

Course literature

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.