



COURSE SYLLABUS

Research Methods and Evidence-based Practice, 7.5 credits

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Course Code: HRMS21	Education Cycle: Second-cycle level
Confirmed by: Utbildningsrådet Apr 13, 2021	Disciplinary domain: Medicine
Valid From: Nov 1, 2021	Subject group: MT2
Version: 1	Specialised in: A1F
Reg number: Department of Rehabilitation	Main field of study: Prosthetics and Orthotics

Intended Learning Outcomes (ILO)

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

Knowledge and understanding

- explain processes and challenges related to implementation of evidence-based practice
- describe implementation of research and development outcomes from an evidence-based perspective.

Skills and abilities

- compare and contrast differences in research designs and methodologies used in research related to assistive technologies
- discuss and debate important issues in research ethics, including responsibility for research, data management, ethical vetting, and scientific misconduct
- execute data collection and analyses using both qualitative and quantitative data
- critically evaluate the quality of published scientific literature
- critically evaluate research in relation to the concepts of validity/reliability and trustworthiness.

Judgement and approach

- critically assess the need for ethics in research and development
- reflect over evidence-based practice from ethical, societal and social perspectives.

Contents

- foundations of scientific theory and their role in the choice of scientific methods
- research ethics
- research design
- scientific rigour and quality
- evidence in practice
- implementation of evidence-based practice

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 credits at an accredited university) in prosthetics and orthotics or mechanical engineering. Proof of English proficiency is required. Also the applicant must successfully have completed the course Co-production in Health and Welfare, 7.5 credits.

Examination and grades

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

Examination of the course will be based upon one individual written assignment, one group presentation and multiple seminars.

A senior lecturer serves as examiner for the course.

In individual written assignment FX will not be applied.

Registration of examination:

Name of the Test	Value	Grading
Individual written assignment	6.5 credits	A/B/C/D/E/FX/F
Group presentation	0.5 credits	U/G
Seminars	0.5 credits	U/G

Course literature

Creswell, J.W. (2013). *Research design*. SAGE Publications Inc.

Day, R. A. (1998). *How to Write & Publish a Scientific Paper*. Cambridge University Press.