

**SYLLABUS**

# **Design and Application of Scientific Methodology 7.5 credits S7022H**

**Design och tillämpning av vetenskaplig metodik**

**Course syllabus admitted: Autumn 2015 Sp 1 - Autumn 2015 Sp 2**

**DECISION DATE  
2015-02-12**

# Design and Application of Scientific Methodology 7.5 credits S7022H

## Design och tillämpning av vetenskaplig metodik

### Second cycle, S7022H

Education level	Grade scale	Subject	Subject group (SCB)
Second cycle	U G VG	Sjukgymnastik	Therapy, Rehabilitation and Dietary Treatment

## Entry requirements

Professional qualification in physiotherapy consisting of 180 credits or the equivalent.

## Selection

The selection is based on 30-285 credits

## Examiner

Lars Nyberg

## Course Aim

The student should, on completion of the course, show advanced methodological knowledge in scientific work in the subject physiotherapy and be able to:

1. Formulate and design subject-specific scientific issues for physiotherapy and method choices with a quantitative approach.
2. Critically review and evaluate physiotherapeutic quantitative empirical studies.
3. Apply, carry out, critically evaluate and argue for quantitative research approaches and statistical methods in research in the subject physiotherapy.
4. Critically review and evaluate qualitative empirical studies in physiotherapy
5. Formulate subject-specific scientific issues for physiotherapy with a qualitative approach
6. Analyse qualitative data by comparing, seeing relationships and critically processing data
7. In writing argue, relate and discuss qualitative research approaches in relation to the subject physiotherapy.
8. Discuss the possibilities and limitations of science, its role in society and people's responsibility for how it is used

## Contents

Quantitative and qualitative research design and basic quantitative and qualitative data collection and analysis methodology in the subject physiotherapy including basic statistical inference analysis Review and evaluation of how quantitative and qualitative methods are applied within research in the subject physiotherapy in the form of analysis of scientific articles. Research ethics and research ethics legislation.

## Realization

Each course occasion's language and form is stated and appear on the course page on Luleå University of Technology's website.

The course has its educational basis in a knowledge-building working method. This working method is characterised by the student actively searching for and solving problems through an examining and critically reflective working method. Learning takes place in scheduled lectures, seminars and laboratory sessions and the solving of study assignments related to reading list, course material and individually-searched materials. Software for statistical analysis will be used.

## Examination

If there is a decision on special educational support, in accordance with the Guideline Student's rights and obligations at Luleå University of Technology, an adapted or alternative form of examination can be provided. For the grade pass, it is required that the student achieve the course objectives through the following examination parts:

- Objectives 1-3 are examined through individual examination
- Objectives 4-7 are examined through written assignment
- Objective 8 is examined through written assignment

Grading criteria for pass and pass with distinction are stated in the study guide.

## Remarks

This course is given for second-cycle studies. Study supervision is provided in the course room in Fronter.

## Overlap

The course S7022H is equal to S7042H

## Literature. Valid from Autumn 2015 Sp 1

Carter, R Ed (2011). Rehabilitation Research Principles And Applications. Elsevier Health Sciences , ISBN: 9781437708400

Granskär, M. & Höglund-Nielsen, B. (2008) Tillämpad kvalitativ forskning inom hälso-och sjukvård. Studentlitteratur AB. Lund.

Scientific articles and copied material to be added

## Course offered by

Department of Health Sciences

## Items/credits

Number	Type	Credits	Grade
0001	Individual exam	3.5	U G VG
0002	Assignment report	3.5	U G VG
0003	Assignment report	0.5	U G VG

## Last revised

by 2015-02-12

## Syllabus established

by Prefekt vid Institution för hälsovetenskap 2013-02-18