



**Karolinska  
Institutet**

Course syllabus for

# **Research Methods and Statistics in Speech and Language Pathology and Audiology, 7.5 credits**

Forskningsmetod och statistik i logopedi och audiologi, 7.5 hp

This course syllabus is valid from autumn 2020.

Please note that the course syllabus is available in the following versions:

Autumn2017 , Autumn2019 , Autumn2020 , Autumn2022

Course code	2QA271
Course name	Research Methods and Statistics in Speech and Language Pathology and Audiology
Credits	7.5 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Audiology, Speech and Language Pathology
Level	Second cycle, has only first-cycle course/s as entry requirements
Grading scale	Pass, Fail
Department	Department of Clinical Science, Intervention and Technology
Decided by	Utbildningsnämnden CLINTEC
Decision date	2016-12-08
Revised by	Education committee CLINTEC
Last revision	2020-02-12
Course syllabus valid from	Autumn 2020

## **Specific entry requirements**

Degree of Master of Science in Speech and Language Pathology or Degree of Bachelor of Science in Audiology of at least 180 credits. Or Degree of Bachelor in audiology. In addition, proficiency in Swedish and English equivalent to Swedish B/Swedish 3 and English A/English 6.

## **Objectives**

The student should be able to:

- Apply specific criteria to evaluate the validity of clinical tests and rating instruments in speech-language pathology and audiology
- Discuss and justify methods to evaluate reliability and validity of clinical scales and test batteries
- Suggest and carry out appropriate statistical analyses to evaluate treatment outcomes

# Content

The course covers themes as how the diagnostic accuracy of instruments in audiology and logopedics can be evaluated with clinical research methods and how reliability and validity are established for rating scales and test batteries. Also statistical analysis of treatment outcomes with various types of data is discussed.

## Teaching methods

Lectures, seminars, demonstrations and practical exercises as well as written and oral presentation.

## Examination

For passed course is required active participation in seminars and written and oral presentation of final report. Any absence is supplemented by implementation of equivalent activity at other occasion.

If there are special grounds, or a need for adaptation for a student with a disability, the examiner may decide to deviate from the syllabus's regulations on the examination form, the number of examination opportunities, the possibility of supplementation or exemptions from the compulsory section/s of the course etc. Content and learning outcomes as well as the level of expected skills, knowledge and abilities may not be changed, removed or reduced.

## Transitional provisions

Examination will be provided during a period of two years after a possible closing of the course. Examination can be carried out according to an earlier literature list during a period of one year after the date of a renewal of the literature list.

## Other directives

Course evaluation will be carried out in accordance with the guidelines established by the Board of Higher Education. The course evaluation will be web-based. Language of instruction: Swedish.

## Literature and other teaching aids

*Björk, Jonas*

**Praktisk statistik för medicin och hälsa**

1. uppl. : Stockholm : Liber, 2011 - 327 s.

ISBN:91-47-10343-4 (korr.) LIBRIS-ID:12055810

[Library search](#)

*Borg, Elisabet; Westerlund, Joakim*

**Statistik för beteendevetare. : Faktabok**

3., [uppdaterade och omarb.] uppl. : Malmö : Liber, 2012 - 552 s.

ISBN:978-91-47-09737-1 (korr.) LIBRIS-ID:13434322

[Library search](#)

*Dollaghan, Christine A.*

**The handbook for evidence-based practice in communication disorders**

Baltimore : Paul H. Brookes Pub., c2007 - xi, 169 p.

ISBN:978-1-55766-870-7 (alk. paper) LIBRIS-ID:10591236

URL: <http://www.loc.gov/catdir/toc/ecip0716/2007017769.html>

[Library search](#)

*Howell, David C.*

**Statistical methods for psychology**

8th ed., International ed. : [Belmont, Calif?] : Wadsworth Cengage Learning, c2013. - xix, 770 p.

ISBN:9781408088647 LIBRIS-ID:16412112

[Library search](#)

*Irwin, David; Pannbacker, Mary H.; Lass, Norman J.*

**Clinical research methods in speech-language pathology and audiology**

2nd ed. : San Diego : Plural Pub., c2014. - xix, 333 p.

ISBN:9781597565080 LIBRIS-ID:19887339

[Library search](#)

*Tabachnick, Barbara G.; Fidell, Linda S.*

**Using multivariate statistics**

6th ed., International ed. : Boston, [Mass.] : Pearson, c2013. - xxxi, 983 p.

ISBN:0205890814 LIBRIS-ID:13543104

[Library search](#)