



**Karolinska  
Institutet**

Course syllabus for

## **Hearing assessment 2, 7.5 credits**

Hörselutredning 2, 7.5 hp

This course has been cancelled, for further information see Transitional provisions in the last version of the syllabus.

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

Autumn2011 , Autumn2012 , Autumn2013 , Autumn2014

Course code	1AU028
Course name	Hearing assessment 2
Credits	7.5 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Audiology
Level	G1 - First cycle 1
Grading scale	Pass, Fail
Department	Department of Clinical Science, Intervention and Technology
Decided by	Programnämnd 4
Decision date	2011-05-04
Revised by	Programnämnd 4
Last revision	2013-05-06
Course syllabus valid from	Autumn 2013

## **Specific entry requirements**

For admission to the course, it is required that the student has managed at least 45 HE credits from Semester 1-2 and a Pass grade in Part 1 and 2 from the course Hearing assessment 1.

## **Objectives**

The course builds further on the course Hearing assessment 1.

The general aims of the course are that the student should be well familiar with impedance audiometrical and electrophysiological methods of measurement. Further, the students should acquire knowledge and skills in deeper hearing assessment and hearing-assessment planning, interpretation of measurement result and practical knowledge through placement. The course constitutes basis for future courses in hearing rehabilitation.

The expected learning outcomes of the course

On completion of the course, the student should:

-independently be able to explain document, compare and interpret results of impedance audiometrical and electrophysiological methods of measurement and review these critically in relation to the tone

audiogram

- explain and identify how different sources of errors can influence the measurement results
- independently be able to suggest a test battery for commonly occurring audiology diagnoses
- independently be able to give correct patient instructions for and carry out impedance - and brain-stem audiometry and under supervision carry out otoacoustic emissions

## Content

**Hearing assessment, 5.5 hp** The course introduces impedance audiometry and electrophysiological measurements. Measurement accuracy is reviewed from concept as reliability and validity. The methods of measurement include impedance audiometry such as tympanometry and acoustic-reflex metrics and brain-stem audiometry and other electrophysiological measurements. The course also focuses on planning and selection of testing methods with a differential diagnosing and hearing rehabilitation purpose. Selection of adequate test battery from medical history, ear status and tone audiograms and interpretation of the measurement results are treated. Problem-solving and critical review are trained from patient cases and measurement results. The course also contains aspects as communication and patient approach in the hearing-healthcare. Strong emphasis is placed at both theoretical understanding of the different methods of measurement as practical management of measuring equipment. New research results concerning current methods of measurement will be presented and discussed. **Clinical education and laboratory assignments, 2 hp** This part focuses on practical training in impedance-audiometrical and electrophysiological tests and the interpretation of measurement results and critical review. Otoscopy and inspection of the ear canal and training in to take medical history and to give information and instructions to the patient is included in the preparations before all audiometries.

## Teaching methods

Lectures, seminars, laboratory sessions and clinical education.

Seminars, laboratory sessions and clinical education are compulsory. In case of absence from compulsory part, the student is responsible for contacting course coordinator for complementary assignment.

The course director assesses how absence from compulsory education elements can be compensated for. Before the student has participated in the compulsory parts or has replaced compulsory education, in accordance to the instructions of the course coordinator, the final study results cannot be reported. Absence from a compulsory education element may result in that the student can not recover the occasion until next time the course is given.

## Examination

Hearing assessment, 5.5 credits

Written examination

Clinical education and laboratory assignments, 2 credits

Clinical education

Clinical tests

Active participation in laboratory sessions and seminars

For a Pass grade in the course, attendance and active participation in compulsory parts are also required. For students who have not passed the regular examination, possibility for examination is offered at a total of six examinations, of which the three last in connection to the next occasion when the course is given. As examination, the times are counted that the student participated in the same test. Supplementary additions to written assignment is counted as an examination. Before the student starts with clinical education, compulsory laboratory sessions and exercises should be passed.

At a failure of clinical education, an individual action plan should be established, where it is stated which activities and examinations that are required before the student is given possibility to new

placement on this course. The examiner can with immediate impact interrupt a student's clinical education (VFU) if the student shows such serious deficiencies in knowledge, skills or attitudes that the patient security or the patients' trust for the healthcare are jeopardised. When clinical education is interrupted in this way the student fails on current parts and one clinical education opportunity is used up. For students who has failed the clinical education is offered yet another period of placement, i.e. total two clinical education periods.

## Transitional provisions

Examination can take place according to earlier literature list during a time of a year after a renewal of the literature list. Examination will be provided during a time of two years after a possible close-down of the course.

## Other directives

Study material containing assessment criteria for examination, specific instructions for certain tasks and timetable with specification of compulsory parts and list of responsible teachers be distributed at the beginning of the course.

A course evaluation will be carried out according to the guidelines that are established by the Board of education. The course evaluation is carried out both through a written course evaluation at the end of the course and and through oral course forum, at least once, in connection with course, where students can state their opinions.

## Literature and other teaching aids

### **Audiology : diagnosis**

*Roeser, Ross J.; Valente, Michael.; Hosford-Dunn, Holly.*

2. ed. : New York : Thieme, cop. 2007 - xiii, 602 p., [10] p. of plates

ISBN:978-1-58890-542-0 (TPN) LIBRIS-ID:10535323

[Library search](#)

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### **Handbok i hörselmätning**

*Almqvist, Bengt*

[Ny utg.] : Bromma : SAME och C-A Tegner AB, 2004 - 242 s.

ISBN:91-631-4908-7 LIBRIS-ID:9481154

[Library search](#)

### **Metodbok i praktisk hörselmätning**

*Almqvist, Bengt*

[2. uppl.] : Bromma : C-A Tegnér, 2004 - 208 s.

ISBN:91-631-4909-5 LIBRIS-ID:9625710

[Library search](#)

Scientific papers and other relevant materials may be added.

*Cotroneo, Umberto*

### **Understanding impedance measurement**

Copenhagen : Oticon, Cop. 1989 - 101 s.

LIBRIS-ID:8225881

*Elberling, Claus; Osterhammel, Poul Aabo*

### **Auditory electrophysiology in clinical practice**

Copenhagen : Oticon, [1989?] - 101 s.

LIBRIS-ID:2485765

*Hall, James W.q (James Wilbur)*

**Handbook of otoacoustic emissions**

San Diego, Calif. : Singular Thomson Learning, 2000 - xi, 635 p.

ISBN:1-56593-873-9 LIBRIS-ID:8618676

[Library search](#)