



**Karolinska  
Institutet**

Course syllabus for

## **Sound perception, 7.5 credits**

Ljudperception, 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:

Spring2009 , Autumn2010 , Autumn2011 , Autumn2012 , Autumn2013 , Autumn2014

Course code	1AU005
Course name	Sound perception
Credits	7.5 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Audiology
Level	G2 - First cycle 2
Grading scale	Pass, Fail
Department	Department of Clinical Science, Intervention and Technology
Decided by	Programnämnden för audionomprogrammet
Decision date	2008-10-22
Revised by	Programnämnd 4
Last revision	2011-05-04
Course syllabus valid from	Autumn 2011

## **Specific entry requirements**

For admission to the course the student have had completed at least 80 % (48 credits) of courses at semester 1 and 2.

## **Objectives**

The general aim of the course is to give the student basic knowledge of how humans observe and experience sounds, and about psychoacoustic concepts and methods of measurement. Learning outcomes of the course On completion of the course, the student should be able to describe and explain concepts such as auditory threshold, loudness, masking, time and frequency resolution, and binaural hearing phenomena, and be able to relate these concepts to the normal hearing individual's experience of sound and how this can be measured, be able to relate the most common types of hearing impairments to perceptual consequences, be able to critically choose and apply simple psychoacoustic methods of measurement.

## **Content**

Part 1: Auditory perception (Auditory perception) 6 HE credits. This part clarifies how humans observe and experience sounds. The emphasis is on perception, but the course also includes cognitive aspects of hearing. Basic psychoacoustics is the main part of the course. Here, human perception of different physical properties of sound is treated. Concepts such as auditory threshold, loudness, masking, time and frequency resolution and localisation are discussed in detail. The normal hearing is treated as well as perceptual consequences of the most common types of hearing impairments. Part 2: Psychoacoustical measurements (Psychoacoustical measurements) 1.5 HE credits. In this part, psychoacoustical methods of measurement are treated. Here, the performance of psychoacoustical measurements, in theory and practice, is treated.

## **Auditory perception, 6.0 hp**

Grading scale: GU

## **Psychoacoustical measurements, 1.5 hp**

Grading scale: GU

## **Teaching methods**

Lectures, laboratory sessions, seminars, an interactive computer program are provided as a complement to selfstudy.

## **Examination**

Examination takes place through Part 1: Auditory perception, 6 HE credits Written examination Part 2: Psychoacoustical measurements, 1.5 HE credits Written laboratory report For a Pass grade in the course, attendance at compulsory parts is also required. In case of absence from a compulsory part, the student gets an individual complementary assignment determined by the course coordinator. Students who have not passed the regular examination are offered one re-examinations in connection with the regular opportunity and one more before the course take part next time. All in all, there is a possibility of six examinations, the last three of which are provided in connection with the next regular course.

## **Transitional provisions**

Examination may take place under the previous reading list during a period of one year after the date of the renewal of the reading list. Examination will be provided during a period of two years after a close-down of the course.

## **Other directives**

A study guide is distributed at the beginning of the course, comprising assessment criteria for examination, specific instructions for certain tasks, a timetable specifying compulsory parts, and a list of responsible teachers. Course evaluation will be carried out in accordance with the guidelines established by the Board of Education. Course evaluation will be carried out both through a written course evaluation at the end of the course, and through an oral course forum at least once in connection with the course, where the students may express their opinions.

## **Literature and other teaching aids**

*Plack, Christopher J.*

**The sense of hearing**

Mahwah, N. J. : Erlbaum, 2005 - xi, 267 s.

ISBN:0-8058-4883-5 (alk. paper) LIBRIS-ID:10035183

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*SAME*

### **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

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*Stadler, S; Olsen, H; Johnson, A-C*

### **Auditiv perception – ett interaktivt läromedel. : Ett datorprogram på CD**

Stockholm : Karolinska Institutet, 2005

### **Audiology : diagnosis**

*Roeser, Ross J.*

New York : Thieme, 2000 - xiii, 640 s.

ISBN:0-86577-857-4 (TNY) LIBRIS-ID:6172151

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### **Hörapparatutprovning**

*Borрьd, Agneta; Smeds, Karolina; Leijon, Arne*

1. uppl. : Bromma : CA Tegnér AB, cop. 2000 - 352 s.

ISBN:91-630-9498-3 (inb.) LIBRIS-ID:8364995

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*Moore, Brian C. J.*

### **An introduction to the psychology of hearing**

5. ed. : London : Academic Press, Press,c cop. 2004 - xvi, 413 s.

ISBN:0-12-505628-1 (hft.) LIBRIS-ID:8909395

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*Moore, Brian C. J.*

### **Cochlear hearing loss**

London : Whurr, c1998 - viii, 312p

ISBN:1-86156-091-5 (pbk) LIBRIS-ID:6509600

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