



**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

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|----------------------------|---|
| 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 | 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 general aim of the course is to give the student a basic knowledge in how man notices and experiences sounds, as well as psychoacoustic concepts and methods of measurement.

The expected 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 phenomenon, and be able to relate these concepts to the normal-hearing individual's audial experience and how this can be measured
- relate the most common types of hearing impairments to perceptual consequences
- critically choose and apply simple psychoacoustic methods of measurement.

Content

Auditory perception, 6 hp This part highlights how man notices and experiences sounds. The emphasis lies on perception, but the course also include cognitive aspects of hearing. Basic psychoacoustic constitutes the main part of the course. Here is treated, how different physical properties of sound are perceived by man. Concepts as auditory threshold, loudness, masking, time - and frequency resolution and localisation are thoroughly discussed. The normal hearing is treated, as well as perceptual consequences of the most common types of hearing impairments. **Psychoacoustic measurements, 1.5 hp** In this part, psychoacoustic methods of measurement are treated. How one carries out psychoacoustic measurements is treated in theory and practice.

Teaching methods

Lectures, laboratory sessions, seminars, an interactive computer program is offered as complements to self-study.

Laboratory sessions and seminars are compulsory. In case of absence from a compulsory part, the student is responsible for contacting the course coordinator for a complementary assignment.

The course director assesses how absence from compulsory education elements may 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

Auditory perception, 6 credits

Written examination

Psychoacoustic measurements, 1.5 credits

Written laboratory report which is also presented orally

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 are 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 addition to a written assignment is counted as one examination.

Transitional provisions

Examination can take place according to earlier literature list during a time of a year after the renewal of the literature list has been made. Examination will be provided during a time of two years after a possible 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. The course evaluation will be carried out according to the guidelines that are established by the Board of education. The 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, under which the students can state 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

[Library search](#)

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

[Library search](#)

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

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

Stockholm : Karolinska Institutet, 2005

Moore BC. Perceptual consequences of cochlear hearing loss and their implications for the design of hearing aids. *Ear and Hearing*. 1996 apr;17(2):133-61.

Scientific papers and other relevant materials may be added.

Moore, Brian C. J.

An introduction to the psychology of hearing

6th ed. : Bingley : Emerald, 2012. - 441 s.

ISBN:978-1-78052-038-4 (pbk.) LIBRIS-ID:12509201

[Library search](#)

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](#)

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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