



**Karolinska
Institutet**

Course syllabus for

Cochlear Implants, 7.5 credits

Cochleaimplantat, 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 , Autumn2016

Course code	2QA187
Course name	Cochlear Implants
Credits	7.5 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Audiology
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	Styrelsen för utbildning
Decision date	2010-12-22
Revised by	Education committee CLINTEC
Last revision	2024-08-22
Course syllabus valid from	Autumn 2016

Specific entry requirements

At least 120 credits within a Degree of Bachelor of Science in Audiology or a Professional Degree or a Degree of Bachelor within speech and language pathology, technology, medicine or teaching and learning. And proficiency in Swedish and English equivalent to Swedish B/Swedish 3 and English A/English 6.

Objectives

The general aim of the course is to give an advanced knowledge in the area cochlea implants (CI).

On completion of the course, the student should be able to

- account for the anatomy and physiology of the auditory system;
- understand and discuss all issues that concern different patient categories before a decision about surgery;
- account for and analyse the different rehabilitation procedures around individuals in different ages that are operated with CI;
- understand and present to the technical function of CI;

- understand and discuss the programming of CI;
- read, understand and summarise scientific literature within a limited field that concerns CI.

Content

The course is interdisciplinary and concerns medical, educational and technical aspects of CI.

The course starts with a repetition of the anatomy and physiology of the auditory system. Different aspects and issues that concern the basis for decision if surgery are reviewed as well as the rehabilitation process. Rehabilitation is also reviewed from a wider perspective in the form of rehabilitation actions and measures for both adult and children with CI. Strong emphasis is placed at current and new research in the area. Basic theory of the technical function of CI and the signal processing be brought up as well as both theoretically and practically teaching of procedure at programming of different CI. Furthermore so comes technology and design of current hybrid implants and middle ear implants to be presented. Teaching of literature search in medical databases and project work are included.

Teaching methods

Lectures, seminars, practical exercises, auscultations and self-study. Parts of the course will be held as distance education and are sent to the course participant in the form of an electronic material that contains lectures and/or instructions to assignments. Access to computer with Internet connection is needed.

Examination

The examination consists of a scientific literature study based on scientific articles within a delimited field. The work takes place individual or in groups with 2 students in each group.

To pass the course, active participation in seminars and attendance at compulsory components are also required

A student who has failed in the regular examination is entitled to participate in five more examinations. If the student has failed six examinations/tests, no more examinations are offered. Examination occasion for which the student has registered but not participated in, does not count as a examination occasion.

Transitional provisions

This course has been canceled.

Other directives

Course evaluation will be carried out in accordance with the guidelines established by the Board of Higher Education. Course evaluation is carried out partly through a written evaluation at the end of the course and partly through oral course forum at least once during the course where the students can state his opinions.

Language of instruction: Swedish.

Literature and other teaching aids

Niparko, John K.

Cochlear implants : principles & practices

2nd ed. : Philadelphia : Wolters Kluwer Health/Lippincott Williams & Wilkins, c2009. - xii, 356 p.

ISBN:978-0-7817-7749-0 LIBRIS-ID:11690492

URL: [Länk](#)

[Library search](#)

Cooper, Huw.; Craddock, Louise C.

Cochlear implants : a practical guide

2nd ed. : London : Whurr, c2006 - xiv, 425 p.

ISBN:1-86156-481-3 (pbk.) LIBRIS-ID:10139140

[Library search](#)

Clark, Graeme

Cochlear implants : fundamentals and applications

New York : Springer, 2003 - xxxviii, 830p.

ISBN:0-387-95583-6 (alk. paper) LIBRIS-ID:8658014

URL: [Endast för användare inom LTU](#)

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