



**Karolinska  
Institutet**

Course syllabus for

# **Theory and methodology of science - specialist training in odontology 1, 15 credits**

Vetenskapsteori och forskningsmetodik inom odontologiska specialistutbildningar 1, 15 hp  
This course syllabus is valid from autumn 2011.

|                            |   |
|----------------------------|---|
| Course code                | 9OF009  |
| Course name                | Theory and methodology of science - specialist training in odontology 1 |
| Credits                    | 15 credits  |
| Form of Education          | Contract education (credits)  |
| Main field of study        | Odontology  |
| Level                      | AV - Second cycle   |
| Grading scale              | Pass, Fail  |
| Department                 | Department of Dental Medicine   |
| Decided by                 | Styrelsen för utbildning  |
| Decision date              | 2011-10-18  |
| Course syllabus valid from | Autumn 2011   |

## **Specific entry requirements**

Dental Degree of at least 180 credits.. In addition, knowledge of English equivalent to English B is required.

## **Objectives**

The main purpose with the course is that the student should acquire knowledge and an understanding of theory of science, research ethics and research methodologies within the main field of dentistry at an advanced level. The course also intends to give the student the opportunity to participate in a research and development project with an advanced scientific approach with the ability to make independent analysis, reflection and critical assessment. The student should on completion of the course independently be able to: - Explain basic scientific and epistemological concepts and relate these to their own knowledge field in dental research, - Search for information in relevant scientific medical databases and utilise their specific properties as well as be able to choose the appropriate search strategies and account for and argue for the choice of strategy, - Interpret, review and critically evaluate scientific articles, mainly within the field of dentistry, - Analyse and apply basic principles of research ethics as well as demonstrate the ability to make ethical assessments applied to their own research questions, -

Apply and interpret basic principles of statistical analytical methods, - Choose and evaluate methods relevant for a specific research question, - Give a general description of the current research in the field of dentistry.

## Content

The course covers: - Theory of Science - Research methodology - Research ethics - Research design - Literature search and critical review of scientific articles - Statistical methods of analysis

## Teaching methods

The course encompasses varying teaching methods consisting of lectures, demonstrations, journal clubs, seminars and student-activating group work. Compulsory attendance applies to all lectures, seminars and presentations. In case of absence, complementary assignment is completed after agreement with the course coordinator

## Examination

Oral and written reports at seminars, as well as written assignments. In the examination, reviews of each others' written assignments is also included. Students who do not pass a regular examination are entitled to re-sit the examination on five more occasions. If the student has failed six examinations/tests, no additional examination is given. In case a student is registered for an examination but does not attend, this is not regarded as an examination.

## 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

Language of instruction: English.

## Literature and other teaching aids

*Bland, Martin*

**An introduction to medical statistics**

3. ed., [Nachdr.] : Oxford : Oxford University Press, 2009 - XVI, 405 S

ISBN:978-0-19-263269-2 LIBRIS-ID:11926588

[Library search](#)