



**Karolinska
Institutet**

Course syllabus for

Theory and methodology of science - specialist training in odontology 2, 15 credits

Vetenskapsteori och forskningsmetodik inom odontologiska specialistutbildningar 2, 15 hp

This course syllabus is valid from autumn 2011.

Course code	9OF010
Course name	Theory and methodology of science - specialist training in odontology 2
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 as well as the course Theory and methodology of science - specialist training in odontology 1, 15p. In addition, knowledge of English equivalent to English B (with a grade of Pass) is required.

Objectives

The main purpose with the course is that the student should have acquired advanced knowledge and an understanding of theory of science, research ethics and research methodologies to be able to conduct a degree project in 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 independent analysis, reflection and critical assessment. The student should on completion of the course independently be able to: - Formulate an application for ethical approval with respect to a research project directed at a research-ethical committee, - Design, plan, write and present a research plan of a scientific area in dentistry, - Apply and interpret basic principles of statistical methods of analysis, in both qualitative and quantitative research methodology, - Give an advanced description of the current research in the field of dentistry as well as be able to propose

appropriate collaborative projects with the patient-close care to stimulate translational research, - Integrate knowledge in theory of science, research ethics and research methodology and critical review as well as demonstrate the ability to verbally summarise and discuss their own and others' reports.

Content

The course consists of the parts: - Theory of science, research methodology and design - supplementary - Individual method analysis (including literature search and report writing) - Individual application for ethical approval - Individual development of research plan

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 form of a memorandum, application for ethical approval and research plan. 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

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