



**Karolinska
Institutet**

Course syllabus for

Medical and Odontological Subsidiary Subjects

1, 11 credits

Medicinska och odontologiska stödämnena 1, 11 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:

Autumn2015 , Autumn2018

Course code	1TH025
Course name	Medical and Odontological Subsidiary Subjects 1
Credits	11 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Not applicable
Level	GX - First cycle
Grading scale	Pass with distinction, Pass, Fail
Department	Department of Dental Medicine
Participating institutions	<ul style="list-style-type: none">• Department of Neuroscience• Department of Laboratory Medicine
Decided by	Grundutbildningsnämnden, Institutionen för odontologi
Decision date	2015-04-28
Revised by	Education committee DENTMED
Last revision	2019-03-28
Course syllabus valid from	Autumn 2018

Specific entry requirements

Matematik 2a / 2b / 2c, Naturkunskap 2, Samhällskunskap 1b / 1a1+1a2 (områdesbehörighet A14).
Eller: Matematik B, Naturkunskap B, Samhällskunskap A (områdesbehörighet 16).

Objectives

The aim of the course is for the student to acquire basic knowledge about medicine and odontology which will constitute the basis for continued studies and patient treatment.

Dental anatomy/Occlusal development, 3.0 credits

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

- describe the normal development of the primary and permanent teeth.
- identify teeth and describe the anatomy of the teeth.
- identify and describe the nomenclature and structure of the teeth as well as identify and tell the difference between primary and permanent teeth.

Oral histology and cell biology, 1.5 credits

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

- describe the structure of the cell and its components.
- relate the different cell organelles to their functions.
- explain and understand the central importance of cell and molecular biology.
- characterise all stages of odontogenesis and its surrounding tissues.
- describe the histological development up to the complete tooth.
- describe the histological structure of the oral mucous membrane and be able to relate to its functions.

Functional anatomy, 3.0 credits

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

- state and identify the main anatomic structures in the musculoskeletal system, the circulatory system, the respiratory system, the digestion apparatus, the urogenital organs, the endocrine organs, the nervous system, the sensory organs and the head with medical terminology (Latin).
- relate the systematic anatomy of the musculoskeletal system, the circulatory system, the respiratory system, the digestion apparatus, the urogenital organs and the endocrine organs to the specific function that each area has.
- relate the anatomy of the nervous system and the sensory organs to their functions.
- explain the relationship between the anatomy of the head and the functions of the head in the musculoskeletal system, the circulatory system, the respiratory system, the digestion apparatus, the endocrine organs, the nervous system and the sensory organs.

General and oral microbiology, 3.5 credits

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

- explain the structure, metabolism, proliferation and pathogenicity of microorganisms.
- describe immunological and infectious responses
- describe current guidelines for hygiene procedures and disease control within dental care, and work according to basic hygiene routines.
- reflect on the importance of microorganisms and the immune system for the development of the most common dental diseases.

Content

The course consists of four modules.

Dental anatomy/Occlusal development, 3.0 hp

Grading scale: VU

The content of this module is focused on the normal development of the primary and permanent teeth and treats the anatomy, nomenclature and structure of the teeth.

Oral histology and cell biology, 1.5 hp

Grading scale: GU

This module emphasises the importance of cell and molecular biology and treats the formation of cells

and tissues and the structure and function of the oral mucous membrane. This module also treats embryology and the development of teeth from a histological perspective.

Functional anatomy, 3.0 hp

Grading scale: VU

This module includes medical terminology, the anatomy of the musculoskeletal system, the anatomy of the circulatory system, the anatomy of the respiratory system, the anatomy of the digestion apparatus, the anatomy of the urogenital organs, the anatomy of the endocrine organs, the anatomy of the nervous system, the anatomy of the sensory organs and the anatomy of the head.

General and oral microbiology, 3.5 hp

Grading scale: VU

This module treats the structure and function of microorganisms and basic immunology. The term normal flora as well as the most common and most important pathogenic microorganisms and their influence on the host responses are discussed. The focus is on oral microbiology and the microorganisms associated with oral health. Basic knowledge about hygiene and disease transmission are also included in the course.

Teaching methods

Dental anatomy/Occlusal development 3.0 credits

The study forms consist of lectures, seminars, clinical demonstration, pair and group work and self-study.

Oral histology and cell biology 1.5 credits

The study forms are constituted by lectures and self-study with study questions.

Functional anatomy 3.0 credits

The study forms are constituted by lectures and group work with model studies and self-study.

General and oral microbiology 3.5 credits

The study forms are constituted by lectures, seminars, practical exercises, laboratory sessions and self-study.

For all modules compulsory participation in seminars, demonstrations, pair and group work and laboratory sessions applies.

The course coordinator decides whether and if so how absence from compulsory course elements can be made up. Study results cannot be reported until the student has participated in compulsory course elements or compensated for any absence in accordance with instructions from the course coordinator. Absence from a compulsory course element could mean that the student can not retake the element until the next time the course is offered.

Examination

Dental anatomy/Occlusal development 3.0 credits

Individual written examination and compulsory participation in clinical demonstration.

Oral histology and cell biology 1.5 credits

Individual written examination.

Functional anatomy 3.0 credits

Individual written examination.

General and oral microbiology 3.5 credits

Individual written examination and approved practical exercises and laboratory sessions.

To achieve the pass with distinction grade for the whole course, the pass with distinction grade is required on all parts in the modules Dental anatomy/Occlusal development, Functional anatomy and General and oral microbiology, and at least a pass grade in oral histology and cell biology.

Limitation of number of test or practical training sessions

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. Each occasion the student participates in the same test counts as an examination. Submission of a blank exam paper is regarded as an examination. In case a student is registered for an examination but does not attend, this is not regarded as an examination.

Transitional provisions

The course has been cancelled and was offered for the last time in the autumn semester of 2018. Examination will be provided until the autumn of 2020 for students who have not completed the course.

Other directives

- A course evaluation will be carried out according to the guidelines established by the Board of Education.
- This course may not be included in a higher education qualification along with a completed course whose contents completely or partly correspond to this course.

Literature and other teaching aids

Nanci, Antonio

Ten Cate's oral histology : development, structure, and function

Ten Cate, Arnold Richard

8. ed. : St. Louis : Elsevier, cop. 2013 - xiii, 379 s.

ISBN:9780323078467 LIBRIS-ID:13486028

[Library search](#)

Erlanson-Albertsson, Charlotte; Gullberg, Urban

Cellbiologi

2., [rev. och uppdaterade] uppl. : Lund : Studentlitteratur, 2007 - 350 s.

ISBN:978-91-44-04738-6 LIBRIS-ID:10532220

[Library search](#)

Sand, olav; et al

Människokroppen : Fysiologi och anatomi

Stockholm : Liber, 2007 - 544s

ISBN:9789147084357

[Library search](#)

Halsens och huvudets deskriptiva och topografiska anatomi

Albiin, Nils

Lund : Studentlitt., 1982 - 164, [9] s.

ISBN:91-44-17811-5 LIBRIS-ID:7276881

[Library search](#)

Melhus, Åsa

Klinisk mikrobiologi för sjuksköterskor

1. uppl. : Stockholm : Norstedt, 2010 - 413 s.

ISBN:978-91-1-302283-3 LIBRIS-ID:11506698

[Library search](#)

Chiego, Daniel J.

Essentials of oral histology and embryology : a clinical approach

4. ed. : St. Louis, Mo. : Elsevier Mosby, cop. 2014 - viii, 221 s.

ISBN:9780323082563 (pbk.) LIBRIS-ID:14677200

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