



**Karolinska
Institutet**

Course syllabus for

Children's and Adolescent Dentistry, 22.5 credits

Barn- och ungdomstandvård, 22.5 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:

Autumn2010 , [Spring2015](#) , [Autumn2015](#) , [Autumn2018](#) , [Autumn2020](#) , [Autumn2021](#)

Course code	2TL028
Course name	Children's and Adolescent Dentistry
Credits	22.5 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Odontology
Level	AV - Second cycle
Grading scale	Pass, Fail
Department	Department of Dental Medicine
Decided by	Programnämnd 10
Decision date	2010-06-30
Course syllabus valid from	Autumn 2010

Specific entry requirements

Chemistry B, Physiology B, Mathematics D, Biology B

Objectives

The course contains 5 parts Part 1 Orthodontics 1, 4.5 HE credits After the course, the student should be able to account for the aetiology of the malocclusions be able to understand and describe the craniofacial development pre - and postnatally and the occlusal development from primary to permanent bite be able to understand and describe indications of commonly occurring orthodontic treatments in consultation with the teachers be able to diagnose malocclusions and select patients with orthodontic treatment needs in consultation with the teachers be able to make a preliminary treatment planning before an orthodontic treatment carry out simple interceptive orthodontic treatments in consultation with an ortodontist in consultation with teachers be able to carry out retention controls of patients with completed orthodontic treatment Part 2 Orthodontics 2, 4.5 HE credits After the course, the students should be able to independently supervise the normal occlusal development from primary to permanent bite at the proper time diagnose malocclusions and select patients with orthodontic treatment needs formulate referrals for orthodontic treatment with adequate information about children and adults with orthodontic treatment needs account for the occlusal development and the common treatment procedure for patients with cleft lip and palate fissure carry out adequate cariologic and periodontal treatment of

patients with fixed brace understand and account for differences in treatment with fixed and removable brace inform patients and parents of indications and contraindications for commonly occurring orthodontic treatments, and about the risks with untreated malocclusions account for craniofacial syndromes Part 3 Pedodontics 1, 6.7 HE credits After the course, the students should: have good knowledge of the psychomotor development and somatic growth of children be able to communicate with children and introduce various parts in the dental care in an age-adequate way, on the basis of pedagogical methods be able to register caries lesions, diagnose caries disease, investigate and analyse caries causal factors in the primary bite, and in the alternating bite, assess caries risk, prognosis for further caries progression, formulate and evaluate individual prevention programs, carry out filling therapy in primary and permanent teeth and assess the quality of the completed treatment be able to account for indications and contraindications of and carry out local anesthesia before surgery caries treatment and surgery be able to account for normal development and eruption of primary and permanent teeth and local and general disorders in the mineralisation and eruption of the teeth be able to register, diagnose, investigate and treat gingivitis and its causal factors, plaque, supra and subgingival calculus, and assess the general conditions in pre-school children and schoolchildren be able to account for indications and performance of extractions of primary and permanent teeth be able to diagnose and prognosticate traumatic injuries in the oral cavity of children in pre-school age be able to carry out adequate acute treatment of lesions in teeth and surrounding tissues of children in pre-school age Part 4 Pedodontics 2, 6 HE credits After the course, the students should : be able to carry out a teaching session in dental care for children and adolescents on pre-school or in school be able to account for and have certain clinical experience of various forms of sedation of children and youths be able to diagnose caries in permanent bite, assess caries risk and prognosis for further caries progression and treat caries lesions in primary and permanent teeth including in stages excavating can be diagnosed and investigate gingivitis and periodontitis, and its causal factors, plaque, supra and subgingival analysis and connections with patient's general conditions in adolescents can be diagnosed and prognosticate traumatic injuries in teeth and surrounding tissues in schoolchildren and adolescents be able to conduct adequate acute treatment and follow-up of injuries on teeth and surrounding tissues on schoolchildren and adolescents pulpa amputation according to a partial Cvek treat abnormalities in the primary bite be able to account for diagnostics and treatment of temporomandibular dysfunction of children and youths be able to account for chronic diseases and disabilities and their oral manifestations in children and adolescents and diagnose, prevent and treat oral diseases in these children and youths be able to account for multiprofessional cooperation in the treatment of children and youths with oral diseases and chronic diseases or disability Part 5 Pediatrics 0.8 HE credit After the course, student should be able to: account for how the health care for children is organised, children's right in the society, the child convention and the importance of socio-economic factors for the health of children account for the normal physical and mental development of the child and normal feeding be familiar with the panorama of diseases affecting children and youths account for the symptoms of the most common childhood diseases account for chronic diseases and disabilities in children and youths

Content

Part 1 Orthodontics 1, 4.5 HE credits The lectures comprise occlusal development in the primary and permanent bite, embryology, pre - and postnatal growth, craniofacial development, classification and aetiology of malocclusions, orthodontic treatment, tissue reactions and iatrogen effects of orthodontic treatment. The demonstrations deal with model analysis, impressing, profile X-ray analysis, classification and diagnostics of malocclusions in the primary and permanent bite, orthodontic apparatus, and selection of patients with orthodontic treatment needs. The clinical education is focused on growth and occlusal development. Assessment of treatment needs and assessment of a date for an interceptive treatment are the most important aims. In patient consultations, orthodontic diagnostics and patient selection are trained. Pre-clinical training is carried out by means of a patient simulator. In order to increase the knowledge of interceptive orthodontics, a patient with interceptive orthodontic treatment needs is followed from registration and treatment planning to a completed treatment. Part 2 Orthodontics 2, 4.5 HE credits The lectures in orthodontics comprise indications and contraindications of orthodontic treatment, prognosis, treatment needs and aims, soft tissue function and environmental factors, adults orthodontics and cooperation, other specialities and also periodontal risk assessment in orthodontic

treatment. The lectures in orthodontics comprise innate cleft lip and palate defects, syndromes and orthognate surgery. The demonstrations deal with diagnosis and treatment of different malocclusions. Special emphasis is placed on a date for diagnosis and orthodontic consultation. The clinical teaching aims to train assessment of bite development and treatment needs, checks of patients on completion of orthodontics, and hygiene procedures during on-going orthodontic treatment. Theme days are held on interceptive orthodontics and also together with the Pedodontic clinic on the treatment of malocclusions in specific patient groups. Part 3 Pedodontics 1, 6.7 HE credits The clinical training in pedodontics provides: The normal development of the child and applied child psychology Prevention of oral diseases in children and youths Local anesthesia for the growing individual X-ray technique for children and youths Odontogenesis and eruption disorders Caries of children and adolescents Gingivitis and periodontitis in children and youths Oral pathologic changes in soft tissues Endodontics of children and adolescents Common surgeries in children and youths Traumatic dental injuries in the primary bite Part 4 Pedodontics 2, 6 HE credits Prevention including a teaching session in dental care Sedation of children and youths Caries in children and adolescents, including treatment of teeth with injuries in mineralisation Periodontal diseases in adolescents Oral surgeries and dental infections Traumatic dental injuries in the permanent bite Interceptive orthodontics, temporomandibular dysfunction in children and youths, and oral-motoric changes Oral health in children and youths with chronic diseases and disabilities. Part 5 Pediatrics 0.8 HE credit The child in today's society The psychomotor development Acute and chronic diseases in children and youths Functional disabilities

Orthodontics 1, 4.5 hp

Grading scale: GU

Orthodontics 2, 4.5 hp

Grading scale: GU

Pedodontics 1, 6.7 hp

Grading scale: GU

Pedodontics 2, 6.0 hp

Grading scale: GU

Paediatrics, 0.8 hp

Grading scale: GU

Teaching methods

Part 1 Orthodontics 1, 4.5 HE credits Lectures, demonstrations, attendance as observers at dentists during the specialist education and clinical proficiency training. Demonstrations, seminars and clinical shifts are compulsory. Part 2 Orthodontics 2, 4.5 HE credits Lectures, demonstrations, seminars, theme days, attendance as observers of dentists during specialist education and clinical proficiency training Demonstrations, seminars, theme days and clinical shifts are compulsory. Part 3 Pedodontics 1, 6.7 HE credits Lectures, demonstrations, case seminars, theme days, attendance as observers of specialist dentists and clinical proficiency training. Demonstrations, seminars, theme days and clinical shifts are compulsory. Part 4 Pedodontics 2, 6 HE credits Lectures, demonstrations, case seminars, theme days, attendance as observers of specialist dentists and clinical proficiency training. Part 5 Pediatrics 0.8 HE credit Lectures. Compulsory attendance at lectures. In case of absence, the student should demonstrate that the equivalent knowledge has been acquired through a written presentation.

Examination

Part 1 Orthodontics 1, 4.5 HE credits Written examination. Part 2 Orthodontics 2, 4.5 HE credits Oral examination. Part 3 Pedodontics 1, 6.7 HE credits Written examination. A passed written test implies 5% bonus on the examination. No re-examination session is provided. Part 4 Pedodontics 2, 6 HE credits Written examination. Approved clinical service, approved log book, completed teaching session in dental care in pre-school or school, four structured clinical observation tests completed, For a Pass grade in the course, 75% attendance is required in all lectures, case seminars and theme days. If the student does not attend a seminar, the equivalent information should be acquired and presented in writing. Part 5 Pediatrics 0.8 HE credit A written examination part is included in the pedodontic examination. Limited number of examinations or practical training sessions If the student does not pass the examination, the student gets 2 more attempts, a written and then an oral examination. After that, the student is recommended to retake the course and is given 3 more examination opportunities. If the student has not passed after 6 trials, he/she has no more admission to the course. (HF chapter 6, section 11 a).

Transitional provisions

If the course is closed-down or undergoes major changes, examination under a previous reading list and learning outcomes are offered, no more than one academic year (no more than 2 examinations in addition to regular examinations) after the implementation of the revision/close-down.

Other directives

Course evaluation is carried out according to the guidelines established by the Board of education.

Literature and other teaching aids

Mitchell, Laura

An introduction to orthodontics

2. ed. : New York : Oxford University Press,
ISBN:0-19-263184-5

[Library search](#)

Andreasen, J.O. (red.)

Traumatic dental injuries : a manual

2. ed. : Oxford : Blackwell Munksgaard, 2003
ISBN:1-4051-1108-9

[Library search](#)

Pediatric dentistry : a clinical approach

Koch, Göran; Poulsen, Sven

Copenhagen : Munksgaard, cop. 2001 - 482 s.
ISBN:87-16-12271-2 LIBRIS-ID:7199844

[Library search](#)