



**Karolinska
Institutet**

Course syllabus for

Clinical course in orthodontics - orthodontic biomechanics and treatment techniques, 15 credits

Klinisk kurs i ortodonti - ortodontisk biomekanik och behandlingsteknik, 15 hp
This course syllabus is valid from autumn 2011.

Course code	9OF007
Course name	Clinical course in orthodontics - orthodontic biomechanics and treatment techniques
Credits	15 credits
Form of Education	Contract education (credits)
Main field of study	Odontology
Level	AV - Second cycle
Grading scale	Fail (U) or pass (G)
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

- choose and evaluate the advantages and disadvantages of various orthodontic materials - investigate and plan the force system for optimal tooth movement - integrate and assess the desired and iatrogenic effects of orthodontic force - demonstrate a deeper understanding of and be able to independently perform the treatment with fixed and removable orthodontic appliances - demonstrate a deeper understanding of and be able to independently perform treatment with extra-oral appliances - demonstrate a deeper understanding of and be able to independently install retention devices - demonstrate a deeper understanding of and be able to identify indications for skeletal anchorage system - practically perform patient treatments with application of at least one treatment technique - demonstrate a sound knowledge of other additional treatment techniques.

Content

Orthodontic biomechanics. Orthodontic devices (fixed, removable, functional, extra-oral, retention). MBT treatment technique. Self-ligating bracket system, Lingual technique, mini-implants. Iatrogenic effects.

Teaching methods

Work with simulators. Study of textbook chapters on biomechanics. Lectures on orthodontic treatment techniques. Clinical observation in clinics in which so-called Lingual orthodontics is used. Hands-on course of training in the application of mini-implants. Patient treatment under supervision.

Examination

Written examination of biomechanics and treatment methods and their application in the treatment. Clinical audit and reports to the supervisors of at least 30 cases of patients treated. Presentation and assessment of randomly selected cases for the external examiner.

Other directives

Language of instruction: English.

Literature and other teaching aids

McLaughlin, Richard P.; Bennett, John C.; Trevisi, Hugo J.

Systemized orthodontic treatment mechanics

Edinburgh : Mosby, 2001 - 324 s.

ISBN:0-7234-3171-X LIBRIS-ID:8302894

[Library search](#)

Mulligan, Thomas F.; Mulligan, Thomas F.

Common sense mechanics in everyday orthodontics

Phoenix, Ariz. : CSM Publishing, 1998 - xvii, 354 p.

LIBRIS-ID:8875259

Nanda, Ravindra

Biomechanics and esthetic strategies in clinical orthodontics

St. Louis, Mo. : Elsevier Saunders, cop. 2005 - xiii, 385 p.

ISBN:0-7216-0196-0 LIBRIS-ID:10043337

[Library search](#)

Ludwig, Björn

Mini-implants in orthodontics : innovative anchorage concepts

London : Quintessenz, 2008 - xi, 188 p.

ISBN:97818509717440 LIBRIS-ID:10958511

[Library search](#)

Orthodontic materials : scientific and clinical aspects

Brantley, William A.; Eliades, Theodore

Stuttgart : Thieme, 2001 - 310 s.

ISBN:3-13-125281-2 LIBRIS-ID:4669506

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