

# Opasraportti

## LTK- Dentistry (2011 - 2012)

### 1. INSTITUTE OF DENTISTRY

#### 1.1. ECTS Departmental Coordinator

DDS, PhD, Senior Research Fellow Virpi Harila

Tel: +358 8 537 5011

Fax: +358 8 537 5503

virpi.harila(at)oulu.fi

#### 1.2. General description of the Institute of Dentistry

The Institute of Dentistry at Oulu University is one of three Dental Schools in Finland giving both under and post-graduate dental education. Our specific mission is to educate scientifically thinking, clinically competent professional dentists, dental specialists and doctors of dental science. The website of the Institute can be found at <http://www.oulu.fi/hamm/eng1.html>

#### Head of Department

DDS, PhD, Professor of Oral development and Orthodontics, Pertti Pirttiniemi

e-mail pertti.pirttiniemi(at)oulu.fi, tel +358 (0)8 537 5491

#### Research areas

The Institute of Dentistry is divided into seven departments. All departments are headed by full professors who are in charge of the research and training in respective areas. Research is also carried out in co-ordination with several departments both within and outside the University of Oulu. For details of research projects see links to Departments:

- [Department of Community Dentistry](#) (Professor Jorma Virtanen)
- [Department of Diagnostics and Oral Medicine](#) (Professor Tuula Salo)
- [Department of Oral development and Orthodontics](#) (Professor Pertti Pirttiniemi)
- [Department of Oral and Maxillofacial Surgery](#) (Professor Kyösti Oikarinen)
- Department of Pedodontics, Cariology and Endodontology (Professor Leo Tjäderhane)
- [Department of Periodontology and Geriatric Dentistry](#) (Professor Tellervo Tervonen)
- Department of Prosthetic Dentistry (Professor Aune Raustia)

### 2. Information on Degree Programme

#### 2.1. General description

The degree of Licentiate of Dentistry is 330 ECTS credits. An academic year consists of 60 credits. The studies are pre-scheduled and the average time required to complete the degree is five and a half years.

In Finland, [the National Supervisory Authority for Welfare and Health](#) is responsible for awarding legal status to dentists and for overseeing the profession. After having the dental degree, the graduate applicant can apply for restricted legal recognition from the National Supervisory Authority for Welfare and Health. This entitles dentist to take certain posts in health care centres under supervision and guidance. After the graduates have worked for nine months under supervision the National Supervisory Authority for Welfare and Health grants them full recognition, which is the prerequisite for working as a private practitioner and for applying for posts and duties in the field of dentistry in Finland.

Studies in dentistry consist of preclinical and clinical phases including theoretical studies, phantom courses and clinical work with patients. Students have their first contacts with patients already at the preclinical phase of the curriculum. In order to arrange teaching to cover more comprehensive themes certain subjects from different departments have been integrated and taught together.

The theoretical studies during the first two preclinical years consist of cell biology; anatomy, physiology, biochemistry and public health. After this stage the studies continue at the facilities of the Institute of Dentistry for three years period. Clinical phase comprises of lectures, clinical demonstrations, teamwork and actual clinical work with patients. The work with the patients gives the students the necessary skills in clinical diagnostics and treatment procedures.

## 2.2. Qualification awarded

Licentiate of Dentistry, (Equivalent to D.D.S. degree in Anglo-American countries)

## 2.3. Admission requirements

The admission requirements for studies in dentistry comprise the Matriculation Examination Certificate and an entrance examination. All applicants have to participate in the national entrance examination, which is usually arranged in May. The entrance examination is based on Finnish or Swedish textbook and consists of integrated problems of chemistry, biology and physics. The language of the entrance examination is Finnish.

## 2.4. Educational and professional goals

The education is based on competence areas that include thorough knowledge on general medicine, oral biology, materials, society and management; good diagnostic, practical and interaction skills; ability in acquiring and assessing information as well as humanity. The competences follow the seven domains that are described by [Association for Dental Education in Europe](#) (ADEE). These have been identified to represent the broad categories of professional activity and concerns that occur in the general practice of dentistry.

- I. Professionalism
- II. Interpersonal, Communication and Social Skills
- III. Knowledge Base, Information and Information literacy
- IV. Clinical Information Gathering
- V. Diagnosis and Treatment Planning

VI. Therapy: Establishing and Maintaining Oral Health

VII . Prevention and Health Promotion

## 2.5. Access to further studies

### Specialization

Institutes of Dentistry are also responsible for specialist training in Finland. Before entering post-graduate training, which takes from three to six years, the trainee must have worked two years in general practice. The aim of specialist training is to provide the dentists with advanced, comprehensive theoretical and practical skills which are defined as clinical dentistry, orthodontics, oral and maxillofacial surgery and health care. A national examination is arranged and must be passed by each trainee.

### Doctor of Dental Science (Equivalent to Ph.D. degree in Anglo-American countries)

Dental graduates may continue their studies to Doctor of Dental Science. This includes preparing a dissertation and completing other doctorate studies. In order to obtain the degree, a doctoral candidate must participate in theoretical research training, the extent of which is 20 ECTS credits. The training includes prescribed courses in general postgraduate training (5 credits) and special training (15 credits) according to the topic. The candidate must also conduct research, write and publish a doctoral dissertation and defend it in a public debate. Generally the minimum time needed to obtain a doctorate corresponds to 3 to 4 years of full-time work.

## 2.6. Course structure diagram (with ECTS credits)

### Structure of the Degree Programme

The degree programme is divided into six sections:

General studies (G) 12 ECTS

Language studies (L) 6 ECTS

Basic- (B), Subject- (S) and Advanced studies (A) 242 ECTS

Practical training (T) 40 + 30 ECTS

	Year 3 (1st Clinical year)	Year 4 (2nd Clinical year)	Year 5 (3rd Clinical year)	Year 6 (4rd Clinical year)
General studies (G)	0	0	0	0
Language studies (L)	1,5	3	0	0
Basic studies (B)	0	0	0	0
Subject- (S) and Advanced (A) studies	49,6	34,6	52,4	0
Practical training (T)	9	21	10	30
<b>ECTS credits</b>	60,1	58,6	62,4	30

The preclinical phase lasts for two years and mostly consists of basic and biomedical studies and subject studies. The completion of clinical phase takes three years.

## 2.7. Final examination

To obtain the degree final examination has to be completed in following courses:

- 090302A Oral Pathology
- 090501A Pedodontics, Cariology and Endodontics
- 090502A Oral Surgery
- 090503A Prosthetic Dentistry
- 090504A Stomatognathic Physiology
- 090505A Parodontology and Geriatric Dentistry
- 090506A Oral Radiology
- 090510A Community Dentistry
- 090601A Oral Development and Orthodontics

In advanced studies the student concentrates on some specific topic, which has scientific relevance in the work of dentist. Advanced studies include thesis work (20 ECTS credits).

## 2.8. Examination and Assessment Regulations

Assessment is based on examinations, exercises, essays, field work, clinical work, reports or any other method determined pedagogically appropriate for the particular course. All the exams can be retaken. Additional information is given from the organizing department. Clinical work is assessed biannually.

Grades used for assessment of the courses are: 5 (excellent; ECTS A), 4 (very good; ECTS B), 3 (good; ECTS C), 2 (satisfactory; ECTS D), 1 (sufficient; ECTS E); fail.

# Tutkintorakenteisiin kuulumattomat opintokokonaisuudet ja -jaksot

- 090601A-04: Adult Orthodontics, 0,4 op
- 090601A-07: Advanced Course in Orthodontics, 0,5 op
- 090603S: Advanced Practical Training DC11, 30 op
- 090505A-11: An elective study module of geriatric pharmacotherapy, 1,5 op
- 090403A: Anaesthesiology, 1 op
- 090510A-05: Basic Competence in Working on Public Oral Health Care Services, 1,1 op
- 090510A-04: Basic Competence on Ethics, Legislation and Dentist-Patients Relationship, 1,1 op
- 090601A-01: Basic Orthodontic Skills, 2 - 6,7 op
- 090505A-01: Basics in Periodontology and Periodontal Treatment, 1,5 - 5,2 op
- 090501A-01: Basics in operative dentistry, 1,8 - 5,1 op
- 090501A-06: Cariology and general health, 0,3 - 1,6 op
- 090501A-08: Cariology course, 0,7 op
- 090507A: Clinical Pharmacology, 1,5 op
- 090603A: Clinical Training, 34 - 40 op

*Compulsory*

090603A-11: Documentation in Clinical Training, 2,5 - 4,5 op  
090603A-10: Clinical Training, DC 10, 4 - 6 op  
090603A-05: Clinical Training, DC 5, 1 op  
090603A-06: Clinical Training, DC 6, 6 - 8 op  
090603A-07: Clinical Training, DC 7, 7 - 9 op  
090603A-08: Clinical Training, DC 8, 6 - 14 op  
090603A-09: Clinical Training, DC 9, 6 - 9 op  
090510A: Community Dentistry, 6 - 7 op  
090503A-02: Complete Dentures, 3,4 - 3,9 op  
090510A-08: Controlling Oral Diseases among Child Populations; Evidence-based Dentistry, 0,8 - 1 op  
090510A-07: Current Topics in Community Dentistry, 2,3 - 3 op  
090503A-04: Dental Materials, 1 - 1,5 op  
090506A: Dental Radiology, 7 - 7,3 op  
090502A-03: Dental and Maxillofacial Injuries - diagnostics and treatment, 1,4 - 3,4 op  
090503A-12: Dental materials, elective course, 0,8 op  
090502A-02: Dentoalveolar Surgery, 2,4 - 3,9 op  
090503A-07: Denture repair, 0,5 - 0,9 op  
090301A: Dermatology and Venereology, 0,4 - 0,6 op  
090302A-02: Diseases of Oral Mucosa, 2,7 - 3,1 op  
090605A: Electives, 4,5 - 9,3 op  
090505A-14: Endo-perio problems, 0,2 op  
090501A-03: Endodontics I, 1,6 op  
090501A-05: Endodontics II, 2,1 op  
090502A-09: Facial Pain Conditions, 1,1 op  
090510A-00: Final Exam, Community Dentistry, 0 op  
090506A-00: Final exam, Dental radiology, 0 op  
090502A-11: Final exam, Oral and maxillofacial surgery, 0 - 7,9 op  
090601A-00: Final exam, Oral development and orthodontics, 0 op  
090505A-15: Final exam, Periodontology and geriatric dentistry, 0 op  
090501A-00: Final exam, Preventive dentistry and cariology, 0 op  
090503A-00: Final exam, Prosthetic dentistry and stomatognathic physiology, 0 op  
090503A-01: Fixed Prosthodontics, 4,5 - 4,7 op  
090606A: Forensic Dentistry, 0,3 op  
090505A-05: Geriatric Dentistry, 1,3 op  
040014Y: Growing Identity as a Dentist, 2 - 11,5 op  
040014Y-01: Growing identity as a dentist Part 1: Introduction to the studies in Dentistry, 0,5 - 5 op  
040014Y-02: Growing identity as a dentist Part 2: Teacher tutorials, 0,5 - 4,5 op  
090601A-02: Growth and Development of Craniofacial Structures and Occlusion and Oral-facial genetics, 0,6 - 3 op  
090503A-06: Immediate dentures, 0,3 op  
090502A-08: Implant Dentistry, 0,4 - 0,6 op  
090506A-04: Injuries of the Teeth, Jaws and Face, 0,7 op  
090503A-08: Inlays-onlays, 0,5 op  
090509A: Internal Medicine, 3,8 - 5,5 op  
090509A-01: Internal Medicine I, 3 - 3,5 op  
090509A-02: Internal Medicine II, 0,8 op  
090303A: Internal Medicine for Dental Students, 0,8 op  
090602Y: Introduction to Clinical Work, 1,5 op  
090601A-08: Introduction to Development of Occlusion and Orthodontics, 0,5 op  
040300A: Maturity exam (native language), 0 op  
040011Y-01: Medical informatics, module 1, information and Communication Technology, 0,5 op  
040011Y-02: Medical informatics, module 2, literature retrieval, 1 op  
092201A: Microbiology/Infections, 2 - 2,1 op  
090205A: Neurology, 0,4 - 0,5 op  
090601A-09: ORTHO-Seminars 1-5, 1,4 op  
090603A-02: OSCE, 0 op  
090505A-08: Occlusal Rehabilitation in Periodontal Therapy, 1 op  
090502A-04: Odontogenic Infections, 0,6 - 1,3 op  
090501A-02: Operative Dentistry, 5,1 op  
090601A: Oral Development and Orthodontics, 10 - 12 op  
090302A: Oral Pathology, 6,6 - 9,8 op  
090302A-04: Oral Pathology, microscopy course, 0,6 op  
090502A-05: Oral Surgery and General Health, 0,5 - 3,8 op  
090502A-06: Oral and Maxillofacial Rehabilitation I, 0,3 - 0,9 op  
090502A-07: Oral and Maxillofacial Rehabilitation II, 0,2 - 0,3 op

090502A: Oral and Maxillofacial Surgery, 12,5 - 23 op  
 090302A-01: Oral pathology, 5,2 - 6 op  
 090510A-11: Organization and Providers of Oral Health Care Services, 0,4 op  
 090605A-01: Other elective course, 0 - 1,5 op  
 090508A: Otorhinolaryngology, 0,5 op  
 090202A: Paediatrics, 0,5 - 1,8 op  
 090603Y: Patient seminar, 0 op  
*Compulsory*  
 090603Y-01: Patient seminars, 0 op  
 090603Y-02: Patient seminars; preparation and presentation, 0 - 2 op  
 090502A-12: Pediatric oral and maxillofacial surgery, 0,4 - 0,5 op  
 090501A-07: Pedodontics, 1,2 - 2,5 op  
 090505A-06: Periodontal Diseases and General Health, 2,1 - 3,9 op  
 090505A-03: Periodontal Surgery, 2,2 - 2,7 op  
 090505A-13: Periodontal diseases in children, 0,3 - 0,5 op  
 090505A: Periodontology and Geriatric Dentistry, 12 - 17,4 op  
 090503A-001: Preliminary exam, Fixed prosthodontics, 0 op  
 090502A-00: Preliminary examination, Oral and Maxillofacial Surgery, 0 op  
 090501A-001: Preliminary examination, cariology, 0 op  
 090505A-00: Preliminary examination, periodontology, 0 op  
 080206A: Prescriptions, 0,5 op  
 090501A: Preventive Dentistry and Cariology, 14,9 - 17,9 op  
 090506A-01: Principles of Dental Radiology, 1,9 - 3,8 op  
 090502A-01: Principles of Oral and Maxillofacial Surgery, 3,2 - 4,7 op  
 090203A: Propedeutic Course on Surgery, 1,5 op  
 090503A: Prosthetic Dentistry, 12,3 - 16 op  
 090503A-10: Prosthetic Management for Advanced Cases, 0,8 - 1,1 op  
 090510A-09: Providing Oral Health Care Services in Private Sector, 0,8 op  
 090404A: Psychiatry, 0,4 - 0,5 op  
 090506A-05: Radiation Safety, 1,1 op  
 090506A-07: Radiation safety, elective course, 0,6 op  
 090505A-09: Regenerative and Esthetic Periodontal Surgery, 1 op  
 090510A-06: Rehabilitation of Occlusion among Groups of Population, 0,4 op  
 090503A-03: Removable Partial Dentures, 2 - 2,5 op  
 090503A-003: Removable partial dentures, preliminary exam, 0 op  
 090602A: Research methods, 1 op  
 090605A-02: Research seminars, participation, 0 - 3 op  
 090503A-05: Resin Bonded Bridges (Maryland Bridges), 0,2 - 0,3 op  
 090506A-02: Roentgenographic Picture of Osteomyelitis. Roentgenographic Features of the Benign and Malignant Tumors, 0,3 op  
 090506A-03: Roentgenographic Studies for Surgical Purposes, 1,4 op  
 090505A-04: Seminars of Periodontology, 1,1 op  
 090505A-02: Special Topics in Nonsurgical Periodontal Therapy, 1,1 - 1,5 op  
 090504A: Stomatognathic Physiology, 3 - 7,5 op  
 090504A-01: Stomatognathic Physiology I (orthofunction), 2,8 op  
 090504A-02: Stomatognathic Physiology II (pathofunction), 3,1 - 4,2 op  
 090504A-03: Stomatognathic Physiology III, 0,5 op  
 090602S-01: Study plan, 4 op  
 090502A-10: Syndromes in the Head and Maxillofacial Region, 0,7 op  
 090602S: Thesis, 20 op  
 090602S-02: Thesis, 16 - 20 op  
 090201A: Tooth Morphology, 1,6 - 2 op

## Opintojaksojen kuvaukset

## Tutkintorakenteisiin kuulumattomien opintokokonaisuuksien ja -jaksojen kuvaukset

## 090601A-04: Adult Orthodontics, 0,4 op

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Heikkinen, Tuomo Pekka Tapani

**Opintokohteen kielet:** Finnish

**Language of instruction:**

**Finnish**

**Timing:**

3rd year, Spring term

**Learning outcomes:**

To be able to make diagnosis of malocclusions in adult patients, to send the case to the orthodontist, to be familiar with the risks of treatment and nontreatment.

**Contents:**

How to treat adult orthodontic patients. Indications and contraindications

**Learning activities and teaching methods:**

lectures, individual studies

**Recommended optional programme components:**

**Orthodontic studies DC1 - DC5**

**Recommended or required reading:**

L. Mitchell: An Introduction to Orthodontics, 2nd Edition, Oxford

**Assessment methods and criteria:**

active participation

**Person responsible:**

Senior Lecturer Tuomo Heikkinen (tuomo.heikkinen(at)oulu.fi)

## 090601A-07: Advanced Course in Orthodontics, 0,5 op

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

**Language of instruction:**

**Finnish**

**Timing:**

5th year, Autumn/Spring term

**Learning outcomes:**

After these studies student can assess the developing occlusion and determine the treatment need. He has knowledge and skills to assess the timing of the treatment and treatment options and he can consider between orthodontic devices in different stages of occlusal development with the help of patient documentation and published research. Student is able to co-operate as a member in an orthodontic team with a specialist in orthodontics / a dentist acquainted in orthodontics.

**Contents:**

treated patient cases to highlight orthodontic treatment practices, article seminar, typodont practices to strengthen orthodontic mechanics (e.g. early treatment of cross-bites, anchorage and fixed appliances), cephalometric analysis

**Learning activities and teaching methods:**

seminars/team work/typodont exercises

**Recommended optional programme components:**

**Orthodontic studies DC1-DC8, Orthodontic patient follow-up and treatment**

**Recommended or required reading:**

Recommended reading: Richardson A: Interceptive Orthodontics, 4th edition, Suffolk, UK and articles on yearly topics (e.g. crowding of the dentition)

**Assessment methods and criteria:**

active participation in team work

**Person responsible:**

Senior Lecturer Raija Lähdesmäki (raija.lahdesmaki(at)oulu.fi)

**090603S: Advanced Practical Training DC11, 30 op**

**Voimassaolo:** 01.08.2011 -

**Opiskelumuoto:** Advanced Studies

**Laji:** Practical training

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Raija Lähdesmäki

**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

**090505A-11: An elective study module of geriatric pharmacotherapy, 1,5 op**

**Voimassaolo:** 01.01.2006 -

**Opiskelumuoto:** Advanced Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Syrjälä, Anna-Maija Hannele

**Opintokohteen kielet:** Finnish

**Language of instruction:**

Finnish

**Timing:**

5th year, Autumn/Spring term

**Grading:**

Pass/fail

**Person responsible:**

Senior Lecturer Anna-Maija Syrjälä (anna-maija.syrjala(at)oulu.fi)

**090403A: Anaesthesiology, 1 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

**090510A-05: Basic Competence in Working on Public Oral Health Care Services, 1,1 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

**Language of instruction:**

**Finnish**

**Timing:**

4th year, Spring term, Advanced studies

**Learning outcomes:**

Student understands the role of the oral diseases and oral health care system in welfare society. Student applies dental ergonomics in patient work. Student knows how to obtain and critically evaluate scientific knowledge and up-date his/her knowledge.

**Contents:**

See objective of the course

**Learning activities and teaching methods:**

lectures, group works

**Recommended or required reading:**

recent scientific and other relevant articles provided in the beginning of the course

**Assessment methods and criteria:**

learning assignment

**Grading:**

Pass/fail

**Person responsible:**

Professor Satu Lahti (at) oulu.fi

**Other information:**

Basic Practical Skills Strand

## **090510A-04: Basic Competence on Ethics, Legislation and Dentist-Patients Relationship, 1,1 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

**Language of instruction:**

**Finnish**

**Timing:**

3rd year, Autumn term, Subject studies

**Learning outcomes:**

Student has basic competence in dental ergonomics, patient documentation and in developing a good dentist-patient relationship. Student is acquainted with basic concepts on ethics and most important legislation in oral health care.

**Contents:**

See objective of the course

**Learning activities and teaching methods:**

lectures, practical exercises, group work, individual studies

**Recommended or required reading:**

recent scientific and other relevant articles provided in the beginning of the course

**Assessment methods and criteria:**

learning assignment

**Grading:**

Pass/fail

**Person responsible:**

Professor Satu Lahti (at) oulu.fi

## 090601A-01: Basic Orthodontic Skills, 2 - 6,7 op

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Pirttiniemi, Pertti Mikael

**Opintokohteen kielet:** Finnish

**Language of instruction:**

**Finnish**

**Timing:**

3rd year, Autumn - Spring term

**Learning outcomes:**

The student is able to estimate the incidence and implication of abnormal occlusion and consider the function in orthodontic treatment need evaluation. He is able to make a diagnosis on most common occlusal abnormalities and is able to define the degree of difficulty and the demand of treatment. The student knows the protocol and methods of orthodontic examination and uses radiology in diagnosis. He understands the options for treatment methods and the importance of timing in treatment. The student is able to make most common orthodontic appliances and understands the overall care and advice for the patient. He knows the orthodontic first aid.

**Contents:**

The basic concepts in orthodontics and documentation in the examination of occlusion; understand the possibilities of treatment methods in different stages of the developing dentition; treatment methods, appliances and mechanics in preference to growth guidance; basic knowledge to make the diagnosis, treatment planning and timing in orthodontic treatment. Patient information to clarify home care in Orthodontics. First aid in Orthodontics. Orthodontic equipment and materials will be introduced, Orthodontic examination including anamnesis, occlusal status, biologic developmental stage of the dentition, occlusal function, cephalometric analysis, photography of the face and dentition and making dental casts including alginate copy and wax index of the dentition. How to make Orthodontic appliances will be introduced e.g. orthodontic ring, brackets, arch wire and how to fix them., remove fixed appliances and how to make retention appliances and fix them., the mechanics of expanding appliance, how to make extraoral traction and early cross-bite treatment. The student learns to bend an ideal orthodontic arch wire, retention wire and the wire for extraoral traction. Practical exercises in pairs and teaching videos will instruct the basics of patient care in Orthodontics.

**Learning activities and teaching methods:**

lectures, practical exercises individually and in pairs, demonstrations, individual studies

**Recommended optional programme components:**

**Basic studies DC1 - DC4**

**Recommended or required reading:**

Orthodontic examination carbon copy, basic mechanics in Orthodontics I and II, lecture hand-outs (in Finnish)

L. Mitchell: An Introduction to Orthodontics, 3rd Edition, Oxford.

Extra reading: Richardson A: Interceptive Orthodontics, 4th edition, Suffolk, UK

**Assessment methods and criteria:**

Active participation in lectures, approved multiple choice examination before practical exercises, approved practical exercises and approved written essay examination.

**Other information:**

Basic Skills in Orthodontics-course is term of admission to start work in Orthodontics.

## 090505A-01: Basics in Periodontology and Periodontal Treatment, 1,5 - 5,2 op

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

**Voidaan suorittaa useasti:** Kyllä

**Language of instruction:**

**Finnish**

**Timing:**

3rd year, Autumn term

**Learning outcomes:**

To reach basic knowledge and skills to give periodontal therapy

**Contents:**

Anatomy and physiology of periodontium, aetiology and basic pathology of gingivitis and chronic periodontitis and their diagnostics and nonsurgical therapy

**Learning activities and teaching methods:**

lectures, practical exercises, individual studies

**Recommended optional programme components:**

To pass the entrance examination

**Recommended or required reading:**

Carranza's Clinical Periodontology, pages:

**Assessment methods and criteria:**

written entrance examination and written course examination

**Grading:**

scale 0-5

**Person responsible:**

Professor Matti Knuutila (matti.knuutila(at)oulu.fi) and Senior Lecturer Hilikka Pernu (hilikka.pernu(at)oulu.fi)

## 090501A-01: Basics in operative dentistry, 1,8 - 5,1 op

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Leo Tjäderhane

**Opintokohteen kielet:** Finnish

**Voidaan suorittaa useasti:** Kyllä

**Language of instruction:**

Finnish

**Timing:**

2nd year Spring term, 3rd year Autumn term, Subject studies

**Learning outcomes:**

Upon completion the student should be able to understand the basics of the factors affecting the pathobiology, initiation and progression of dental caries, and the role of these factors in caries prevention.

**Contents:**

Dental tissues: enamel, dentin, pulp tissue; pathobiology and histopathology of caries; caries microbiology, saliva and caries, caries tests; diet and caries; caries indexes, epidemiology; caries preventive factors: oral hygiene, fluoride, xylitol, antiseptic substances.

**Learning activities and teaching methods:**

lectures, group assignments

**Recommended or required reading:**

Nanci A (ed.). Ten Cate's Oral Histology: Development, Structure, and Function. Edited by Antonio Nanci. Seventh edition; ss. 141-238. St. Louis, Mosby Elsevier.

Dental Caries. The Disease and its Clinical Management. Edited by Ole Fejerskov and Edwina Kidd. Second Edition. Oxford, Blackwell Munksgaard.

**Assessment methods and criteria:**

Midterm exam in the beginning of the 2nd part of the course covers the topics of the 1st part of the course and is a prerequisite to the participation to Operative Dentistry course (090501A-02).

**Grading:**

scale 0-5

**Person responsible:**

Professor Leo Tjäderhane (leo.tjaderhane(at)oulu.fi)

**Other information:**

Part of the course (1,5 credits) will be given in Preclinical strand and the rest (1,8 credits) in Basic Practical Skills

**090501A Preventive Dentistry and Cariology**

After different course parts there will be midterm exams covering the topics dealt with in the course in question. In the beginning of DC 5, there will be the exam covering the lectures given in DC 4 and related chapters in textbook: passing this exam is required for the admittance to Restorative Dentistry course 090501A-02.

Passing the midterm exams is the prerequisite for attending the clinical studies and final exam. All the topics covered in different course parts, as well as related topics in textbooks, are required in the final exam. Final grade will be based on the a) the results of the midterm and final exams; b) score achievement in continuous clinical performance evaluation (given by clinical supervisors), and ; c) performance in competence evaluation (given by clinical supervisors and assisting staff).

### **090501A-06: Cariology and general health, 0,3 - 1,6 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Leo Tjäderhane

**Opintokohteen kielet:** Finnish

**Language of instruction:**

Finnish

**Timing:**

5th year, Autumn term, Advanced studies

**Learning outcomes:**

Upon completion the student should be able to recognize and diagnose the conditions and systemic diseases (other than caries) that cause dental tissue loss.

**Contents:**

Loss of dental tissues due to attrition, abrasion and erosion. Hereditary and other developmental dental abnormalities.

**Learning activities and teaching methods:**

lectures

**Recommended or required reading:**

Lecture handouts; other material given during the lectures

The applicable parts of textbook: Koch G & Poulsen S (eds.): Pediatric dentistry - A clinical approach. 2<sup>nd</sup> edition, May 2009, Wiley-Blackwell. ISBN: 978-1-4051-6100-8

**Assessment methods and criteria:**

written exam

**Grading:**

scale 0-5

**Person responsible:**

Professor Leo Tjäderhane (leo.tjaderhane(at)oulu.fi)

**Other information:**

Dental and Oral Diseases and General Health Strand

**090501A Preventive Dentistry and Cariology**

After different course parts there will be midterm exams covering the topics dealt with in the course in question. In the beginning of DC 5, there will be the exam covering the lectures given in DC 4 and related chapters in textbook: passing this exam is required for the admittance to Restorative Dentistry course 090501A-02.

Passing the midterm exams is the prerequisite for attending the clinical studies and final exam. All the topics covered in different course parts, as well as related topics in textbooks, are required in the final exam.

Final grade will be based on the a) the results of the midterm and final exams; b) score achievement in continuous clinical performance evaluation (given by clinical supervisors), and ; c) performance in competence evaluation (given by clinical supervisors and assisting staff).

### **090501A-08: Cariology course, 0,7 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Leo Tjäderhane

**Opintokohteen kielet:** Finnish

**Language of instruction:**

Finnish

**Timing:**

5th year, Autumn/Spring term, Advanced studies

**Learning outcomes:**

Upon completion the student should understand and recognize the problem areas of caries diagnostics, operative treatment and endodontics, and to be able to evaluate their role and importance in treatment planning, success and prognosis.

**Contents:**

The course deals with the conditions and circumstances that affect preventive and operative caries treatment prognosis, in order to promote discussion dealing with e.g. treatment alternatives and material choices.

**Learning activities and teaching methods:**

lectures

**Assessment methods and criteria:**

Obligatory presence

**Grading:**

Pass/fail

**Person responsible:**

Professor Leo Tjäderhane (leo.tjaderhane(at)oulu.fi)

**Other information:**

Electives strand

**090507A: Clinical Pharmacology, 1,5 op****Opiskelumuoto:** Intermediate Studies**Laji:** Course**Vastuuyksikkö:** Institute of Dentistry**Arvostelu:** 1 - 5, pass, fail**Opettajat:** Miia Turpeinen**Opintokohteen kielet:** Finnish**ECTS Credits:**

1,5 credits

**Language of instruction:**

Finnish

**Learning outcomes:**

After passing the course the student should have ability to safe, efficient and cost effective drug therapy. The student should understand the basis for drug therapy from the point of view of dentist.

**Contents:**

Factors affecting drug selection, dosage and therapy will be discussed applying knowledge of basic pharmacology. Furthermore, the common problem cases of drug therapy will be discussed. Individualized therapy, use of major classes of drugs in dentistry and special treatment situations will also be discussed.

**Learning activities and teaching methods:**

Thematic seminars (8 times) will cover major areas of drug therapy and special situations of drug treatment. Last seminar will contain small final exam and feedback.

**Recommended or required reading:**

Materials of the thematic seminars.

**Assessment methods and criteria:**

Presence in thematic seminars and exam/feedback.

**Grading:**

Pass/fail

**Person responsible:**

Miia Turpeinen (miia.turpeinen@oulu.fi)

**090603A: Clinical Training, 34 - 40 op****Opiskelumuoto:** Intermediate Studies**Laji:** Practical training**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

*Compulsory*

**090603A-11: Documentation in Clinical Training, 2,5 - 4,5 op**

**Voimassaolo:** 01.08.2011 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Practical training

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

**090603A-10: Clinical Training, DC 10, 4 - 6 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Practical training

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

**090603A-05: Clinical Training, DC 5, 1 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Practical training

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

**090603A-06: Clinical Training, DC 6, 6 - 8 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Practical training

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

**090603A-07: Clinical Training, DC 7, 7 - 9 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Practical training

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

**090603A-08: Clinical Training, DC 8, 6 - 14 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Practical training

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

**090603A-09: Clinical Training, DC 9, 6 - 9 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Practical training

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

**090510A: Community Dentistry, 6 - 7 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

7 credits

**Language of instruction:**

**Finnish**

**Timing:**

1st year - 5th year

**Contents:**

090510A-11 Organization and Providers of Oral Health Care Services

090510A-04 Basic Competence on Ethics, Legislation and Dentist-Patients Relationship

090510A-05 Basic Competence in Working on Public Oral Health Care Services

090510A-06 Rehabilitation of Occlusion among Groups of Population

090510A-08 Controlling Oral Diseases among Child Populations; Evidence-based Dentistry

090510A-07 Current Topics in Community Dentistry

090510A-00 Final Exam, Community Dentistry

090510A-09 Providing Oral Health Care Services in Private Sector

**Person responsible:**

Professor Satu Lahti (at) oulu.fi

**090503A-02: Complete Dentures, 3,4 - 3,9 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Hujanen, Erkki Samuli

**Opintokohteen kielet:** Finnish

**Language of instruction:**

Finnish

**Timing:**

3rd year, Spring term

**Learning outcomes:**

To give theoretical basic knowledge and clinical skills which are needed for the treatment of edentulous patient by conventional methods, including laboratory training.

**Contents:**

Introduction to complete dentures, changes in masticatory system caused by tooth extractions, pre-prosthetic preparation of the mouth, impressions, relationship of edentate jaws, shape of the dentures - retentive, phonetic and hygienic aspects, occlusion in complete dentures, controls and recall procedures

**Learning activities and teaching methods:**

lectures, demonstrations, practical exercises, patient demonstrations (video), laboratory training, self-access learning

**Recommended or required reading:**

lecture handout material, RM Basker and JC Davenport: Prosthetic Treatment of the Edentulous Patient. Blackwell Munksgaard, 2002 Fourth Edition, pages 56-122, 146-202, 241-259, 269-309

**Assessment methods and criteria:**

written exam

**Grading:**

scale 0-5

**Person responsible:**

Senior Lecturer Erkki Hujanen (at) oulu.fi

## 090510A-08: Controlling Oral Diseases among Child Populations; Evidence-based Dentistry, 0,8 - 1 op

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

1 credit

**Language of instruction:**

Finnish

**Timing:**

4th year Autumn/Spring term, Subject studies

**Learning outcomes:**

Student is acquainted with prevention strategies and their effectiveness among children and adolescents at individual and population level. Student is able to work as a public health dentist. Students works ethically and socially responsibly with patients.

**Contents:**

See objective of the course

**Learning activities and teaching methods:**

lectures, group work, individual studies

**Recommended or required reading:**

provided in the beginning of the course

**Assessment methods and criteria:**

learning assignment

**Grading:**

Pass/fail

**Person responsible:**

Professor Satu Lahti (at) oulu.fi

**Other information:**

Development and Growth Strand

## 090510A-07: Current Topics in Community Dentistry, 2,3 - 3 op

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

**Language of instruction:**

**Finnish**

**Timing:**

5th year Autumn/Spring term, Advanced studies

**Learning outcomes:**

Student understands the role of health promotion as a fundamental aim of oral health care. Student knows the possibilities of working in private sector. Student can manage demanding dentist-patient relationships. Student can act as a superior and as subordinate in oral health care and can develop dental practice. Student understands current topics of health care such as health policy or health care economics.

**Contents:**

See objective of the course

**Learning activities and teaching methods:**

lectures, group works, individual studies

**Recommended or required reading:**

Järvinen P. Menestyvän työyhteisön pelisäännöt. WSOYpro, 2008, recent scientific and other relevant articles and legislation provided in the beginning of the course.

**Assessment methods and criteria:**

material based written (final) exam

**Grading:**

Pass/fail, final exam on scale 0-5

**Person responsible:**

Professor Satu Lahti (at) oulu.fi

**Other information:**

Scientific Skills Strand

## 090503A-04: Dental Materials, 1 - 1,5 op

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Ritva Näpänkangas

**Opintokohteen kielet:** Finnish

**Language of instruction:**

**Finnish**

**Timing:**

3rd year, Spring term

**Learning outcomes:**

After the course the student knows the properties and manipulation the basic materials used in prosthodontics.

**Contents:**

Gypsum products, Waxes, Polymers and polymerization, Impression materials, Dental cements, Structure and properties metals and alloys

**Learning activities and teaching methods:**

lectures, demonstrations, individual studies

**Recommended or required reading:**

O'Brien WJ: Dental Materials and Their Selection (2<sup>nd</sup> ed). Quintessence 1997. Lecture handout material.

**Grading:**

scale 0-5

**Person responsible:**

Senior Lecturer Ritva Näpänkangas (ritva.napankangas(at)oulu.fi)

**090506A: Dental Radiology, 7 - 7,3 op****Opiskelumuoto:** Intermediate Studies**Laji:** Course**Vastuuyksikkö:** Institute of Dentistry**Arvostelu:** 1 - 5, pass, fail**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

**090502A-03: Dental and Maxillofacial Injuries - diagnostics and treatment, 1,4 - 3,4 op****Opiskelumuoto:** Intermediate Studies**Laji:** Partial credit**Vastuuyksikkö:** Institute of Dentistry**Arvostelu:** 1 - 5, pass, fail**Opettajat:** Leena Ylikontiola**Opintokohteen kielet:** Finnish**Language of instruction:****Finnish****Timing:**

4th year Spring term, Subject studies

**Learning outcomes:**

- to teach the student how to treat dental trauma
- to teach the treatment principles of maxillofacial trauma
- to give the student understanding about craniofacial pain and its treatment possibilities by different specialities

**Contents:**

- dental trauma
- maxillofacial trauma
- maxillofacial pain

**Learning activities and teaching methods:**

lectures, individual studies

**Recommended or required reading:**

Contemporary Oral and Maxillofacial Surgery/Editors: James R. Hupp, Edward Ellis, Myron R. Tucker. 5th ed. Mosby 2008.

Andreasen Jens O. Essentials of traumatic injuries to the teeth: a step-by-step treatment guide. 2. ed./uusien painos.

Kurssikirjojen saatavuuden voi tarkistaa [tästä linkistä](#).**Assessment methods and criteria:**

written exam together with course 090506A-04 Injuries of the Teeth, Jaws and Face

**Grading:**

scale 0-5

**Person responsible:**

Professor Kyösti Oikarinen (kyosti.oikarinen(at)oulu.fi)

**Other information:**

Traumas and Pain Strand

**090503A-12: Dental materials, elective course, 0,8 op****Voimassaolo:** 01.08.2006 -**Opiskelumuoto:** Advanced Studies**Laji:** Partial credit**Vastuuyksikkö:** Institute of Dentistry**Arvostelu:** 1 - 5, pass, fail**Opettajat:** Raustia, Aune Maritta

**Opintokohteen kielet:** Finnish

**Language of instruction:**

Finnish

**Timing:**

5th year, Autumn/Spring term

**Learning outcomes:**

To know the advantages and disadvantages as well as biocompatibility of the newest materials used in prosthetic dentistry

**Learning activities and teaching methods:**

lectures 10 hours

**Assessment methods and criteria:**

full-time participation needed

**Grading:**

Pass/fail

**Person responsible:**

Professor Aune Raustia (aune.raustia(at)oulu.fi)

## 090502A-02: Dentoalveolar Surgery, 2,4 - 3,9 op

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Antti Raunio

**Opintokohteen kielet:** Finnish

**Language of instruction:**

Finnish

**Timing:**

4th year Autumn term, Subject studies

**Learning outcomes:**

After completion of this course the student knows the basics principles of dentoalveolar surgery and has skills to perform the most common surgical procedures in dental practise.

**Contents:**

- wound healing
- incisions and flap technique
- operative extractions
- transplantation of the teeth
- deliberation of the teeth
- biopsies
- surgery of the benign oral tumors

**Learning activities and teaching methods:**

lectures, individual studies

**Recommended or required reading:**

Contemporary Oral and Maxillofacial Surgery/Editors: James R. Hupp, Edward Ellis, Myron R. Tucker. 5th ed. Mosby 2008.

Kurssikirjojen saatavuuden voi tarkistaa [tästä linkistä](#) .

**Assessment methods and criteria:**

written exam together with courses

090505A-03 Periodontal Surgery and

090506A-03 Roentgenographic Studies for Surgical Purposes

**Grading:**

scale 0-5

**Person responsible:**

Senior Lecturer Antti Raunio (antti.raunio(at)oulu.fi)

**Other information:**

Operative Strand

**090503A-07: Denture repair, 0,5 - 0,9 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Hujanen, Erkki Samuli

**Opintokohteen kielet:** Finnish

**Language of instruction:**

**Finnish**

**Timing:**

4th year, Autumn term

**Learning outcomes:**

To give theoretical and clinical knowledge about the modalities to repair various types of removable and fixed prostheses including clinical and laboratory procedures

**Contents:**

repair of removable dentures and fixed prosthodontics, clinical procedures

**Learning activities and teaching methods:**

lectures

**Recommended or required reading:**

lecture handout material

**Assessment methods and criteria:**

full-time participation needed

**Grading:**

Pass/fail

**Person responsible:**

Senior Lecturer Erkki Hujanen (erkki.hujanen(at)oulu.fi, Senior Lecturer Ritva Näpänkangas (ritva.napankangas (at)oulu.fi, Senior Lecturer Ritva Kuoppala (ritva.kuoppala(at)oulu.fi)

**090301A: Dermatology and Venereology, 0,4 - 0,6 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

**090302A-02: Diseases of Oral Mucosa, 2,7 - 3,1 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Arja Kullaa, Salo, Tuula Anneli

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

3,1 credits

**Language of instruction:**

( Lectures in Finnish; research projects also in English)

**Timing:**

4th year, Autumn term

**Learning outcomes:**

(As general requirements for all dentist is the basic knowledge about the anatomical and histological structures of oral mucosa. The student will know variations in the normal structures of the oral mucosa and is able to diagnose and treat the oral mucosal diseases.)

**Contents:**

(Anamnestic and clinical examination of patients with oral mucosal diseases including practise of biopsies. Aetiopathogenesis and relationship of oral mucosal diseases with general diseases (including e.g. dermatological and sexually transmitted diseases and HIV-infection). Treatment and follow-up of oral mucosal disease patient in health care. The clinical and pathological manifestations of the following conditions: oral mucosal vesiculo-bullous, ulcerative, white, red-blue, pigmented, verrucous and connective tissue lesions premalignant lesions and conditions and oral cancer. Special features related to burning mouth and Sjögren's syndromes.

**Learning activities and teaching methods:**

lectures (22 hours)

**Recommended optional programme components:**

**(All preclinical dental studies are prerequisites for this course)**

**Recommended or required reading:**

(Study material; selected portions:

Regezi JA, Sciubba J, Jordan RCK. Textbook: *Oral & Maxillofacial Pathology: Clinical-Pathologic Correlations. 5th edition. WB Saunders Co.*, Philadelphia, PA, 2008

Handout in Finnish)

**Assessment methods and criteria:**

written exam

**Grading:**

scale 0-5

**Person responsible:**

Professor Tuula Salo (at) oulu.fi

## 090605A: Electives, 4,5 - 9,3 op

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

**Voidaan suorittaa useasti:** Kyllä

Ei opintojaksokuvauksia.

## 090505A-14: Endo-perio problems, 0,2 op

**Voimassaolo:** 01.08.2007 -

**Opiskelumuoto:** Advanced Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

**Language of instruction:**

Finnish

**Timing:**

4th year, Spring term

**Recommended or required reading:**

Carranza's Clinical Periodontology, pages:

**Person responsible:**

Assistant Professor Tellervo Tervonen (tellervo.tervonen(at)oulu.fi)

## 090501A-03: Endodontics I, 1,6 op

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Seppä Liisa

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

1,6 credits

**Language of instruction:**

Finnish

**Timing:**

3rd year Spring term, Subject studies

**Learning outcomes:**

The student knows the basics of pulp diseases and is able to carry out root canal treatment.

**Contents:**

Histology and morphology of pulp and root canals; Diagnostics of pulp diseases; Principles of endodontic treatment; Root canal preparation and obturation

**Learning activities and teaching methods:**

lectures, practical exercises, individual studies

**Recommended or required reading:**

Haapasalo, Kotiranta, Siren, Haapasalo, Endal: Käytännön juurihoito. Recommended reading: Manogue M, Patel S, Walker R: The Principles of Endodontics

**Assessment methods and criteria:**

written exam

**Grading:**

Pass/fail

**Person responsible:**

Senior Research Fellow Liisa Seppä liisa.seppa (at) oulu.fi

**Other information:**

Basic Practical Skills Strand

**090501A Preventive Dentistry and Cariology**

After different course parts there will be midterm exams covering the topics dealt with in the course in question. In the beginning of DC 5, there will be the exam covering the lectures given in DC 4 and related chapters in textbook: passing this exam is required for the admittance to Restorative Dentistry course 090501A-02.

Passing the midterm exams is the prerequisite for attending the clinical studies and final exam. All the topics covered in different course parts, as well as related topics in textbooks, are required in the final exam.

Final grade will be based on the a) the results of the midterm and final exams; b) score achievement in continuous clinical performance evaluation (given by clinical supervisors), and ; c) performance in competence evaluation (given by clinical supervisors and assisting staff).

**090501A-05: Endodontics II, 2,1 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Leo Tjäderhane

**Opintokohteen kielet:** Finnish

**Language of instruction:**

Finnish

**Timing:**

4th year Spring term, Advanced studies

**Learning outcomes:**

To understand the complex endodontic diagnostics and treatment; to master the etiology, prevention, diagnostics and treatment of the most common endodontic complications; to master the use of rotary NiTi endodontic instruments.

**Contents:**

Endodontic differential diagnostics; the reasons, prevention and treatment of perforations; theory and practice of rotary endodontic treatment.

**Learning activities and teaching methods:**

lectures, individual studies

**Assessment methods and criteria:**

written exam

**Grading:**

scale 0-5

**Person responsible:**

Senior Research Fellow Liisa Seppä (liisa.seppa(at)oulu.fi)

**Other information:**

Basic Practical Skills Strand

**090501A Preventive Dentistry and Cariology**

After different course parts there will be midterm exams covering the topics dealt with in the course in question. In the beginning of DC 5, there will be the exam covering the lectures given in DC 4 and related chapters in textbook: passing this exam is required for the admittance to Restorative Dentistry course 090501A-02.

Passing the midterm exams is the prerequisite for attending the clinical studies and final exam. All the topics covered in different course parts, as well as related topics in textbooks, are required in the final exam.

Final grade will be based on the a) the results of the midterm and final exams; b) score achievement in continuous clinical performance evaluation (given by clinical supervisors), and ; c) performance in competence evaluation (given by clinical supervisors and assisting staff).

**090502A-09: Facial Pain Conditions, 1,1 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

**Language of instruction:**

Finnish

**Timing:**

4th year Autumn term/5th year Autumn term

**Learning outcomes:**

to teach examination, treatment and referral practice of orofacial pain patient

**Contents:**

Acute pain conditions: dental pain, oral mucosal pain, pain connected with orthodontic treatment, parodontal pain, postoperative pain. Chronic pain conditions: pain related to temporomandibular disorders, headache and neurological pain, otolaryngological pain, atypical/chronic facial pains, psychiatric aspects in pain, encountering the pain patient, pain and fear.

**Learning activities and teaching methods:**

lectures

**Grading:**

Pass/fail

**Person responsible:**

Senior Lecturer Kirsi Sipilä (kirsi.sipila(at)oulu.fi), Senior Lecturer Leena Ylikontiola (leena.ylikontiola(at)oulu.fi)

**Other information:**

Traumas and Pain Strand

**090510A-00: Final Exam, Community Dentistry, 0 op**

**Opiskelumuoto:** Advanced Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

**Language of instruction:****Finnish****Timing:**

5th year Spring term

**Learning outcomes:**

See course 090510A-07 Current Topics in Community Dentistry

**Contents:**

See course 090510A-07 Current Topics in Community Dentistry

**Learning activities and teaching methods:**

Final Exam

**Assessment methods and criteria:**

Final Exam

**Grading:**

Scale 0-5

**Person responsible:**

Professor Satu Lahti (at) oulu.fi

**Other information:**

See course 090510A-07 Current Topics in Community Dentistry

**090506A-00: Final exam, Dental radiology, 0 op****Voimassaolo:** 01.12.2004 -**Opiskelumuoto:** Intermediate Studies**Laji:** Partial credit**Vastuuyksikkö:** Institute of Dentistry**Arvostelu:** 1 - 5, pass, fail**Opintokohteen kielet:** Finnish**Voidaan suorittaa useasti:** Kyllä

Ei opintojaksokuvauksia.

**090502A-11: Final exam, Oral and maxillofacial surgery, 0 - 7,9 op****Voimassaolo:** 19.11.2004 -**Opiskelumuoto:** Intermediate Studies**Laji:** Partial credit**Vastuuyksikkö:** Institute of Dentistry**Arvostelu:** 1 - 5, pass, fail**Opettajat:** Oikarinen, Kyösti Sakari**Opintokohteen kielet:** Finnish**Voidaan suorittaa useasti:** Kyllä**Language of instruction:****Finnish****Timing:**

5th yea Autumn/Spring term

**Learning activities and teaching methods:**

Final Exam

**Grading:**

scale 0-5

**Person responsible:**

Professor Kyösti Oikarinen (kyosti.oikarinen(at)oulu.fi)

**090601A-00: Final exam, Oral development and orthodontics, 0 op****Voimassaolo:** 01.08.2006 -

**Opiskelumuoto:** Advanced Studies  
**Laji:** Partial credit  
**Vastuuyksikkö:** Institute of Dentistry  
**Arvostelu:** 1 - 5, pass, fail  
**Opettajat:** Pirttiniemi, Pertti Mikael  
**Opintokohteen kielet:** Finnish  
**Voidaan suorittaa useasti:** Kyllä

**Language of instruction:**  
**Finnish**

### **090505A-15: Final exam, Periodontology and geriatric dentistry, 0 op**

**Voimassaolo:** 01.08.2007 -  
**Opiskelumuoto:** Advanced Studies  
**Laji:** Partial credit  
**Vastuuyksikkö:** Institute of Dentistry  
**Arvostelu:** 1 - 5, pass, fail  
**Opettajat:** Tellervo Tervonen  
**Opintokohteen kielet:** Finnish  
**Voidaan suorittaa useasti:** Kyllä

Ei opintojaksokuvauksia.

### **090501A-00: Final exam, Preventive dentistry and cariology, 0 op**

**Opiskelumuoto:** Intermediate Studies  
**Laji:** Partial credit  
**Vastuuyksikkö:** Institute of Dentistry  
**Arvostelu:** 1 - 5, pass, fail  
**Opettajat:** Leo Tjäderhane  
**Opintokohteen kielet:** Finnish  
**Voidaan suorittaa useasti:** Kyllä

**Learning activities and teaching methods:**

Final exam

**Assessment methods and criteria:**

Final exam

**Grading:**

scale 0-5

**Person responsible:**

Professor Leo Tjäderhane (leo.tjaderhane(at)oulu.fi)

### **090503A-00: Final exam, Prosthetic dentistry and stomatognathic physiology, 0 op**

**Voimassaolo:** 01.01.2008 -  
**Opiskelumuoto:** Intermediate Studies  
**Laji:** Partial credit  
**Vastuuyksikkö:** Institute of Dentistry  
**Arvostelu:** 1 - 5, pass, fail  
**Opettajat:** Raustia, Aune Maritta  
**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

### **090503A-01: Fixed Prosthodontics, 4,5 - 4,7 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Ritva Näpänkangas

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

4,4 credits

**Language of instruction:**

**Finnish**

**Timing:**

3rd year (Spring), Subject studies

**Learning outcomes:**

After the course student has skills to examine the patient for prosthetic treatment with crowns and fixed partial dentures and knows the indications and contraindications for fixed prostheses. Student can make the treatment plan concerning fixed prostheses and perform the clinical phases of the treatment. Student knows the importance of the maintenance phase in success of the treatment.

**Contents:**

Destruction of occlusion, Indications/contraindications, Adv./disadv., Treatment planning, Principles of grinding the tooth, Biological aspects, Metal crowns, porcelain fused to metal, Post and core, All ceramic crowns/bridges, Impressions, Temporary crowns/bridges, Cementing, Problems, Complications/prognosis

**Learning activities and teaching methods:**

lectures, demonstrations, phantom laboratory exercises, individual studies

**Recommended or required reading:**

lecture handout material, Schillingburg HT, Hobo S, Whittsett LD, Jakobi R, Brachett SE: Fundamentals of fixed prosthodontics. Quintessence Publishing Co, 3<sup>rd</sup> ed. Karlsson S, Nilner K, Dahl BL: A textbook of fixed prosthodontics. Publishing House Gothia

**Assessment methods and criteria:**

phantom laboratory exercises, written exam

**Grading:**

scale 0-5

**Person responsible:**

Ritva Näpänkangas

### **090606A: Forensic Dentistry, 0,3 op**

**Voimassaolo:** 01.08.2007 -

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Arja Kullaa

**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

### **090505A-05: Geriatric Dentistry, 1,3 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Syrjälä, Anna-Maija Hannele

**Opintokohteen kielet:** Finnish

**Language of instruction:**

Finnish

**Timing:**

5th year, Autumn term

**Learning outcomes:**

To manage special traits related to aging and dental diseases among the elderly people

**Contents:**

Lectures (Department of Periodontology and Geriatric Dentistry):

- Theories of aging
- Aging of the cells, tissues and organs
- Psychological aging, demography
- Use of drugs in old age
- Diseases in old age
- Changes in healing and immunological response
- Oral changes in old age
- Epidemiology of oral diseases in old age
- Problems in oral health in old age
- Prevention of oral diseases
- Dental care of disabled people
- Specific traits in dental care in aged people
- Geriatric pharmacology in dentistry
- Some aspects of nutrition in old age
- Two theme afternoons of lectures:
  - Restorative treatment and prevention of dental caries among elderly patients (Department of Pedodontics, Cariology and Endodontics)
  - Prosthodontic treatment of elderly patients (Department of Prosthetic Dentistry and Stomatognathic Physiology)
  - Periodontal treatment of elderly patients (Department of Periodontology and Geriatric Dentistry)
  - Radiographic features among elderly patients (Department of Diagnostics and Oral Medicine)
  - Quality of life related to oral health among elderly people (Department of Community Dentistry)

Visiting a sheltered home

Visiting a nursing home, a long-term care facility

Group work in Optima

A log book is kept about the lectures.

**Learning activities and teaching methods:**

see "Contents"

**Recommended optional programme components:**

previous courses in Periodontology

**Recommended or required reading:**

Lecture material

**Assessment methods and criteria:**

see "Contents"

**Grading:**

Pass/fail

**Person responsible:**

Senior Lecturer Anna-Maija Syrjälä (anna-maija.syrjala(at)oulu.fi)

**040014Y: Growing Identity as a Dentist, 2 - 11,5 op**

**Opiskelumuoto:** General Studies

**Laji:** Course

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Raija Lähdesmäki

**Opintokohteen kielet:** Finnish

**Voidaan suorittaa useasti:** Kyllä

**Language of instruction:**  
Finnish

**040014Y-01: Growing identity as a dentist Part 1: Introduction to the studies in Dentistry, 0,5 - 5 op**

**Voimassaolo:** 01.08.2009 -

**Opiskelumuoto:** General Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

**Voidaan suorittaa useasti:** Kyllä

Ei opintojaksokuvauksia.

**040014Y-02: Growing identity as a dentist Part 2: Teacher tutorials, 0,5 - 4,5 op**

**Voimassaolo:** 01.08.2009 -

**Opiskelumuoto:** Advanced Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

**Voidaan suorittaa useasti:** Kyllä

Ei opintojaksokuvauksia.

**090601A-02: Growth and Development of Craniofacial Structures and Occlusion and Oral-facial genetics, 0,6 - 3 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

**Voidaan suorittaa useasti:** Kyllä

**Language of instruction:**  
Finnish

**Learning outcomes:**

the student understands normal growth and development of the head and face and increases his knowledge on abnormal growth. The student understands the development of the tooth and tooth eruption and the development of occlusion. He also knows the possibilities and restrictions to manipulate the developing occlusion. Partly these studies are offered in preclinical courses and that explanation is elsewhere.

**Contents:**

Prenatal and postnatal growth and development of structures of cranium, nasopharynx and the jaws. Normal development of a tooth and dentitions (See 040101A Anatomy C1).

The development of abnormal occlusion and main treatment methods in the aspects of growth.  
Retention of orthodontic treatment and continuous growth. Assessment of orthodontic treatment need.  
Patogenesis of common developmental disturbances and syndromes and orofacial implications and orthodontic treatment of cleft lip and palate patients.  
Genetics of oral-facial structures: tooth size and morphology, pulp morphology, occlusion, oral features and attributes in individuals with abnormal chromosome constitution (autosomes and sex chromosomes).

**Learning activities and teaching methods:**

lectures, individual studies, team work

**Recommended optional programme components:**

**090601A-01 Basic skills in Orthodontics**

**Recommended or required reading:**

Recommended reading: L. Mitchell: An Introduction to Orthodontics, 3rd Edition, Oxford

A. Nanci: Ten Cate's Oral Histology. Development, Structure, and Function. 2008 Chapters 3, 5, 6, 10 and 13

Extra reading: H. Sariola: Solusta yksilöksi. Kehitysbiologia. Duodecim, Jyväskylä 2003, Aula, Kääriäinen, Leisti: Perinnöllisyys-lääketiede. 2. painos. Duodecim, Jyväskylä 2002.

**Assessment methods and criteria:**

written exam (0-5), active team work

### **090503A-06: Immediate dentures, 0,3 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

**Language of instruction:**

**Finnish**

**Timing:**

4th year, Autumn term

**Learning outcomes:**

To give theoretical and clinical knowledge to use immediate denture treatment modality in order to replace one or more teeth with immediate appliance and to know various clinical steps of such a treatment.

**Contents:**

immediate prosthetic rehabilitation at the time of tooth/teeth extraction

**Learning activities and teaching methods:**

lectures

**Recommended or required reading:**

lecture handout material

**Assessment methods and criteria:**

full-time participation needed

**Grading:**

Pass/fail

**Person responsible:**

Senior Lecturer Erkki Hujanen (at) oulu.fi

### **090502A-08: Implant Dentistry, 0,4 - 0,6 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

**Language of instruction:**

**Finnish**

**Timing:**

4th/5th year Autumn term

**Learning outcomes:**

To give the student the basics of implant treatment

**Contents:**

surgical basics of implant treatment, bone transplants, radiology in implantology, prosthodontics in implantology, periodontological considerations in implantology

**Learning activities and teaching methods:**

lectures

**Grading:**

Pass/fail

**Person responsible:**

Department of Prosthetic Dentistry and Stomatognathic Physiology (Senior lecturer)

Department of Oral and Maxillofacial Surgery (Professor/Senior lecturer)

**Other information:**

Oral Rehabilitation Strand

**090506A-04: Injuries of the Teeth, Jaws and Face, 0,7 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Rosberg, Jukka Alvi Einari

**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

**090503A-08: Inlays-onlays, 0,5 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Ritva Näpänkangas

**Opintokohteen kielet:** Finnish

**Language of instruction:**

Finnish

**Timing:**

4th year Spring term/5th year Spring term

**Learning outcomes:**

to teach indications, principles for preparations and clinical procedures in fabrication of inlays and onlays

**Contents:**

indications, preparation and clinical procedures of gold and ceramic inlays-onlays

**Learning activities and teaching methods:**

lectures, practical (phantom) exercises

**Recommended or required reading:**

Schillingburg HT, Jacobi R, Brackett SE. Fundamentals of tooth preparations for cast metal and porcelain restorations. Quintessence 1987. Garber DA, Goldstein RE. Porcelain & composite inlays & onlays. Lecture handout material.

**Assessment methods and criteria:**

lectures, practical (phantom) exercises

**Grading:**

Pass/fail

**Person responsible:**

Senior Lecturer Ritva Näpänkangas (ritva.napankangas(at)oulu.fi), Senior Lecturer Kirsi Sipilä (kirsi.sipila(at)oulu.fi)

**090509A: Internal Medicine, 3,8 - 5,5 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

**090509A-01: Internal Medicine I, 3 - 3,5 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Medicine

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

**090509A-02: Internal Medicine II, 0,8 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

**090303A: Internal Medicine for Dental Students, 0,8 op**

**Voimassaolo:** 01.08.2011 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

**090602Y: Introduction to Clinical Work, 1,5 op**

**Opiskelumuoto:** General Studies

**Laji:** Course

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Pernu, Hilikka Elina

**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

**090601A-08: Introduction to Development of Occlusion and Orthodontics, 0,5 op**

**Voimassaolo:** 01.08.2008 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Pirttiniemi, Pertti Mikael

**Opintokohteen kielet:** Finnish

**Language of instruction:**  
Finnish

**040300A: Maturity exam (native language), 0 op**

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuyksikkö:** Medicine

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Outi Mikkola

**Opintokohteen kielet:** Finnish

**Contents:**

Student writes an essay in his/her native language about the topic of the thesis to show a good command of the language and the content of the thesis. If the student's native language is another than Finnish or Swedish the Faculty will define separately the requirements for the language test.

**Learning activities and teaching methods:**

Writing an essay.

**Assessment methods and criteria:**

The essay is examined first by the supervisor of the thesis and then by the language teacher.

**Grading:**

Pass / fail

**040011Y-01: Medical informatics, module 1, information and Communication Technology, 0,5 op**

**Opiskelumuoto:** General Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Medicine

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Paadar, Matti Reino Isak

**Opintokohteen kielet:** Finnish

**Timing:**

C1

**Learning outcomes:**

By the end of the course the student will have practiced the following skills:

- using information and communication technology resources in the University of Oulu,
- using workstations available in the Medical Faculty,
- applying basic software necessary in the studies

**Contents:**

Workstations, information security and confidentiality, networks, office software

**Learning activities and teaching methods:**

Lectures 2 h, group work in computer class-room 6-8 h and completion of a practical project 4 h. Group works include practical work with the university network, web-learning environment and software installed in the workstations.

**Assessment methods and criteria:**

Regular and active participation in the small group lessons and completion of a practical project.

**Grading:**

Pass/Fail

**Person responsible:**

Docent Pentti Nieminen

**Other information:**

This course is a part of the studies in research skills.

## 040011Y-02: Medical informatics, module 2, literature retrieval, 1 op

**Opiskelumuoto:** General Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Medicine

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Pentti Nieminen

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

1 cr

**Timing:**

C2

**Learning outcomes:**

By the end of the course the student will have practiced the following skills:

- search research articles using basic literature retrieval methods
- use bibliographic databases available at the Medical Faculty

**Contents:**

1. Library information systems, 2. Medical and dental publications, 3. Scientific online journals, 4. Medline, 5. Medic, 6. Scopus, 7. Cochrane, 8. Electronic books, 9. Reference management software.

**Learning activities and teaching methods:**

Lectures 4 h, group lessons in computer class-room 9 h and completion of practical projects 10 h.

**Assessment methods and criteria:**

Regular and active participation in the small group lessons and completion of practical projects.

**Grading:**

Pass/Fail

**Person responsible:**

Docent Pentti Nieminen

**Other information:**

This course is a part of the studies in research skills.

## 092201A: Microbiology/Infections, 2 - 2,1 op

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Ritva Näpänkangas

**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

## 090205A: Neurology, 0,4 - 0,5 op

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

## **090601A-09: ORTHO-Seminars 1-5, 1,4 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Raija Lähdesmäki

**Opintokohteen kielet:** Finnish

### **Language of instruction:**

**Finnish**

### **Timing:**

DC7-DC10, to deepen the knowledge in Orthodontic treatment

### **Learning outcomes:**

After the seminar student can assess the meaning of the variation of the occlusion and the screening of the treatment need. He is also able to assess between different treatment options and in that the timing of treatment. Student is able to look for new knowledge and assess it critically.

### **Contents:**

Tutorial teaching deepens the knowledge on the variation and treatment options of abnormal occlusion by student's seminar presentations of the treatment goals, procedures and result with their orthodontic patients (DC7-1, DC8-3, DC10-5). In a theoretical seminar student makes presentations of given methods and timing on the treatment of abnormal occlusion (DC8-2, DC9-4). After each seminar (1-5) student reflects the learning experience in OPTIMA-learning environment and gets tutorial feed-back.

### **Learning activities and teaching methods:**

own patient and theoretical seminar presentations in group and given reflection in OPTIMA learning environment (1-5)

### **Recommended optional programme components:**

Basic facilities in Orthodontics (090601A-01)

### **Recommended or required reading:**

The documentation of the orthodontic patients in clinical teaching. Independent work with new references from Medline and PubMed. Presentation software (e.g. Power Point)

### **Assessment methods and criteria:**

Self-made presentation in seminars and activity in discussions, reflection in OPTIMA learning environment (each seminar is separate entity, the order is advisory)

### **Grading:**

0 failproof, 1-5 passed (seminar 1-5) / final grade as the mean (scale 1-5)

Each seminar has to be passed independently.

### **Person responsible:**

Professor Pertti Pirttiniemi (at) oulu.fi

### **Other information:**

The seam of the Basic facilities in Dentistry

Credits of this course are included in the final degree in Orthodontics.

## **090603A-02: OSCE, 0 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Practical training

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

**Language of instruction:****Finnish****Timing:**

Fourth year, Spring term

**Contents:**

Studies during the first four years

**Learning activities and teaching methods:**

Multiple-choice questions and tasks dealing with clinical problems

**Assessment methods and criteria:**

Multiple-choice questions and tasks dealing with clinical problems

**Grading:**

Pass/fail

**090505A-08: Occlusal Rehabilitation in Periodontal Therapy, 1 op****Opiskelumuoto:** Intermediate Studies**Laji:** Partial credit**Vastuuyksikkö:** Institute of Dentistry**Arvostelu:** 1 - 5, pass, fail**Opintokohteen kielet:** Finnish**Language of instruction:****Finnish****Timing:**

3rd year, Spring term

**Contents:**

Occlusal aspects in diagnostics and treatment of periodontally destructed dentition

**Learning activities and teaching methods:**

lectures, demonstrations, individual studies

**Recommended or required reading:**

Carranza's Clinical Periodontology, pages:

**Assessment methods and criteria:**

written exam (together with 090503A-03 Removable Partial Dentures)

**Grading:**

scale 0-5

**Person responsible:**

Senior Lecturer Hilikka Pernu (hilikka.pernu(at)oulu.fi)

**090502A-04: Odontogenic Infections, 0,6 - 1,3 op****Opiskelumuoto:** Intermediate Studies**Laji:** Partial credit**Vastuuyksikkö:** Institute of Dentistry**Arvostelu:** 1 - 5, pass, fail**Opettajat:** Leena Ylikontiola**Opintokohteen kielet:** Finnish**Language of instruction:****Finnish****Timing:**

4th year Spring term

**Learning activities and teaching methods:**

lectures, individual studies

**Recommended or required reading:**

Contemporary Oral and Maxillofacial Surgery/Editors: James R. Hupp, Edward Ellis, Myron R. Tucker. 5th ed. Mosby 2008.

Kurssikirjojen saatavuuden voi tarkistaa [tästä linkistä](#) .**Assessment methods and criteria:**

written exam together with course 090506A-02 Roentgenographic Picture of Osteomyelitis, Roentgenographic Features of the Benign and Malignant Tumors

**Grading:**

scale 0-5

**Person responsible:**

Senior Lecturer Leena Ylikontiola (leena.ylikontiola(at)oulu.fi)

**Other information:**

Dental and Oral Diseases and General Health Strand

## 090501A-02: Operative Dentistry, 5,1 op

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Seppä Liisa

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

5,1 credits

**Language of instruction:**

Finnish

**Timing:**

3rd year Autumn/Spring term, Subject studies

**Learning outcomes:**

The student knows the basics of caries diagnostics and is able to restore teeth damaged by caries using contemporary filling materials and techniques.

**Contents:**

Operative dentistry: signs and symptoms of caries; clinical and radiographical diagnostics; treatment planning; cavity preparation; filling techniques and materials; fissure sealants.

**Learning activities and teaching methods:**

lectures, individual studies, practical exercises

**Recommended or required reading:**

Material provided during the course

**Assessment methods and criteria:**

Exam

**Grading:**

Pass/fail

**Person responsible:**

Senior Research Fellow Liisa Seppä liisa.seppa (at) oulu.fi

**Other information:**

Basic Practical Skills Strand

### 090501A Preventive Dentistry and Cariology

After different course parts there will be midterm exams covering the topics dealt with in the course in question. In the beginning of DC 5, there will be the exam covering the lectures given in DC 4 and related chapters in textbook: passing this exam is required for the admittance to Restorative Dentistry course 090501A-02.

Passing the midterm exams is the prerequisite for attending the clinical studies and final exam. All the topics covered in different course parts, as well as related topics in textbooks, are required in the final exam.

Final grade will be based on the a) the results of the midterm and final exams; b) score achievement in continuous clinical performance evaluation (given by clinical supervisors), and ; c) performance in competence evaluation (given by clinical supervisors and assisting staff).

## 090601A: Oral Development and Orthodontics, 10 - 12 op

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Pirttiniemi, Pertti Mikael

**Opintokohteen kielet:** Finnish

**Language of instruction:**  
Finnish

## 090302A: Oral Pathology, 6,6 - 9,8 op

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Salo, Tuula Anneli

**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

## 090302A-04: Oral Pathology, microscopy course, 0,6 op

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

**Voidaan suorittaa useasti:** Kyllä

### ECTS Credits:

0,6 credits

**Language of instruction:**  
(Demonstrations in Finnish)

### Timing:

5th year Autumn/Spring term, Advanced studies

### Learning outcomes:

(The student will know the variations in the normal structures of the oral cavity and knows the basic histopathological features of oral and maxillofacial diseases. The student knows the basic and special histological diagnostic methods and is able to understand the meanings behind the pathological statements.)

### Contents:

(Microscopical findings of oral mucosal diseases, odontogenic, salivary gland, soft tissue and bone tumors, as well as in inflammatory and autoimmune conditions within oral cavity and jaw bones.)

### Learning activities and teaching methods:

Virtual microscopy demonstrations

### Recommended optional programme components:

(Is helpful for the studies in the 090302A-01 oral pathology course)

### Recommended or required reading:

(Study material; selected portions:

Regezi JA, Sciubba J, Jordan RCK. Textbook: *Oral & Maxillofacial Pathology: Clinical-Pathologic Correlations. 5th edition.* [WB Saunders Co.](#), Philadelphia, PA, 2008

Handouts in Finnish)

### Assessment methods and criteria:

(At least 80% of the demonstrations should be followed)

### Grading:

Pass/fail

### Person responsible:

Professor Tuula Salo (at) oulu.fi

### Other information:

(Is helpful for the studies in the 090302A-01 oral pathology course)

## 090502A-05: Oral Surgery and General Health, 0,5 - 3,8 op

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Oikarinen, Kyösti Sakari

**Opintokohteen kielet:** Finnish

**Language of instruction:**

**Finnish**

**Timing:**

5th year Autumn term, Subject studies

**Learning outcomes:**

to deepen the student's understanding about general diseases, to give him/her the basics of treating oral cancer and sleep apnea, bring out the special features required in treating patients under radiation and chemotherapeutic treatment

**Contents:**

general diseases in regards of oral surgery, treatment of a patient under radiation therapy, treatment of a patient under chemotherapeutics, treatment of oral cancer, diagnosis and treatment of sleep apnea

**Learning activities and teaching methods:**

lectures, individual studies

**Recommended or required reading:**

Contemporary Oral and Maxillofacial Surgery/Editors: James R. Hupp, Edward Ellis, Myron R. Tucker. 5th ed. Mosby 2008.

Kurssikirjojen saatavuuden voi tarkistaa [tästä linkistä](#) .

**Grading:**

Pass/fail

**Person responsible:**

Senior Lecturer Antti Raunio (antti.raunio(at)oulu.fi)

**Other information:**

Dental and Oral Diseases and General Health Strand

## 090502A-06: Oral and Maxillofacial Rehabilitation I, 0,3 - 0,9 op

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Antti Raunio

**Opintokohteen kielet:** Finnish

**Language of instruction:**

**Finnish**

**Timing:**

3rd year Spring term

**Learning outcomes:**

To give the student understanding about the possibilities of the surgical treatment in occlusal rehabilitation

**Contents:**

orthognathic surgery

**Learning activities and teaching methods:**

lectures, individual studies

**Recommended or required reading:**

Contemporary Oral and Maxillofacial Surgery/Editors: James R. Hupp, Edward Ellis, Myron R. Tucker. 5th ed. Mosby 2008.

Kurssikirjojen saatavuuden voi tarkistaa [tästä linkistä](#) .

**Grading:**

Pass/fail

**Person responsible:**

Senior Lecturer Antti Raunio (antti.raunio(at)oulu.fi)

**Other information:**

Oral Rehabilitation Strand

**090502A-07: Oral and Maxillofacial Rehabilitation II, 0,2 - 0,3 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Antti Raunio

**Opintokohteen kielet:** Finnish

**Language of instruction:**

**Finnish**

**Timing:**

4th year, Autumn term

**Learning outcomes:**

To give further understanding about the surgical possibilities in occlusal rehabilitation

**Contents:**

Surgery of the temporomandibular joint (TMJ-surgery)

**Learning activities and teaching methods:**

lectures, individual studies

**Recommended or required reading:**

Contemporary Oral and Maxillofacial Surgery/Editors: James R. Hupp, Edward Ellis, Myron R. Tucker. 5th ed. Mosby 2008.

Kurssikirjojen saatavuuden voi tarkistaa [tästä linkistä](#) .

**Grading:**

Pass/fail

**Person responsible:**

Senior Lecturer Antti Raunio (antti.raunio(at)oulu.fi)

**Other information:**

Oral Rehabilitation Strand

**090502A: Oral and Maxillofacial Surgery, 12,5 - 23 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Oikarinen, Kyösti Sakari

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

18,4 credits

**Language of instruction:**

**Finnish**

**Contents:**

090502A-00 Preliminary examination, Oral and Maxillofacial Surgery

090502A-01 Principles of Oral and Maxillofacial Surgery

090502A-02 Dentoalveolar Surgery

090502A-03 Dental and Maxillofacial Injuries - diagnostics and treatment

090502A-04 Odontogenic Infections

090502A-05 Oral Surgery and General Health

090502A-06 Oral and Maxillofacial Rehabilitation I

090502A-07 Oral and Maxillofacial Rehabilitation II

090502A-08 Implant Dentistry

090502A-09 Facial Pain Conditions

090502A-12 Pediatric Oral and Maxillofacial Surgery  
 090502A-10 Syndromes in the Head and Maxillofacial Region (elective course)  
 090502A-11 Final Exam, Oral and Maxillofacial Surgery

## 090302A-01: Oral pathology, 5,2 - 6 op

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Salo, Tuula Anneli, Arja Kullaa

**Opintokohteen kielet:** Finnish

**Voidaan suorittaa useasti:** Kyllä

**ECTS Credits:**

6 credits

**Language of instruction:**

( Lectures in Finnish; research projects also in English)

**Timing:**

5th year Autumn term, Subject and Advanced Studies

**Learning outcomes:**

(As general requirements for all dentists is the basic knowledge about the anatomical and histological structures of oral cavity, teeth and jaw bones. The student will know the clinical and histological variations in the normal structures of the oral cavity and jaws and the diagnostic features, steps and evaluations related to the most common oral mucosal, soft and hard tissue diseases. Particularly the student knows the special features related to oral cancer diagnostics and treatment. In addition the basic knowledge related to scientific research is required in order to be able to follow critically and adapt new evidence based research in medical and dental field.)

**Contents:**

(Clinical and histopathological findings of oral mucosal diseases, odontogenic, salivary gland, soft tissue and bone tumors, as well as in inflammatory and autoimmune conditions within oral cavity and jaw bones. In addition, the challenges in diagnostics and treatment of oral cancer are covered.)

**Learning activities and teaching methods:**

lectures

**Recommended optional programme components:**

**(All preclinical dental studies are prerequisites for this course)**

**Recommended or required reading:**

(Study material; selected portions:

Regezi JA, Sciubba J, Jordan RCK. Textbook: *Oral & Maxillofacial Pathology: Clinical-Pathologic Correlations. 5th edition. WB Saunders Co.* , Philadelphia, PA, 2008

Handout in Finnish)

**Assessment methods and criteria:**

written exam

**Grading:**

scale 0-5

**Person responsible:**

Tuula Salo (at) oulu.fi, Arja Kullaa (at) oulu.fi

## 090510A-11: Organization and Providers of Oral Health Care Services, 0,4 op

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

**Language of instruction:**

Finnish

**Timing:**

1st year, Spring term, Subject studies

**Learning outcomes:**

Student knows oral health care personnel, organization and providers of oral health care services in Finland as well as the principles of health promotion.

**Contents:**

Part of the teaching is integrated at C1 and C4 with the teaching of Department of Public Health Science and General Practice. (See: Ihminen, yhteiskunta, terveys ja sairaus)

**Learning activities and teaching methods:**

lectures, site-visit to public health dentist

**Recommended or required reading:**

recent scientific and other relevant articles provided in the beginning of the course

**Assessment methods and criteria:**

learning assignment

**Grading:**

Pass/fail

**Person responsible:**

Professor Satu Lahti (at) oulu.fi

**Other information:**

Preclinical Strand

**090605A-01: Other elective course, 0 - 1,5 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

**Voidaan suorittaa useasti:** Kyllä

Ei opintojaksokuvauksia.

**090508A: Otorhinolaryngology, 0,5 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Alho, Olli-Pekka

**Opintokohteen kielet:** Finnish

**090202A: Paediatrics, 0,5 - 1,8 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Kontiokari, Tero Tapani

**Opintokohteen kielet:** Finnish

**Voidaan suorittaa useasti:** Kyllä

**Language of instruction:**

Finnish

**Timing:**

4th year Autumn term, Subject studies

**Learning outcomes:**

After special subject days students have knowledge about children's normal physical and psychic growth and development and the factors affecting them and about the most common acute and chronic diseases of children.

**Contents:**

The most common neurological diseases of children. The diagnostics of the syndromes of head. Children's diabetes, allergies and asthma.

Children's normal psychic development and the most common disturbances. Children's anxiety.

**Learning activities and teaching methods:**

Special subject days

**Assessment methods and criteria:**

Obligatory presence and prepare patient cases and present them in groups

**Grading:**

Pass/fail

**Person responsible:**

Professor Mikko Hallman (pediatrics) and professor Irma Moilanen (pediatric psychiatry)

Senior Lecturer Sari Koskinen (pedodontics)

**Other information:**

Development and Growth Strand

**090603Y: Patient seminar, 0 op**

**Voimassaolo:** 01.08.2011 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

**Voidaan suorittaa useasti:** Kyllä

Ei opintojaksokuvauksia.

*Compulsory*

**090603Y-01: Patient seminars, 0 op**

**Voimassaolo:** 01.08.2011 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

**Voidaan suorittaa useasti:** Kyllä

Ei opintojaksokuvauksia.

**090603Y-02: Patient seminars; preparation and presentation, 0 - 2 op**

**Voimassaolo:** 01.08.2011 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

## 090502A-12: Pediatric oral and maxillofacial surgery, 0,4 - 0,5 op

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Leena Ylikontiola

**Opintokohteen kielet:** Finnish

**Language of instruction:**

**Finnish**

**Timing:**

4th year Autumn/Spring term

**Learning activities and teaching methods:**

lectures

**Recommended or required reading:**

Contemporary Oral and Maxillofacial Surgery/Editors: James R. Hupp, Edward Ellis, Myron R. Tucker. 5th ed. Mosby 2008.

Kurssikirjojen saatavuuden voi tarkistaa [tästä linkistä](#) .

**Grading:**

Pass/fail

**Person responsible:**

Department of Oral and Maxillofacial Surgery, Senior Lecturer

## 090501A-07: Pedodontics, 1,2 - 2,5 op

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

**Voidaan suorittaa useasti:** Kyllä

**Language of instruction:**

**Finnish**

**Timing:**

4th year Autumn term, Subject studies

**Learning outcomes:**

After course the student is ready to meet child and family in dental care, has knowledge of the principles of preventive dentistry, is able to identify risk factors of early caries development and first signs of the disease and readiness to intervene them. Student has also knowledge about principles of restorative treatment techniques and pulpal therapy in pedodontics, and readiness to start clinical work. They also have information of the developmental disturbances of teeth and of the chronic health conditions and their implications for oral health.

**Contents:**

Child as a dental patient, how to meet children and their patients, children's dental fear and its treatment. Early caries development and risk factors, children's preventive dental care. Main principles in restorative dental care in children, pulp therapy in primary dentition and in immature permanent teeth. Developmental dental defects of the dental hard tissues and their treatment. Dental care for diseased children and handicapped children.

**Learning activities and teaching methods:**

Lectures, fantom-teaching, visit to well-baby clinic

**Recommended or required reading:**

Koch G & Poulsen S (eds.): Pediatric dentistry- A clinical approach. 2<sup>nd</sup> edition, May 2009, Wiley-Blackwell. ISBN: 978-1-4051-6100-8

**Assessment methods and criteria:**

Learning journal, fantom- working

**Grading:**

Pass/fail

**Person responsible:**

Senior Lecturer Päivi Ollila (paivi.ollila(at)oulu.fi)

**Other information:**

Development and Growth Strand

**090501A Preventive Dentistry and Cariology**

After different course parts there will be midterm exams covering the topics dealt with in the course in question. In the beginning of DC 5, there will be the exam covering the lectures given in DC 4 and related chapters in textbook: passing this exam is required for the admittance to Restorative Dentistry course 090501A-02.

Passing the midterm exams is the prerequisite for attending the clinical studies and final exam. All the topics covered in different course parts, as well as related topics in textbooks, are required in the final exam.

Final grade will be based on the a) the results of the midterm and final exams; b) score achievement in continuous clinical performance evaluation (given by clinical supervisors), and ; c) performance in competence evaluation (given by clinical supervisors and assisting staff).

**090505A-06: Periodontal Diseases and General Health, 2,1 - 3,9 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Tellervo Tervonen

**Opintokohteen kielet:** Finnish

**Language of instruction:**

**Finnish**

**Timing:**

5th year, Autumn term

**Learning outcomes:**

Associations between periodontal diseases and systemic health and diseases. To give advanced knowledge of periodontal infections on tissue and cell level.

**Contents:**

Different systemic diseases and disorders as a risk for periodontal diseases; Periodontal medicine. Molecular biology of inflammation; Genetic aspects of periodontal diseases.

**Learning activities and teaching methods:**

lectures, individual studies

**Recommended or required reading:**

Carranza's Clinical Periodontology, pages:

**Assessment methods and criteria:**

written exam

**Grading:**

scale 0-5

**Person responsible:**

Professor Matti Knuutila (matti.knuutila(at)oulu.fi)

**090505A-03: Periodontal Surgery, 2,2 - 2,7 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Tellervo Tervonen

**Opintokohteen kielet:** Finnish

**Language of instruction:**

**Finnish**

**Timing:**

4th year, Autumn term

**Learning outcomes:**

To understand wound healing and the most important techniques of periodontal surgery

**Contents:**

General principles of periodontal surgery, surgical anatomy and different techniques of periodontal surgery

**Learning activities and teaching methods:**

lectures, seminars, practical exercises, individual studies

**Recommended or required reading:**

Carranza's Clinical Periodontology, pages:

**Assessment methods and criteria:**

written exam (together with 090502A-02 Dentoalveolar Surgery and 090506A-03 Roentgenographic Studies for Surgical Purposes)

**Grading:**

scale 0-5

**090505A-13: Periodontal diseases in children, 0,3 - 0,5 op**

**Voimassaolo:** 01.08.2007 -

**Opiskelumuoto:** Advanced Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

**Language of instruction:**

Finnish

**Timing:**

4th year Autumn or Spring term

**Recommended or required reading:**

Carranza's Clinical Periodontology, pages:

**Grading:**

Pass/fail

**Person responsible:**

Professor Matti Knuutila (matti.knuutila(at)oulu.fi)

**090505A: Periodontology and Geriatric Dentistry, 12 - 17,4 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Tellervo Tervonen

**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

**090503A-001: Preliminary exam, Fixed prosthodontics, 0 op**

**Voimassaolo:** 01.08.2008 - 31.07.2010

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Ritva Näpänkangas

**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

**090502A-00: Preliminary examination, Oral and Maxillofacial Surgery, 0 op**

**Voimassaolo:** 01.09.2002 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Oikarinen, Kyösti Sakari

**Opintokohteen kielet:** Finnish

**Language of instruction:**

**Finnish**

**Timing:**

3rd year Autumn term

**Contents:**

Preliminary examination, Oral and Maxillofacial Surgery

**Grading:**

Pass/fail

**Other information:**

See also 090502A-01 Principles of Oral and Maxillofacial Surgery

### **090501A-001: Preliminary examination, cariology, 0 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Leo Tjäderhane

**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

### **090505A-00: Preliminary examination, periodontology, 0 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

**Language of instruction:**

**Finnish**

**Timing:**

3rd year, Autumn term

**Recommended or required reading:**

Carranza's Clinical Periodontology, pages:

**Grading:**

Pass/fail

**Person responsible:**

Professor Matti Knuuttila (matti.knuuttila(at)oulu.fi)

### **080206A: Prescriptions, 0,5 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Medicine

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Viitala, Pirkko Liisa

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

1.0 p

**Language of instruction:**

Finnish

**Timing:**

C5 / DC5

**Learning outcomes:**

The student will learn correct prescription skills and will get familiar with the official regulations and restrictions concerning prescription, delivery and reimbursement of the drugs. Additionally the student will get a general view to chemist's role in drug delivery.

**Contents:**

Structure and content of prescription. Different types and uses of prescription. Regulations of prescription and drug delivery and reimbursement. Cooperation of doctor/dentist, chemist's and Kela (The Social Insurance Institution of Finland) for safe and efficient drug therapy. Introduction to drug registration, licensing, quality control and preservation.

**Learning activities and teaching methods:**

Lectures 8 h. Prescription writing practice 2 h.

**Recommended or required reading:**

Book: Ilari Paakkari: Käytännön reseptioppi (Kandidaattikustannus Oy, latest edition). Course material and appropriate lists and regulations in the Pharmaca Fennica.

**Assessment methods and criteria:**

Written exam. Acceptable performance requires good knowledge on the theory and satisfactory prescription ability.

**Grading:**

Pass/fail

**Person responsible:**

Pirkko Viitala (pirkko.viitala@oulu.fi)

## 090501A: Preventive Dentistry and Cariology, 14,9 - 17,9 op

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Leo Tjäderhane

**Opintokohteen kielet:** Finnish

**Language of instruction:**

Finnish

**Grading:**

After different course parts there will be midterm exams covering the topics dealt with in the course in question. In the beginning of DC 5, there will be the exam covering the lectures given in DC 4 and related chapters in textbook: passing this exam is required for the admittance to Restorative Dentistry course 090501A-02.

Passing the midterm exams is the prerequisite for attending the clinical studies and final exam. All the topics covered in different course parts, as well as related topics in textbooks, are required in the final exam.

Final grade will be based on the a) the results of the midterm and final exams; b) score achievement in continuous clinical performance evaluation (given by clinical supervisors), and ; c) performance in competence evaluation (given by clinical supervisors and assisting staff).

**Person responsible:**

Professor Leo Tjäderhane (leo.tjaderhane(at)oulu.fi)

## 090506A-01: Principles of Dental Radiology, 1,9 - 3,8 op

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

**Voidaan suorittaa useasti:** Kyllä

Ei opintojaksokuvauksia.

## **090502A-01: Principles of Oral and Maxillofacial Surgery, 3,2 - 4,7 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Oikarinen, Kyösti Sakari

**Opintokohteen kielet:** Finnish

**Voidaan suorittaa useasti:** Kyllä

### **Language of instruction:**

**Finnish**

### **Timing:**

3rd year Autumn/Spring term, Subject studies

### **Learning outcomes:**

- To teach how to examine the oral surgical patient and do the anamnesis
- To study the essentials of general diseases and medication of the patients
- Theoretical and practical teaching -to learn to give local anesthetics
- To learn to do uncomplicated tooth extractions

### **Contents:**

- Theoretical and practical teaching how to examine the patient
- Theoretical and practical teaching in local anesthetic
- Theoretical and practical teaching in aseptics
- Theoretical and practical teaching in tooth extractions
- Theoretical and practical teaching in suturing technique

### **Learning activities and teaching methods:**

lectures, practical exercises, seminars/small groups, individual studies

### **Recommended optional programme components:**

Litterar exam to get into the course

### **Recommended or required reading:**

Contemporary Oral and Maxillofacial Surgery/Editors: James R. Hupp, Edward Ellis, Myron R. Tucker. 5th ed. Mosby 2008.

### **Assessment methods and criteria:**

1) Litterar exam to get into the course 2) written exam

### **Grading:**

1) Pass/fail 2) scale 0-5

### **Person responsible:**

Professor Kyösti Oikarinen (kyosti.oikarinen(at)oulu.fi)

## **090203A: Propedeutic Course on Surgery, 1,5 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Medicine

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Juvonen, Tatu Sakari

**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

### **090503A: Prosthetic Dentistry, 12,3 - 16 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Raustia, Aune Maritta

**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

### **090503A-10: Prosthetic Management for Advanced Cases, 0,8 - 1,1 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Raustia, Aune Maritta

**Opintokohteen kielet:** Finnish

**Language of instruction:**

**Finnish**

**Timing:**

5th year, Autumn/Spring term

**Learning outcomes:**

- To recognize the most general developmental dental defects and know the principles of prosthetic treatment methods and to diagnose and/or perform the conventional follow-up treatment.
- To know mainly the treatment methods used in the management of patients needing maxillofacial prosthodontics.
- After the lectures students know the basic prosthetic principles in treatment of worn dentition.

**Learning activities and teaching methods:**

1 lectures, treatment planning exercises

**Assessment methods and criteria:**

full-time participation needed

**Grading:**

Pass/fail

**Person responsible:**

Professor Aune Raustia (aune.raustia(at)oulu.fi), Senior Lecturer Ritva Näpänkangas (ritva.napankangas(at)oulu.fi)

### **090510A-09: Providing Oral Health Care Services in Private Sector, 0,8 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

**Language of instruction:**

**Finnish**

**Timing:**

5th year, Autumn/Spring term, Advanced studies

**Learning outcomes:**

Students know the possibilities of providing oral health care services private sector.

**Contents:**

See objective of the course

**Learning activities and teaching methods:**

lectures, group works, individual studies

**Recommended or required reading:**

recent scientific and other relevant articles provided in the beginning of the course

**Assessment methods and criteria:**

learning assignment

**Grading:**

Pass/fail

**Person responsible:**

Professor Satu Lahti (at) oulu.fi

**Other information:**

Electives/090605A Alternative and optional studies

### **090404A: Psychiatry, 0,4 - 0,5 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

### **090506A-05: Radiation Safety, 1,1 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

### **090506A-07: Radiation safety, elective course, 0,6 op**

**Voimassaolo:** 01.09.2005 -

**Opiskelumuoto:** Advanced Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Rosberg, Jukka Alvi Einari

**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

### **090505A-09: Regenerative and Esthetic Periodontal Surgery, 1 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

**Language of instruction:****Finnish****Timing:**

5th year, Autumn/Spring term

**Learning outcomes:**

To give a sight to indications and techniques of regenerative and esthetic periodontal surgery.

**Grading:**

Pass/fail

**Person responsible:**

Professor Matti Knuuttila (matti.knuuttila(at)oulu.fi), Senior Lecturer Hilikka Pernu (hilikka.pernu(at)oulu.fi)

**090510A-06: Rehabilitation of Occlusion among Groups of Population, 0,4 op****Opiskelumuoto:** Intermediate Studies**Laji:** Partial credit**Vastuuyksikkö:** Institute of Dentistry**Arvostelu:** 1 - 5, pass, fail**Opintokohteen kielet:** Finnish**Language of instruction:****Finnish****Timing:**

4th year, Spring term, Subject studies

**Learning outcomes:**

Student understands the role of health economics in public and private sector and cooperation between primary health care and specialised care as well as principles of prioritization.

**Contents:**

See objective of the course

**Learning activities and teaching methods:**

lectures, group works, individual studies

**Recommended or required reading:**

recent scientific and other relevant articles provided in the beginning of the course

**Assessment methods and criteria:**

learning assignment

**Grading:**

Pass/fail

**Person responsible:**

Professor Satu Lahti (at) oulu.fi

**Other information:**

Oral Rehabilitation Strand

**090503A-03: Removable Partial Dentures, 2 - 2,5 op****Opiskelumuoto:** Intermediate Studies**Laji:** Partial credit**Vastuuyksikkö:** Institute of Dentistry**Arvostelu:** 1 - 5, pass, fail**Opettajat:** Ritva Kuoppala**Opintokohteen kielet:** Finnish**Language of instruction:****Finnish****Timing:**

3rd year Spring term - 4th year Autumn term

**Learning outcomes:**

To recognize and diagnose patients with partially edentulous jaws and to give theoretical and clinical skills for the treatment of patients with removable partial denture.

**Contents:**

Destruction of occlusion, indications of removable partial dentures, patient examination/treatment planning, pre-prosthetic treatment, components and design aspects of a partial denture, impressions, occlusion, complications /problems/prognosis

**Learning activities and teaching methods:**

lectures, demonstrations, treatment planning exercises

**Recommended or required reading:**

lecture handout material

**Assessment methods and criteria:**

written exam (together with 090505A-08 Oral Rehabilitation in Periodontal Therapy)

**Grading:**

scale 0-5

**Person responsible:**

Senior Lecturer Ritva Kuoppala (ritva.kuoppala(at)oulu.fi), Senior Lecturer Erkki Hujanen (erkki.hujanen(at)oulu.fi)

### **090503A-003: Removable partial dentures, preliminary exam, 0 op**

**Voimassaolo:** 01.08.2008 - 31.07.2010

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Ritva Kuoppala

**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

### **090602A: Research methods, 1 op**

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

### **090605A-02: Research seminars, participation, 0 - 3 op**

**Voimassaolo:** 01.01.2006 -

**Opiskelumuoto:** Advanced Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

**Voidaan suorittaa useasti:** Kyllä

Ei opintojaksokuvauksia.

### **090503A-05: Resin Bonded Bridges (Maryland Bridges), 0,2 - 0,3 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Ritva Kuoppala

**Opintokohteen kielet:** Finnish

**Language of instruction:**

Finnish

**Timing:**

4th year, Autumn term

**Learning outcomes:**

To give theoretical and clinical knowledge about different types of resin-bonded fixed partial dentures including tooth preparation and clinical procedures

**Contents:**

indications, preparation and clinical procedures of resin-bonded fixed partial dentures

**Learning activities and teaching methods:**

lectures

**Recommended or required reading:**

lecture handout material

**Assessment methods and criteria:**

full-time participation needed

**Grading:**

Pass/fail

**Person responsible:**

Senior Lecturer Ritva Kuoppala (ritva.kuoppala(at)oulu.fi)

### **090506A-02: Roentgenographic Picture of Osteomyelitis. Roentgenographic Features of the Benign and Malignant Tumors, 0,3 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Rosberg, Jukka Alvi Einari

**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

### **090506A-03: Roentgenographic Studies for Surgical Purposes, 1,4 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

### **090505A-04: Seminars of Periodontology, 1,1 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Tellervo Tervonen

**Opintokohteen kielet:** Finnish

**Language of instruction:****Finnish****Timing:**

5th year, Spring term

**Learning outcomes:**

To evaluate recent periodontal research

**Contents:****Learning activities and teaching methods:**

seminars/small groups

**Recommended optional programme components:**

previous courses in Periodontology

**Grading:**

pass/fail

**Person responsible:**

Professor Matti Knuuttila (matti.knuuttila(at)oulu.fi)

**090505A-02: Special Topics in Nonsurgical Periodontal Therapy, 1,1 - 1,5 op****Opiskelumuoto:** Intermediate Studies**Laji:** Partial credit**Vastuuyksikkö:** Institute of Dentistry**Arvostelu:** 1 - 5, pass, fail**Opettajat:** Pernu, Hilikka Elina**Opintokohteen kielet:** Finnish**Language of instruction:****Finnish****Timing:**

3rd year, Spring term

**Learning outcomes:**

To give additional knowledge and skills for nonsurgical periodontal therapy

**Contents:**

Individual and population based preventive periodontal therapy; Anti-infective periodontal treatment; Gingival curettage and gingivoplasty; Furkation lesions; Epidemiology of periodontal diseases; Acute gingival and periodontal diseases

**Learning activities and teaching methods:**

lectures, seminars/small groups, individual studies

**Recommended optional programme components:**

Previous courses in periodontology

**Recommended or required reading:**

Carranza's Clinical Periodontology, pages:

**Grading:**

scale 0-5 or pass/fail

**Person responsible:**

Professor Matti Knuuttila (matti.knuuttila(at)oulu.fi)

**090504A: Stomatognathic Physiology, 3 - 7,5 op****Opiskelumuoto:** Intermediate Studies**Laji:** Course**Vastuuyksikkö:** Institute of Dentistry**Arvostelu:** 1 - 5, pass, fail**Opettajat:** Raustia, Aune Maritta**Opintokohteen kielet:** Finnish**Language of instruction:****Finnish**

**Timing:**

2nd year Autumn/Spring term, 3rd year Autumn term, 4th year Autumn term

**Learning outcomes:**

See 090504A-01, 090504A-02, 090504A-03

**Contents:**

See 090504A-01, 090504A-02, 090504A-03

**Learning activities and teaching methods:**

See 090504A-01, 090504A-02, 090504A-03

**Recommended optional programme components:**

See 090504A-01, 090504A-02, 090504A-03

**Recommended or required reading:**

See 090504A-01, 090504A-02, 090504A-03

**Assessment methods and criteria:**

See 090504A-01, 090504A-02, 090504A-03

**Grading:**

scale 0-5

**Person responsible:**

Professor Aune Raustia

**Other information:**

See 090504A-01, 090504A-02, 090504A-03

**090504A-01: Stomatognathic Physiology I (orthofunction), 2,8 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Raustia, Aune Maritta

**Opintokohteen kielet:** Finnish

**Language of instruction:**

**Finnish**

**Timing:**

2nd year, Autumn/Spring term

**Contents:**

Bony structure of the masticatory system ; macro- and microanatomy of temporomandibular joint; structure and function of the masticatory muscles, function of the mandible, registration of the occlusion, examination of a patient.

**Learning activities and teaching methods:**

lectures, self-access learning

**Recommended or required reading:**

lecture handout material, Jeffrey P. Okeson: Management of Temporomandibular Disorders and Occlusion, Mosby (5th edition 2003, 6th edition 2008)

**Assessment methods and criteria:**

written exam

**Grading:**

scale 0-5

**Person responsible:**

Professor Aune Raustia, Senior Lecturer Ritva Näpänkangas

**090504A-02: Stomatognathic Physiology II (pathofunction), 3,1 - 4,2 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opettajat:** Raustia, Aune Maritta

**Opintokohteen kielet:** Finnish

**Language of instruction:**

Finnish

**Timing:**

2nd year Spring term, 3rd year Autumn term

**Contents:**

The concept of pathofunction of the masticatory system; epidemiology, etiology, diagnosis and treatment of temporomandibular disorders (TMD); examination of a patient: radiological diagnosis, differential diagnosis and treatment procedures.

**Learning activities and teaching methods:**

lectures, seminars/small groups, demonstrations, self-access learning

**Recommended or required reading:**

lecture handout material, Jeffrey P. Okeson: Management of Temporomandibular Disorders and Occlusion, Mosby (5th edition 2003, 6th edition 2008)

**Assessment methods and criteria:**

written exam

**Grading:**

scale 0-5

**Person responsible:**

Professor Aune Raustia, Ritva Näpänkangas

**090504A-03: Stomatognathic Physiology III, 0,5 op****Opiskelumuoto:** Intermediate Studies**Laji:** Partial credit**Vastuuyksikkö:** Institute of Dentistry**Arvostelu:** 1 - 5, pass, fail**Opettajat:** Raustia, Aune Maritta**Opintokohteen kielet:** Finnish**Language of instruction:**

Finnish

**Timing:**

4th year, Autumn term

**Learning outcomes:**

To recognize and diagnose the signs and symptoms of temporomandibular disorders (TMD). To know and perform the conventional treatment methods used in management of TMD. Especially in cases without treatment outcome to diagnose the patients needing special care for differential diagnosis and treatment.

**Grading:**

Pass/fail

**Person responsible:**

Professor Aune Raustia

**090602S-01: Study plan, 4 op****Opiskelumuoto:** Advanced Studies**Laji:** Partial credit**Vastuuyksikkö:** Institute of Dentistry**Arvostelu:** 1 - 5, pass, fail**Opintokohteen kielet:** Finnish**090502A-10: Syndromes in the Head and Maxillofacial Region, 0,7 op****Opiskelumuoto:** Intermediate Studies**Laji:** Partial credit**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

**Language of instruction:**

Finnish

**Timing:**

5th year Autumn/Spring term

**Learning outcomes:**

To give the student further understanding about cleft-lip-palate and other developmental syndromes in craniofacial area. To give the student further understanding about other special problems such as sleep apnea, implantology or tissue transplants.

**Contents:**

- cleft-lip plate syndrome
- surgical treatment of sleep apnea
- tissue transplants
- other subjects

**Learning activities and teaching methods:**

lectures

**Grading:**

Pass/fail

## **090602S: Thesis, 20 op**

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

## **090602S-02: Thesis, 16 - 20 op**

**Opiskelumuoto:** Advanced Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

## **090201A: Tooth Morphology, 1,6 - 2 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Institute of Dentistry

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

**Language of instruction:**

Finnish

**Timing:**

1st year Spring term, Subject studies

**Learning outcomes:**

Basic understanding of macroanatomy and morphology of teeth

**Learning activities and teaching methods:**

lectures, individual studies

**Assessment methods and criteria:**

written exam; tooth identification exam

**Grading:**

Pass/fail

**Other information:**

Preclinical Strand