

# Opasraportti

## LTK - Dentistry (2013 - 2014)

### 1. INSTITUTE OF DENTISTRY

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

The Institute of Dentistry at Oulu University is one of the four 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

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#### Programme director

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#### 1.2. Research areas

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

- [Community Dentistry](#) (Professor Jorma Virtanen)
- [Diagnostics and Oral Medicine](#) (Professor Tuula Salo)
- [Oral development and Orthodontics](#) (Professor Pertti Pirttiniemi)
- [Oral and Maxillofacial Surgery](#) (Professor Kyösti Oikarinen)
- Pedodontics, Cariology and Endodontology (Professor Leo Tjäderhane)
- [Periodontology and Geriatric Dentistry](#) (Professor Tellervo Tervonen)
- 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. Recognition is the prerequisite for working as a private practitioner and for applying for posts and duties in the field of dentistry in Finland. More information: [http://www.valvira.fi/en/licensing/professional\\_practice\\_rights](http://www.valvira.fi/en/licensing/professional_practice_rights)

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 subjects in Dentistry have been integrated and taught together in so called strands.

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 mainly at the facilities of the Institute of Dentistry for a three year period. Clinical phase comprises of theoretical studies in Dentistry and Medicine, practice in phantom laboratory, clinical demonstrations, group work and actual clinical practice in the Teaching health center, City of Oulu and the Clinic of dental and oral diseases, University hospital of Oulu. 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 textbooks used in the curriculum of the High Schools and their obligatory and specialization courses in biology, physics and chemistry and the material offered in the entrance examination. The language of the entrance examination is Finnish or Swedish.

## 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

## 2.4. 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.

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

### Structure of the Degree Programme

The degree programme is divided into six sections:

General studies (G) 14,5 ECTS

Language studies (L) 6 ECTS

Basic- (B), Subject- (S) and Advanced studies (A) 239,5 ECTS

Practical training (T) 40 + 30 ECTS

|                                       | <b>Year 3</b><br><b>(1st Clinical year)</b> | <b>Year 4</b><br><b>(2nd Clinical year)</b> | <b>Year 5</b><br><b>(3rd Clinical year)</b> | <b>Year 6</b><br><b>(4th Clinical year)</b> |
|---------------------------------------|---|---|---|---|
| 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 | 53,6  | 39,7  | 49,9  | 0   |
| Practical training (T)                | 7   | 19  | 14  | 30  |
| <b>ECTS credits</b>                   | <b>60,6</b>                                 | <b>58,7</b>                                 | <b>63,9</b>                                 | <b>30</b>                                   |

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.

## 2.6. 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).

## 2.7. 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 subject. 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

090603S: Advanced Practical Training DC11, 30 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

090507A: Clinical Pharmacology, 1,5 op

090603A: Clinical Training, 34 - 40 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 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

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

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  
 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  
 090508A: Otorhinolaryngology, 0,5 op  
 090202A: Paediatrics, 0,5 - 1,8 op  
 090603Y: Patient seminar, 0 op  
 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  
 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  
 090404A: Psychiatry, 0,4 - 0,5 op  
 090304A: Radiation Safety, 2,1 op  
 090304A-01: Radiation Safety, Part 1, 1,5 op  
 090304A-02: Radiation Safety, Part 2, 0,6 op  
 090510A-06: Rehabilitation of Occlusion, 0,4 op

090503A-03: Removable Partial Dentures, 2 - 2,5 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  
 090602S: Thesis, 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

**Opinto-kohteen kielet:** Finnish

**ECTS Credits:**

0,4 ECTS credits

**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:**

Basic items of adult orthodontics

**Mode of delivery:**

Lectures

**Learning activities and teaching methods:**

Lectures 4 hours

**Target group:**

All 3rd year dental students

**Prerequisites and co-requisites:**

Earlier courses in orthodontics and terminology

**Recommended optional programme components:**

Oral rehabilitation

090601A Oral Development and Orthodontics

**Recommended or required reading:**

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

**Assessment methods and criteria:**

Oral rehabilitation exam

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes a numerical grading scale 1-5. In the numerical scale zero stands for a fail.

**Person responsible:**

Senior Lecturer Tuomo Heikkinen

**Working life cooperation:**

No

**Other information:**

-

**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

**ECTS Credits:**

30 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

6th year, Autumn term

**Target group:**

Dental students

**Recommended optional programme components:**

-

**Assessment methods and criteria:**

Read more about [assessment criteria](#) at the University of Oulu webpage.

**090403A: Anaesthesiology, 1 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Institute of Dentistry

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

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

1 ECTS credit

**Language of instruction:**

Finnish

**Timing:**

DC8

**Learning outcomes:**

The aim is to get understanding in different types of anesthesia and handling of emergency situations

**Contents:**

different modes of anesthetic emergency situations, cannulation

**Mode of delivery:**

lectures, practical exercises

**Learning activities and teaching methods:**

lectures and practical exercises (12 h)

**Target group:**

4th year dental students

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

No

**Recommended or required reading:**

Lecture materials

Contemporary Oral and Maxillofacial Surgery/Editors: James R. Hupp, Edward Ellis, Myron R. Tucker. 5th ed. Mosby 2008. Chapter 2

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

**Assessment methods and criteria:**

presence

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

approved/disapproved

**Person responsible:**

Prof. Seppo Alahuhta

**Working life cooperation:**

-

**Other information:**

-

**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

**Opettajat:** Niskanen, Leena Marita

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

1,1 ECTS credits

**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

**Mode of delivery:**

Face-to-face teaching, independent study

**Learning activities and teaching methods:**

lectures, group works, independent study

**Target group:**

4th year dental students

**Prerequisites and co-requisites:**

No prerequisites or co-requisites

**Recommended optional programme components:**

-

**Recommended or required reading:**

materials delivered in the course

**Assessment methods and criteria:**

learning assignment

Read more about [assessment criteria](#) at the University of Oulu webpage.



**Grading:**

The course unit utilizes verbal grading scale pass/fail.

**Person responsible:**

Professor Jorma Virtanen

**Working life cooperation:**

No

**Other information:**

Basic Skills in Dentistry 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

**Opettajat:** Niskanen, Leena Marita

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

1,1 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

3rd study 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

**Mode of delivery:**

Face-to-face teaching

**Learning activities and teaching methods:**

lectures, practical exercises, group work, individual studies

**Target group:**

3rd year dental students

**Prerequisites and co-requisites:**

No

**Recommended optional programme components:**

-

**Recommended or required reading:**

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

**Assessment methods and criteria:**

learning assignment

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes verbal grading scale pass/fail.

**Person responsible:**

Professor Jorma Virtanen

**Working life cooperation:**

No

**Other information:**

Basic Skills in Dentistry Strand

## **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

**ECTS Credits:**

6,7 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

3rd study year, Autumn - Spring term. The preclinical studies have to be passed before the course.

**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.

**Mode of delivery:**

Lectures, seminars, hand-on course, demonstrations

**Learning activities and teaching methods:**

Lectures, seminars, hand-on course, demonstrations 6,7 ECTS credits

**Target group:**

3rd year dental students

**Prerequisites and co-requisites:**

All DC1-DC4 studies, all obligatory studies

**Recommended optional programme components:**

090601A Oral Development and Orthodontics

**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:**

Mandatory attending in hand-on course, all group works, passing of essay examination

The course is included in the final examination of oral development and orthodontics (090601A-00)

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

Pass/fail in hands-on course, Essay examination 1-5

**Person responsible:**

Professor Pertti Pirttiniemi

**Working life cooperation:**

Yes

**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

**ECTS Credits:**

5,2 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

3rd study 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

**Mode of delivery:**

lectures, practical exercises, individual studies

**Learning activities and teaching methods:**

lectures, practical exercises, individual studies

**Target group:**

3rd year dental students

**Prerequisites and co-requisites:**

To pass the entrance examination

**Recommended optional programme components:**

-

**Recommended or required reading:**

Carranza's Clinical Periodontology

**Assessment methods and criteria:**

written course examination

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes a numerical grading scale 1-5. In the numerical scale zero stands for a fail.

**Person responsible:**

Professor Tellervo Tervonen and Senior Lecturer Hilikka Pernu

**Working life cooperation:**

-

**Other information:**

-

## 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

**ECTS Credits:**

5 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

2nd study year Spring term, 3rd study 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.

**Mode of delivery:**

Face-to-face: lectures, group assignments

**Learning activities and teaching methods:**

Lectures 34 h representing 68 h of learning

Literature representing 20 h of learning

**Target group:**

2nd and 3rd year dental students. Compulsory to all dental students.

**Prerequisites and co-requisites:**

090501A-001 Preliminary examination, cariology

**Recommended optional programme components:**

No alternative course units. Part of the course (1,5 credits) will be given in Preclinical strand and the rest (1,8 credits) in Basic Practical Skills

**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).

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes a numerical grading scale 1-5. In the numerical scale zero stands for a fail.

**Person responsible:**

Professor Leo Tjäderhane

**Working life cooperation:**

Yes. Clinical phase practice integrated into the Dental Trainig Clinic, City of Oulu.

**Other information:**

**090501A Preventive Dentistry and Cariology**

Details of the activities and teaching methods and possible compulsory attendance will be agreed in the beginning of the respective courses.

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

**ECTS Credits:**

1,6 ECTS credits

**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.

**Mode of delivery:**

Face-to-face: lectures

**Learning activities and teaching methods:**

Lectures 16 h representing 32 h of learning, literature representing 14 h learning

**Target group:**

5th year dental students. Compulsory to all dental students.

**Recommended optional programme components:**

No alternative course units. Dental and Oral Diseases and General Health Strand

**Recommended or required reading:**

Luentomoniste; luentojen yhteydessä jaettava oheismateriaali

Fejerskov O, Kidd E. Dental Caries. The Disease and its Management. 2nd Ed.

- Part III Dental caries in a biological context

o Chapter 13 Erosion of the teeth, ss. 234-246 (13 s.)

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

**Assessment methods and criteria:**

written exam

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes verbal grading scale pass/fail.

**Person responsible:**

Professor Leo Tjäderhane

**Working life cooperation:**

Yes. Clinical phase practice integrated into the Dental Training Clinic, City of Oulu.

**Other information:****090501A Preventive Dentistry and Cariology**

Details of the activities and teaching methods and possible compulsory attendance will be agreed in the beginning of the respective courses.

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).

**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 ECTS credits

**Language of instruction:**

**Finnish**

**Timing:**

The course unit is held in the autumn semester. It is recommended to complete the course during the 5th year of the studies (DC9).

**Learning outcomes:**

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

**Contents:**

Factors affecting drug selection, dosage and therapy will be discussed applying knowledge of basic pharmacology. Individualized therapy, major classes of drugs used by dentist and special treatment situations will also be discussed.

**Mode of delivery:**

The tuition will be implemented as face-to-face teaching.

**Learning activities and teaching methods:**

Thematic seminars 8h, preparation of patient cases and patient case seminars.

**Target group:**

5th year dental students

**Prerequisites and co-requisites:**

The required prerequisite is the completion of Pharmacology and Toxicology course (040106A).

**Recommended optional programme components:**

Oral Diseases and Health Strand

**Recommended or required reading:**

Materials of thematic seminars. Applicable parts of textbook "Kliininen farmakologian ja lääkehoito (Kandidaattikustannus 2011)".

**Assessment methods and criteria:**

Participation in thematic and patient case seminars.

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

Pass/fail

**Working life cooperation:**

No

**090603A: Clinical Training, 34 - 40 op**

**Opiskelumuoto:** Intermediate Studies

**Laji:** Practical training

**Vastuuyksikkö:** Institute of Dentistry

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

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

students who have started in 2011: 40,0 credits

students who have started in 2010: 38,5 credits

students who have started in 2009: 36,5 credits

students who have started in 2008: 36,5 credits

students who have started in 2007: 36,5 credits

**Language of instruction:**

Finnish

**Timing:**

3rd-5th study year (DC5-DC10)

**Learning outcomes:**

Look at "Contents"; clinical assessment -> [Kliinisen arvioinnin kriteerit](#) (kliininen lukukausikohtainen arviointi, kliininen tilannekohtainen arviointi, **kliiniset oppimistavoitteet oppialoitain**).

**Contents:****Clinical training**

The clinical training comprises work at the City of Oulu / Dental Training Clinic in collaboration with the University Hospital of Oulu. The clinical training is part of the studies beginning the end of the fifth semester and continuing to the end of the tenth semester until the credit points are full and the practical training will be approved. Before the clinical training the theoretical preclinical studies, course of internal medicine and the courses of the fifth semester have to be approved.

The clinical training consists of comprehensive patient care under supervision of the clinical teachers in different subjects of dentistry such as clinical radiology and diagnostics, treatment planning, oral and jaw surgery, orthodontics, cariology, endodontics, pedodontics, periodontology and prosthetic dentistry. The clinical training includes also on-duty service in different fields of dentistry.

Clinical training includes practice in preventive dentistry and team work in Health Centers. During the sixth semester students go to the primary schools to work for health prevention in groups. During the fourth semester students participate in oral inspections for pre-school children performed by dental hygienists.

**Mode of delivery:**

Look at "Contents"

**Learning activities and teaching methods:**

Look at "Contents"

**Target group:**

3rd-5th year dental students

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

-

**Recommended or required reading:**

-

**Assessment methods and criteria:**

Look at "Contents"; clinical assessment

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes verbal grading scale pass/fail.

Look at "Contents"; clinical assessment

**Person responsible:**

Senior researcher Raija Lähdesmäki (Raija.Lahdesmaki at oulu.fi), Päivi Harju (Paivi.B.Harju at ouka.fi)

**Working life cooperation:**

Yes. Look at "Contents"; clinical assessment -> [Kliinisen arvioinnin kriteerit](#) (kliininen lukukausikohtainen arviointi, kliininen tilannekohtainen arviointi, **kliiniset oppimistavoitteet oppialoitain**).

**Other information:**

-

## 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

**ECTS Credits:**

6 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

5th year, Spring term

**Learning outcomes:**

Look at "Contents"; clinical assessment

**Contents:**

**Clinical training**

The clinical training comprises work at the City of Oulu / Dental Training Clinic in collaboration with the University Hospital of Oulu. The clinical training is part of the studies beginning the end of the fifth semester and continuing to the end of the tenth semester until the credit points are full and the practical training will be approved. Before the clinical training the theoretical preclinical studies, course of internal medicine and the courses of the fifth semester have to be approved.

The clinical training consists of comprehensive patient care under supervision of the clinical teachers in different subjects of dentistry such as clinical radiology and diagnostics, treatment planning, oral and jaw surgery, orthodontics, cariology, endodontics, pedodontics, periodontology and prosthetic dentistry. The clinical training includes also on-duty service in different fields of dentistry.

Clinical training includes practice in preventive dentistry and team work in Health Centers. During the sixth semester students go to the primary schools to work for health prevention in groups. During the fourth semester students participate in oral inspections for pre-school children performed by dental hygienists.

**Mode of delivery:**

Look at "Contents"

**Learning activities and teaching methods:**

Look at "Contents"

**Target group:**

5th year dental students



**Prerequisites and co-requisites:**

Clinical training DC5-DC9

**Recommended optional programme components:**

-

**Recommended or required reading:**

-

**Assessment methods and criteria:**

Look at "Contents"; clinical assessment

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

Look at "Contents"; clinical assessment

The course unit utilizes verbal grading scale pass/fail.

**Person responsible:**

Senior researcher Raija Lähdesmäki (Raija.Lahdesmaki at oulu.fi), Päivi Harju (Paivi.B.Harju at ouka.fi)

**Working life cooperation:**

Yes. Look at "Contents".

**Other information:**

-

**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

**ECTS Credits:**

1 ECTS credit

**Language of instruction:**

Finnish

**Timing:**

3rd study year, Autumn term (DC5)

**Learning outcomes:**

Look at "Contents"; clinical assessment

**Contents:****Clinical training**

The clinical training comprises work at the City of Oulu / Dental Training Clinic in collaboration with the University Hospital of Oulu. The clinical training is part of the studies beginning the end of the fifth semester and continuing to the end of the tenth semester until the credit points are full and the practical training will be approved. Before the clinical training the theoretical preclinical studies, course of internal medicine and the courses of the fifth semester have to be approved.

The clinical training consists of comprehensive patient care under supervision of the clinical teachers in different subjects of dentistry such as clinical radiology and diagnostics, treatment planning, oral and jaw surgery, orthodontics, cariology, endodontics, pedodontics, periodontology and prosthetic dentistry. The clinical training includes also on-duty service in different fields of dentistry.

Clinical training includes practice in preventive dentistry and team work in Health Centers. During the sixth semester students go to the primary schools to work for health prevention in groups. During the fourth semester students participate in oral inspections for pre-school children performed by dental hygienists.

**Mode of delivery:**

Look at "Contents"

**Learning activities and teaching methods:**

Look at "Contents"

**Target group:**

3rd year dental students

**Prerequisites and co-requisites:**

Theoretical preclinical studies (1st and 2nd year studies) and the courses of fifth semester (3rd year, Autumn term)

**Recommended optional programme components:**

-

**Recommended or required reading:**

-



**Assessment methods and criteria:**

Look at "Contents"; clinical assessment

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

Look at "Contents"; clinical assessment

The course unit utilizes verbal grading scale pass/fail.

**Person responsible:**

Senior researcher Raija Lähdesmäki (Raija.Lahdesmaki at oulu.fi), Päivi Harju (Paivi.B.Harju at ouka.fi)

**Working life cooperation:**

Yes. Look at "Contents".

**Other information:**

-

**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

**ECTS Credits:**

6 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

3rd study year, Spring term

**Learning outcomes:**

Look at "Contents"; clinical assessment

**Contents:****Clinical training**

The clinical training comprises work at the City of Oulu / Dental Training Clinic in collaboration with the University Hospital of Oulu. The clinical training is part of the studies beginning the end of the fifth semester and continuing to the end of the tenth semester until the credit points are full and the practical training will be approved. Before the clinical training the theoretical preclinical studies, course of internal medicine and the courses of the fifth semester have to be approved.

The clinical training consists of comprehensive patient care under supervision of the clinical teachers in different subjects of dentistry such as clinical radiology and diagnostics, treatment planning, oral and jaw surgery, orthodontics, cariology, endodontics, pedodontics, periodontology and prosthetic dentistry. The clinical training includes also on-duty service in different fields of dentistry.

Clinical training includes practice in preventive dentistry and team work in Health Centers. During the sixth semester students go to the primary schools to work for health prevention in groups. During the fourth semester students participate in oral inspections for pre-school children performed by dental hygienists.

**Mode of delivery:**

Look at "Contents"

**Learning activities and teaching methods:**

Look at "Contents"

**Target group:**

3rd year dental students

**Prerequisites and co-requisites:**

Theoretical preclinical studies (1st and 2nd year studies) and courses of the 5th semester

**Recommended optional programme components:**

-

**Recommended or required reading:**

-

**Assessment methods and criteria:**

Look at "Contents"; clinical assessment

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

Look at "Contents"; clinical assessment

The course unit utilizes verbal grading scale pass/fail.

**Person responsible:**

Senior researcher Raija Lähdesmäki (Raija.Lahdesmaki at oulu.fi), Päivi Harju (Paivi.B.Harju at ouka.fi)

**Working life cooperation:**

Yes. Look at "Contents".

**Other information:**

-

**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

**ECTS Credits:**

8 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

4th study year, Autumn term

**Learning outcomes:**

Look at "Contents"; clinical assessment

**Contents:****Clinical training**

The clinical training comprises work at the City of Oulu / Dental Training Clinic in collaboration with the University Hospital of Oulu. The clinical training is part of the studies beginning the end of the fifth semester and continuing to the end of the tenth semester until the credit points are full and the practical training will be approved. Before the clinical training the theoretical preclinical studies, course of internal medicine and the courses of the fifth semester have to be approved.

The clinical training consists of comprehensive patient care under supervision of the clinical teachers in different subjects of dentistry such as clinical radiology and diagnostics, treatment planning, oral and jaw surgery, orthodontics, cariology, endodontics, pedodontics, periodontology and prosthetic dentistry. The clinical training includes also on-duty service in different fields of dentistry.

Clinical training includes practice in preventive dentistry and team work in Health Centers. During the sixth semester students go to the primary schools to work for health prevention in groups. During the fourth semester students participate in oral inspections for pre-school children performed by dental hygienists.

**Mode of delivery:**

Look at "Contents".

**Learning activities and teaching methods:**

Look at "Contents".

**Target group:**

4th year dental students

**Prerequisites and co-requisites:**

Look at "Contents".

**Recommended optional programme components:**

-

**Recommended or required reading:**

-

**Assessment methods and criteria:**

Look at "Contents"; clinical assessment

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

Look at "Contents"; clinical assessment.

The course unit utilizes verbal grading scale pass/fail.

**Person responsible:**

Senior researcher Raija Lähdesmäki (Raija.Lahdesmaki at oulu.fi), Päivi Harju (Paivi.B.Harju at ouka.fi)

**Working life cooperation:**

Yes. Look at "Contents".

**Other information:**

-

## 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

**ECTS Credits:**

11 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

4th year, Spring term

**Learning outcomes:**

Look at "Contents"; clinical assessment

**Contents:**

**Clinical training**

The clinical training comprises work at the City of Oulu / Dental Training Clinic in collaboration with the University Hospital of Oulu. The clinical training is part of the studies beginning the end of the fifth semester and continuing to the end of the tenth semester until the credit points are full and the practical training will be approved. Before the clinical training the theoretical preclinical studies, course of internal medicine and the courses of the fifth semester have to be approved.

The clinical training consists of comprehensive patient care under supervision of the clinical teachers in different subjects of dentistry such as clinical radiology and diagnostics, treatment planning, oral and jaw surgery, orthodontics, cariology, endodontics, pedodontics, periodontology and prosthetic dentistry. The clinical training includes also on-duty service in different fields of dentistry.

Clinical training includes practice in preventive dentistry and team work in Health Centers. During the sixth semester students go to the primary schools to work for health prevention in groups. During the fourth semester students participate in oral inspections for pre-school children performed by dental hygienists.

**Mode of delivery:**

Look at "Contents"

**Learning activities and teaching methods:**

Look at "Contents"

**Target group:**

4th year dental students

**Prerequisites and co-requisites:**

Clinical training DC5-DC7

**Recommended optional programme components:**

-

**Recommended or required reading:**

-

**Assessment methods and criteria:**

Look at "Contents"; clinical assessment

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

Look at "Contents"; clinical assessment.

The course unit utilizes verbal grading scale pass/fail.

**Person responsible:**

Senior researcher Raija Lähdesmäki (Raija.Lahdesmaki at oulu.fi), Päivi Harju (Paivi.B.Harju at ouka.fi)

**Working life cooperation:**

Yes. Look at "Contents".

**Other information:**

-

## 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

**ECTS Credits:**

8 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

5th year, Autumn term

**Learning outcomes:**

Look at "Contents"; clinical assessment

**Contents:**

**Clinical training**

The clinical training comprises work at the City of Oulu / Dental Training Clinic in collaboration with the University Hospital of Oulu. The clinical training is part of the studies beginning the end of the fifth semester and continuing to the end of the tenth semester until the credit points are full and the practical training will be approved. Before the clinical training the theoretical preclinical studies, course of internal medicine and the courses of the fifth semester have to be approved.

The clinical training consists of comprehensive patient care under supervision of the clinical teachers in different subjects of dentistry such as clinical radiology and diagnostics, treatment planning, oral and jaw surgery, orthodontics, cariology, endodontics, pedodontics, periodontology and prosthetic dentistry. The clinical training includes also on-duty service in different fields of dentistry.

Clinical training includes practice in preventive dentistry and team work in Health Centers. During the sixth semester students go to the primary schools to work for health prevention in groups. During the fourth semester students participate in oral inspections for pre-school children performed by dental hygienists.

**Mode of delivery:**

Look at "Contents"

**Learning activities and teaching methods:**

Look at "Contents"

**Target group:**

5th year dental students

**Prerequisites and co-requisites:**

Clinical training DC5-DC8

**Recommended optional programme components:**

-

**Recommended or required reading:**

-

**Assessment methods and criteria:**

Look at "Contents"; clinical assessment

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

Look at "Contents"; clinical assessment

The course unit utilizes verbal grading scale pass/fail.

**Person responsible:**

Senior researcher Raija Lähdesmäki (Raija.Lahdesmaki at oulu.fi), Päivi Harju (Paivi.B.Harju at ouka.fi)

**Working life cooperation:**

Yes. Look at "Contents"

**Other information:**

-

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

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Institute of Dentistry

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

**Opettajat:** Jorma Virtanen

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

7 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

1st study year - 5th study 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

**Target group:**

Dental students

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

-

**Assessment methods and criteria:**Read more about [assessment criteria](#) at the University of Oulu webpage.**Person responsible:**

Professor Jorma Virtanen

**Working life cooperation:**

-

**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**ECTS Credits:**

3,4 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

4th year, Autumn 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, immediate dentures

**Mode of delivery:**

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

**Learning activities and teaching methods:**

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

**Target group:**

4th year dental students

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

-

**Recommended or required reading:**

lecture handout material

Molin Thorén Margareta, Gunne Johan (eds.) Textbook of removable prosthodontics - the Scandinavian approach. Munksgaard Danmark 2012, pages 19-168, 225-236

RM Basker and JC Davenport: Prosthetic Treatment of the Edentulous Patient. Blackwell Munksgaard, 2002 Fourth Edition

**Assessment methods and criteria:**

written exam

Read more about [assessment criteria](#) at the University of Oulu webpage.**Grading:**

scale 0-5

**Person responsible:**

Senior Lecturer Erkki Hujanen

**Working life cooperation:**

-

**Other information:**

-

**090510A-08: Controlling Oral Diseases among Populations; Evidence-based Dentistry, 0,8 - 1 op****Opiskelumuoto:** Intermediate Studies**Laji:** Partial credit**Vastuuyksikkö:** Institute of Dentistry**Arvostelu:** 1 - 5, pass, fail**Opettajat:** Jorma Virtanen**Opintokohteen kielet:** Finnish**ECTS Credits:**

1 ECTS credit

**Language of instruction:**

Finnish

**Timing:**

4th year Autumn/Spring term, Subject studies

**Learning outcomes:**

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

**Contents:**

See learning outcomes of the course

**Mode of delivery:**

Face-to-face teaching

**Learning activities and teaching methods:**

lectures, group work, individual studies

**Target group:**

4th year dental students

**Prerequisites and co-requisites:**

No

**Recommended optional programme components:**

-

**Recommended or required reading:**

materials delivered in the course

**Assessment methods and criteria:**

learning assignment

Read more about [assessment criteria](#) at the University of Oulu webpage.**Grading:**

The course unit utilizes verbal grading scale pass/fail.

**Person responsible:**

Professor Jorma Virtanen

**Working life cooperation:**

No

## 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

**Opettajat:** Jorma Virtanen

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

3 ECTS credits

**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, health care economics or insurance medicine.

**Contents:**

See learning outcomes of the course

**Mode of delivery:**

Face-to-face teaching

**Learning activities and teaching methods:**

lectures, group works, individual studies

**Target group:**

5th year dental students

**Prerequisites and co-requisites:**

No

**Recommended optional programme components:**

-

**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

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes verbal grading scale pass/fail, final exam on scale 1-5.

**Person responsible:**

Professor Jorma Virtanen

**Working life cooperation:**

No

**Other information:**

Basic 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

**ECTS Credits:**

1,5 ECTS credits

**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

**Mode of delivery:**

lectures, demonstrations, individual studies

**Learning activities and teaching methods:**

lectures, demonstrations, individual studies

**Target group:**

3rd year dental students

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

-

**Recommended or required reading:**

Lecture handout material,

O'Brien WJ. Dental materials and their selection. 4<sup>th</sup> ed. Quintessence Publishing Co 2008. ss 1-24

**Assessment methods and criteria:**

written exam

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

scale 0-5

**Person responsible:**

Senior Lecturer Ritva Näpänkangas (at) oulu.fi

**Working life cooperation:**

-

**Other information:**

-

## 090506A: Dental Radiology, 7 - 7,3 op

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Institute of Dentistry

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

**Opintokohteen kielet:** Finnish

**Language of instruction:**

Finnish

**Timing:**

1st - 5th study year

**Target group:**

1st - 5th year dental students

**Assessment methods and criteria:**

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course units of Dental Radiology utilizes a numerical grading scale 1-5. In the numerical scale zero stands for a fail.

**Other information:**

-

## 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

**ECTS Credits:**

1,4 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

4th year Spring term, Subject studies

**Learning outcomes:**

At the completion of this course the student must be familiar with the first aid and treatment principles of dental traumas and maxillofacial traumas. The student must be able to perform dental splinting of traumatized teeth.

**Contents:**

- dental trauma
- maxillofacial trauma
- maxillofacial pain

**Mode of delivery:**

lectures, practical studies

**Learning activities and teaching methods:**

lectures, practical studies

**Target group:**

4th year dental students

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

090502A Oral and Maxillofacial Surgery

090506A-04 Injuries of the Teeth, Jaws and Face

**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. et al. Traumatic dental injuries. A manual. Munksgaard, latest edition

**Assessment methods and criteria:**

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

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes a numerical grading scale 1-5. In the numerical scale zero stands for a fail.

**Person responsible:**

Professor Kyösti Oikarinen

**Working life cooperation:**

work placement is performed as an integrated part of clinical teaching.

**Other information:**

-

## 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

**ECTS Credits:**

2,4 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

4th study 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

**Mode of delivery:**

Luennot. Harjoittelu dissekoidulla sianpäällä yhdessä parodontologian opetuksen kanssa.

**Learning activities and teaching methods:**

Luennot. Harjoittelu dissekoidulla sianpäällä yhdessä parodontologian opetuksen kanssa.

**Target group:**

4th year dental students

**Prerequisites and co-requisites:**

Accepted course in principles of oral and maxillofacial surgery (090502A-01) is a prerequisite for this course.

**Recommended optional programme components:**

090502A Oral and Maxillofacial Surgery

Written exam together with courses

090505A-03 Periodontal Surgery and

090506A-03 Roentgenographic Studies for Surgical Purposes

**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

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes a numerical grading scale 1-5. In the numerical scale zero stands for a fail.

**Person responsible:**

Senior Lecturer Antti Raunio

**Working life cooperation:**

Work placement period is performed as a part of clinical training and clinical teaching in clinical teaching units.

**Other information:**

-

**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

**ECTS Credits:**

0,9 ECTS credits

**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

**Mode of delivery:**

lectures

**Learning activities and teaching methods:**

lectures

**Target group:**

4th year dental students

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

-

**Recommended or required reading:**

lecture handout material

**Assessment methods and criteria:**

full-time participation needed

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

Pass/fail

**Person responsible:**

Senior Lecturer Erkki Hujanen (at) oulu.fi, Senior Lecturer Ritva Näpänkangas (at) oulu.fi, Senior Lecturer Ritva Kuoppala (at) oulu.fi

**Working life cooperation:**

-

**Other information:**

-

## 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

**ECTS Credits:**

0,4 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

DC7, Intermediate studies

**Learning outcomes:**

After the course the student is able to recognize the most common dermatological and venereological diseases relating to oral and dental diseases. He is able to adapt his work and/or redirect the patient to appropriate care.

**Contents:**

recognize the most common dermatological and venereological diseases, diagnostic methods in allergology

**Mode of delivery:**

face-to-face teaching

**Learning activities and teaching methods:**

lectures (6 hours)

**Target group:**

4th year dental students

**Prerequisites and co-requisites:**

no

**Recommended optional programme components:**

Oral diseases and health strand

**Recommended or required reading:**

active participation in teaching and hand-out materials

**Assessment methods and criteria:**

written examination or obligation to 100% attendance in teaching  
Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes verbal grading scale pass/fail.

**Person responsible:**

Kaisa Tasanen-Määttä

**Working life cooperation:**

No

**Other information:**

-

**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 ECTS credits

**Language of instruction:**

**Lectures in Finnish;** research projects also in English

**Timing:**

4th year, Autumn term, Subject studies

**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.

**Mode of delivery:**

lectures and seminars

**Learning activities and teaching methods:**

lectures and seminars

**Target group:**

4th year dental students

**Prerequisites and co-requisites:**

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

**Recommended optional programme components:**

090302A Oral Pathology

**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

**Assessment methods and criteria:**

written exam

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes a numerical grading scale 1-5. In the numerical scale zero stands for a fail.

**Person responsible:**

Professor Tuula Salo

**Working life cooperation:**

Clinical work in the Department of Diagnostics and Oral Medicine

**Other information:**

To obtain clinical work in the Department of Diagnostics and Oral Medicine the course of Diseases of Oral Mucosa has to be completed.

### 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

**ECTS Credits:**

0,2 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

4th study year, Spring term

**Learning outcomes:**

Upon completion of the course the student knows how to diagnose and treat endo-perio infections.

**Contents:**

Endo-perio infections: clinical picture, diagnosis and treatment.

**Mode of delivery:**

Face to face teaching

**Learning activities and teaching methods:**

Lecture

**Target group:**

4th year dental students

**Recommended or required reading:**

Carranza's Clinical Periodontology, 10th ed., pages: 871-879

**Assessment methods and criteria:**

OSCE-test

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes verbal grading scale pass/fail.

**Person responsible:**

Professor Tellervo Tervonen

**Working life cooperation:**

-

**Other information:**

-

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

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

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

**Opettajat:** Kristiina Oikarinen-Juusola

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

1,6 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

3rd study 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.

**Mode of delivery:**

Face-to-face: lectures, practical exercises, individual studies

**Learning activities and teaching methods:**

Lectures and practical exercises 18 h, literature representing 15 h of learning

**Target group:**

3rd year dental students. Compulsory to all dental students.

**Prerequisites and co-requisites:**

All previous courses

090501A-001 Preliminary exam of cariology

090501A-01 Basics in operative dentistry

090501A-02 Operative dentistry

**Recommended optional programme components:**

No alternative courses. Part of the Basic Practical Skills Strand.

**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

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes verbal grading scale pass/fail.

**Person responsible:**

Senior Research Fellow Liisa Seppä

**Working life cooperation:**

Yes. Clinical phase practice integrated into the Dental Training Clinic, City of Oulu

**Other information:**

**090501A Preventive Dentistry and Cariology**

Details of the activities and teaching methods and possible compulsory attendance will be agreed in the beginning of the respective courses.

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

**ECTS Credits:**

2,1 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

4th study year Spring term, Advanced studies

**Learning outcomes:**

To understand the complex endodontic diagnostics and treatment; to master the ethiology, 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.

**Mode of delivery:**

Face-to-face: lectures, individual studies

**Learning activities and teaching methods:**

Lectures 12 h representing 24 h of learning,

practical exercises 4 h,

literature representing 15 h learning.

**Target group:**

4th year dental students. Compulsory to all dental students.

**Recommended optional programme components:**

No alternative course units. Basic Practical Skills Strand

**Recommended or required reading:**

Luentomateriaali;

Oppikirja: Haapasalo M, Kotiranta A, Sirén E, Haapasalo H, Endal U. Käytännön juurihoito. 2. Painos, 2009. Savion Kirjapaino, 2009.

- Resorptiot, ss. 24-37 (14 s.)

- Erotusdiagnostiikka, ss. 58-67 (10 s.)

- Hoitoresistentti apikaalinen parodontiitti, ss. 172-194 (23 s.)

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

**Assessment methods and criteria:**

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes a numerical grading scale 1-5. In the numerical scale zero stands for a fail.

**Person responsible:**

Professor Leo Tjäderhane

**Other information:****090501A Preventive Dentistry and Cariology**

Details of the activities and teaching methods and possible compulsory attendance will be agreed in the beginning of the respective courses.

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

**ECTS Credits:**

1,1 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

4th year Autumn term/5th year Autumn term

**Learning outcomes:**

At the completion of the course the student is familiar with examination and treatment principles of a patient with facial pain.

**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.

**Mode of delivery:**

Lectures

**Learning activities and teaching methods:**

Lectures

**Target group:**

4th/5th year dental students

**Prerequisites and co-requisites:**

No

**Recommended optional programme components:**

No

**Recommended or required reading:**

-

**Assessment methods and criteria:**

Attendance at lectures is compulsory

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes verbal grading scale pass/fail.

**Person responsible:**

Senior Lecturer Leena Ylikontiola

**Working life cooperation:**

No

**Other information:**

-

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

**Opiskelumuoto:** Advanced Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

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

**Opettajat:** Jorma Virtanen

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

0 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

5th study 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 (3 hours)

**Target group:**

5th year dental students

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

-

**Assessment methods and criteria:**

Final Exam (3 hours)

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes a numerical grading scale 1-5. In the numerical scale zero stands for a fail.

**Person responsible:**



Professor Jorma Virtanen

**Working life cooperation:**

-

**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

**ECTS Credits:**

0 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

5th study year, Advanced studies

**Target group:**

5th year dental students

**Assessment methods and criteria:**

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes a numerical grading scale 1-5. In the numerical scale zero stands for a fail.

### **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

**ECTS Credits:**

7,8 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

5th year Autumn/Spring term

**Learning outcomes:**

Exam is aimed to test the knowledge of student regarding oral and maxillofacial surgery as is necessary for independent working as a general dentist.

**Contents:**

Required textbooks are listed separately. Exam requires also participation and good knowledge of lectures and practicalities.

**Mode of delivery:**

Final exam will last for 4 hours and is composed of 5-6 written questions. The questions cover the main topics of oral and maxillofacial surgery.

**Learning activities and teaching methods:**

Final Exam

**Target group:**

5th year dental students

**Prerequisites and co-requisites:**

In order to be eligible to participate in final exam of OMFS the student must have passed other exams of OMFS and must participated in practicalities.

**Recommended optional programme components:**

No

**Recommended or required reading:**

Therapia Odontologica: hammaslääketieteen käsikirja. Helsinki, Academica

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

Mosby 2008.

Adreasen JO ym. Traumatic dental injuries - a manual. Munksgaard, latest edition

**Assessment methods and criteria:**

Written exam, 5-6 questions

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes a numerical grading scale 1-5. In the numerical scale zero stands for a fail.

**Person responsible:**

Professor Kyösti Oikarinen

**Working life cooperation:**

No

**Other information:**

-

**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

**ECTS Credits:**

0 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

5th year Autumn/Spring term

**Learning outcomes:**

Upon completion of the final examination module, the student masters the basic knowledge of Oral development and Orthodontics. The student knows the development of normal and abnormal occlusion and the core contents of the methods in clinical diagnostics and treatment modalities in orthodontics.

**Contents:**

All the learning contents in Oral Development and Orthodontics, including the textbook and other printed or distributed material.

090601A-08 Introduction to Development of Occlusion and Orthodontics

090601A-01 Basic Orthodontic Skills

090601A-02 Growth and Development of Craniofacial Structures and Occlusion and Oral-facial Genetics

090601A-04 Adult Orthodontics

090601A-09 ORTHO-seminars

**Mode of delivery:**

Written final exam (4 hours)

**Learning activities and teaching methods:**

Written final exam (4 hours)

**Target group:**

5th year dental students

**Prerequisites and co-requisites:**

All the learning contents in Oral Development and Orthodontics, including the textbook and other printed or distributed material.

090601A-08 Introduction to Development of Occlusion and Orthodontics

090601A-01 Basic Orthodontic Skills

090601A-02 Growth and Development of Craniofacial Structures and Occlusion and Oral-facial Genetics

090601A-04 Adult Orthodontics

090601A-09 ORTHO-seminars

**Recommended optional programme components:**

-

**Recommended or required reading:**

Lecture hand-outs

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

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

Additional: H. Sariola: Solusta yksilöksi. Kehitysbiologia. Duodecim, Jyväskylä 2003, Aula, Kääriäinen, Leisti:

Perinnöllisyys-lääketiede. 2. ed. Duodecim, Jyväskylä 2002.

**Assessment methods and criteria:**

Written final exam (4 hours)

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes a numerical grading scale 1-5. In the numerical scale zero stands for a fail.

**Person responsible:**

Professor Pertti Pirttiniemi

**Working life cooperation:**

-

**Other information:**

-

## 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

**ECTS Credits:**

0 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

5th study year, Spring term

**Target group:**

5th year dental students

**Prerequisites and co-requisites:**

090505A-01 Basics in Periodontology and Periodontal Treatment

090505A-02 Special Topics in Nonsurgical Periodontal Therapy

090505A-03 Periodontal Surgery

090505A-04 Seminars of Periodontology

090505A-05 Geriatric Dentistry

090505A-06 Periodontal Diseases and General Health

090505A-08 Occlusal Rehabilitation in Periodontal Therapy

090505A-00 Preliminary examination, periodontology

090505A-13 Periodontal diseases in children

090505A-14 Endo-perio problems

**Recommended or required reading:**

Carranza's Clinical Periodontology, See the reading of separate courses

**Assessment methods and criteria:**

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes a numerical grading scale 1-5. In the numerical scale zero stands for a fail.

**Person responsible:**

Professor Tellervo Tervonen

**Working life cooperation:**

No

**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

**ECTS Credits:**

0 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

5th study year, Spring term

**Learning outcomes:**

See the course units of Preventive Dentistry and Cariology:

090501A-001 Preliminary examination, cariology

090501A-00 Final exam, Preventive dentistry and cariology

090501A-01 Basics in operative dentistry

090501A-02 Operative dentistry

090501A-03 Endodontics I

090501A-05 Endodontics II

090501A-07 Pedodontics

**Contents:**

See the course units of Preventive Dentistry and Cariology:

090501A-001 Preliminary examination, cariology

090501A-00 Final exam, Preventive dentistry and cariology

090501A-01 Basics in operative dentistry

090501A-02 Operative dentistry

090501A-03 Endodontics I

090501A-05 Endodontics II

090501A-07 Pedodontics

**Mode of delivery:**

Final exam 4 hours

**Learning activities and teaching methods:**

Final exam 4 hours

**Target group:**

5th year dental students. Compulsory to all dental students.

**Prerequisites and co-requisites:**

See the course units of Preventive Dentistry and Cariology:

090501A-001 Preliminary examination, cariology

090501A-00 Final exam, Preventive dentistry and cariology

090501A-01 Basics in operative dentistry

090501A-02 Operative dentistry

090501A-03 Endodontics I

090501A-05 Endodontics II

090501A-07 Pedodontics

**Recommended optional programme components:**

See the course units of Preventive Dentistry and Cariology:

090501A-001 Preliminary examination, cariology  
 090501A-00 Final exam, Preventive dentistry and cariology  
 090501A-01 Basics in operative dentistry  
 090501A-02 Operative dentistry  
 090501A-03 Endodontics I  
 090501A-05 Endodontics II  
 090501A-07 Pedodontics

**Recommended or required reading:**

See the course units of Preventive Dentistry and Cariology:

090501A-001 Preliminary examination, cariology  
 090501A-00 Final exam, Preventive dentistry and cariology  
 090501A-01 Basics in operative dentistry  
 090501A-02 Operative dentistry  
 090501A-03 Endodontics I  
 090501A-05 Endodontics II  
 090501A-07 Pedodontics

**Assessment methods and criteria:**

Final exam 4 hours

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes a numerical grading scale 1-5. In the numerical scale zero stands for a fail.

**Person responsible:**

Professor Leo Tjäderhane

**Working life cooperation:**

No

**Other information:**

Details of the activities and teaching methods and possible compulsory attendance will be agreed in the beginning of the respective courses.

## **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

**Assessment methods and criteria:**

Read more about [assessment criteria](#) at the University of Oulu webpage.

## **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:**

4,5 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

3rd - 4th study year, 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:**

Indications/contraindications, Treatment planning, Principles of preparation, Metal crowns, Porcelain fused to metal, All ceramic crowns/fixed partial dentures, Resin-bonded fixed partial dentures, Gold and ceramic inlays-onlays, Impressions, Temporary crowns/bridges, Cementing, Complications/prognosis

**Mode of delivery:**

lectures, demonstrations, phantom laboratory exercises, individual studies

**Learning activities and teaching methods:**

lectures, demonstrations, phantom laboratory exercises, individual studies

**Target group:**

3rd-4th study year dental students

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

-

**Recommended or required reading:**

lecture handout material,

Shillingburg HT et al. Fundamentals of fixed prosthodontics. 4<sup>th</sup> ed. Quintessence Publishing Co 2012.

**Assessment methods and criteria:**

full-time participation (in certain lectures), phantom laboratory exercises, written exam

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

scale 0-5

**Person responsible:**

Ritva Näpänkangas, Ritva Kuoppala

**Working life cooperation:**

-

**Other information:**

-

## 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

**ECTS Credits:**

0,3 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

5th study year Autumn term (DC9)

**Learning outcomes:**

The student gets acquainted with forensic dentistry.

**Contents:**

Forensic dentistry

**Mode of delivery:**

Lectures

**Learning activities and teaching methods:**

Lectures

**Target group:**

Dental students

**Prerequisites and co-requisites:**

No

**Recommended optional programme components:**

No

**Recommended or required reading:**

No

**Assessment methods and criteria:**

Participation in the lectures

Read more about [assessment criteria](#) at the University of Oulu webpage.**Grading:**

The course unit utilizes verbal grading scale pass/fail.

**Person responsible:**

Assistant professor, docent Arja Kullaa (at) oulu.fi

**Working life cooperation:**

No

**Other information:**

-

**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**ECTS Credits:**

1,3 ECTS credits

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

4th year Spring term - 5th year Autumn term, Subject studies

**Learning outcomes:**

Upon completion of the course the student knows general traits related to aging and special features of dental diseases and dental treatment among the elderly people. The student is able to notice oral changes related to aging, to diagnose oral diseases of the elderly people, to take account the functional ability and frailty of the elderly people in planning and performing dental care and to take account the effect of aging on the medical treatment of the elderly people.

**Contents:**

Lectures (Department of Periodontology and Geriatric Dentistry):

- Theories of aging
- Demography
- Factors related to biological aging
- 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
- Theme afternoon 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)
- Surgical treatment of elderly patient (Department of Oral Surgery)

Oral mucosal diseases of the elderly people (Department of Diagnostics and Oral Medicine)

**Mode of delivery:**

The tuition will be implemented as face-to-face teaching and web-based teaching. The tuition includes also visits to sheltered home and nursing home, where dental students make oral clinical examinations to elderly people. Group working is made in web-site Optima. A log book is kept about the lectures.

**Learning activities and teaching methods:**

Face-to-face teaching, web-based teaching, group working is made on web-site, study-group working to prepare learning diary, visits to sheltered home and nursing home, Lectures 15 hours / study-group working to prepare learning diary and group working as web-site discussion 20 hours: in common 35 hours

**Target group:**

4th and 5th year dental students

**Prerequisites and co-requisites:**

It is recommended to complete course units 090505A-01,090505A-02, 090505A-03, 090505A-08 and 090505A-14

**Recommended optional programme components:**

There are no parallel courses to be performed

**Recommended or required reading:**

The literature used in the course unit consists of handouts of lectures and databases of Terveysportti. In website Optima there is also a folder including references for literature.

Carranza's Clinical Periodontology, 11. edition, pages 28-32, 422-426.

**Assessment methods and criteria:**

The course unit is completed by participation in the lecture concerning medical treatment of elderly people, participation in lectures in the theme day of geriatric dentistry, visiting the sheltered home and nursing home, where dental students make oral clinical examinations to elderly people, participating on web-discussion in Optima as group-working and making a learning-diary. Learning-diary is usually made as a study-group-working. Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes verbal grading pass/fail

**Person responsible:**

University reseacher Anna-Maija Syrjälä

**Working life cooperation:**

Yes, training in sheltered home and nursing home

**Other information:**

-

## 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

**Timing:**

1st - 6th study year (DC1-DC11)

**Learning outcomes:**

040014Y-01 Part 1: The student has knowledge of the stucture and the aim of the dental undergraduate studies. The student get acquainted with the University of Oulu and the Faculty of Medicine as an educational and scientific society.

040014Y-02 Part 2: The student is able to plan progressive learning and sketch professional identity and expertize

**Contents:**



The structure and aim of the education in dentistry (DDS); personal study plan; the University of Oulu and the Medical Faculty as a study and research community; the social network during the studies; growing as a dentist. To get familiar with the practice in the Dental training clinic by assisting a clinical student during the preclinical studies.

**Mode of delivery:**

Face-to-face teaching. Assisting a clinical student in the Dental training clinic.

**Learning activities and teaching methods:**

Lectures, infos, tutorial meetings, individual guiding

**Target group:**

1st-6th year dental students

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

-

**Recommended or required reading:**

The curriculum in Dentistry and Medical studies and general tutor of the University of Oulu

**Assessment methods and criteria:**

Active participation in tutorials and up to date personal curriculum. A prior engagement to go by and assist a clinical student during dental practice up till 10 hours (4 x 2,5 hours).

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes verbal grading scale pass/fail.

**Person responsible:**

Nominated teachers in dentistry/tutorial

**Working life cooperation:**

Yes. See 'Assessment methods and criteria'.

**Other information:**

Dentistry Guild coordinates to get know a clinical student.

## 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

**ECTS Credits:**

2 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

DC1

**Learning outcomes:**

The student has knowledge of the structure and the aim of the dental undergraduate studies. The student get acquainted with the University of Oulu and the Faculty of Medicine as an educational and scientific society.

**Contents:**

The structure and aim of the education in dentistry (DDS); personal study plan; the University of Oulu and the Faculty of Medicine as a study and research community; the social network during the studies; growing as a dentist

**Mode of delivery:**

Face-to-face teaching

**Learning activities and teaching methods:**

Lectures, infos, tutorial meetings, individual guiding

**Target group:**

1st year dental students

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

-

**Recommended or required reading:**

The curriculum in Dentistry and Medical studies and general tutor of the University of Oulu

**Assessment methods and criteria:**

Active participation in tutorials and personal curriculum

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes verbal grading scale pass/fail.

**Person responsible:**

Nominated teachers in dentistry/tutorial

**Working life cooperation:**

No

**Other information:**

Look at 040014Y

**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

**ECTS Credits:**

4,5 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

DC2-DC10

**Learning outcomes:**

A student is able to make a roadmap of his studies and realize the identity as a dentist and growing expertise.

**Contents:**

The University of Oulu and Faculty of Medicine as a study and research community; The social network during the studies; Growing as a dentist

**Mode of delivery:**

face-to-face teaching

**Learning activities and teaching methods:**

Infos, tutorial meetings

**Target group:**

1st-6th year dental students

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

-

**Recommended or required reading:**

Dentistry study plan, personal study plan

**Assessment methods and criteria:**

Active participation in teacher tutorials and regular assessment of the personal curriculum.

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes verbal grading scale pass/fail.

**Person responsible:**

Tutors in Dentistry

**Working life cooperation:**

No

**Other information:**

See 040014Y System of higher education and studying at the university

## 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

**ECTS Credits:**

2,4 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

1st, 2nd and 4th study year

**Learning outcomes:**

After passing the course, the student understands the concepts the normal growth of the craniofacial region and expands the understanding towards growth deviations. The student understand hoe the tooth develops and erupts and the occlusion is formed. Furthermore the student is aware of the possibilities and limitations in modifying occlusal development. A part of the education takes place during pre-clinical years and it is described earlier.

**Contents:**

Normal and abnormal development in craniofacial region.

Normal dental and occlusal development (see Anatomy C1).

The pathogenesis of malocclusions and the most usual orthodontic treatment of them is brought up especially from the viewpoint of growth.

The retention of orthodontic treatment and growth.

Screening in orthodontics.

The course includes the pathogenesis of the most frequent syndromes and developmental aberrations in the orofacial area and the orthodontics in cleft children.

In dental genetics the subjects are: tooth size and morphology and the characteristics od dental pulp, occlusion and oral characteristics and special features in chromosomally aberrant subjects: autosomal and sex-chromosome related aberrations.

**Mode of delivery:**

Lectures, group learning

**Learning activities and teaching methods:**

Lectures, group learning

**Target group:**

Dental students

**Prerequisites and co-requisites:**

All mandatory studies DC7-8

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

**Recommended optional programme components:**

090601A Oral Development and Orthodontics

**Recommended or required reading:**

Lecture hand-outs

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

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

Additional: H. Sariola: Solusta yksilöksi. Kehitysbiologia. Duodecim, Jyväskylä 2003, Aula, Kääriäinen, Leisti:

Perinnöllisyys-lääketiede. 2. ed. Duodecim, Jyväskylä 2002.

**Assessment methods and criteria:**

Passing of essay examination

The course is included in the final examination of oral development and orthodontics (090601A-00)

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes a numerical grading scale 1-5. In the numerical scale zero stands for a fail.

**Person responsible:**

Professor Pertti Pirttiniemi

**Working life cooperation:**

Yes

**Other information:**

The course is included in the final examination. (090601A-00)

### 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

**ECTS Credits:**

0,3 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

4th year, Autumn term

**Learning outcomes:**

When finishing the course, a student is able to

- accomplish the clinical examination of the patient eligible for immediate denture treatment in order to replace one or more teeth with immediate appliance
- to assess the need for preprosthetic preparation of the mouth entitled for immediate denture treatment
- accomplish all clinical steps in immediate denture treatment, especially in recording of jaw relationships
- assess patient`s individual treatment needs in future

**Contents:**

Immediate prosthetic rehabilitation of the mouth at the time of tooth/teeth extraction

**Mode of delivery:**

Face-to-face teaching

**Learning activities and teaching methods:**

lectures 4 hours

**Target group:**

4th year dental students

**Prerequisites and co-requisites:**

preclinical studies

**Recommended or required reading:**

lecture handout material

**Assessment methods and criteria:**

full-time participation needed

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

Pass/fail

**Person responsible:**

Senior Lecturer Erkki Hujanen

**Working life cooperation:**

No

**Other information:**

Oral Rehabilitation Strand

### 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

**ECTS Credits:**

0,4 ECTS credits

**Language of instruction:**

**Finnish****Timing:**

4th/5th study year

**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

**Mode of delivery:**

Lectures

**Learning activities and teaching methods:**

Lectures

**Target group:**

4th/5th year dental students

**Prerequisites and co-requisites:**

No

**Recommended optional programme components:**

No

**Recommended or required reading:**

-

**Assessment methods and criteria:**

Attendance at lectures is compulsory

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes verbal grading scale pass/fail.

**Person responsible:**

Department of Prosthetic Dentistry and Stomatognathic Physiology (Senior lecturer)

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

**Working life cooperation:**

No

**Other information:**

-

**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

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

0,7 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

4th study year Spring term, Advanced studies

**Learning activities and teaching methods:**

lectures

**Target group:**

4th year dental students

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

-

**Recommended or required reading:**

(Goaz & White: Oral Radiology), lecture hand out material

**Assessment methods and criteria:**

written exam

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes a numerical grading scale 1-5. In the numerical scale zero stands for a fail.

**Working life cooperation:**

-

**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

**ECTS Credits:**

0,8 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

5th year Autumn term

**Target group:**

5th year dental students

**Recommended optional programme components:**

-

**Assessment methods and criteria:**

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes verbal grading scale pass/fail.

**Working life cooperation:**

No

**Other information:**

-

**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

**Assessment methods and criteria:**

Read more about [assessment criteria](#) at the University of Oulu webpage.

**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

**ECTS Credits:**

0,5 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

1st study year, Autumn semester. It is recommended to complete the course at the beginning of studies.

**Learning outcomes:**

Student can observe normal craniofacial growth and development . Student can consider different factors effecting the development of the occlusion.

**Contents:**

The basic contents of orthodontics and the treatment of orthodontic problems.

**Mode of delivery:**

Face-to-face teaching

**Learning activities and teaching methods:**

Lectures, group work, discussion. 10 hours

**Target group:**

1st year dental students

**Prerequisites and co-requisites:**

No required studies beforehand.

**Recommended optional programme components:**

040201A Anatomy

**Recommended or required reading:**

handouts of the lectures

**Assessment methods and criteria:**

Participating the lectures

The course is included in the final examination of oral development and orthodontics (090601A-00)

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes verbal grading scale pass/fail.

**Person responsible:**

Professor Pertti Pirttiniemi

**Working life cooperation:**

No

**Other information:**

-

## 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

Ei opintojaksokuvauksia.

## **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

Ei opintojaksokuvauksia.

## **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

### **ECTS Credits:**

2 ECTS credits

### **Language of instruction:**

Finnish

### **Timing:**

5th study year, Autumn term

### **Learning outcomes:**

After the course the student knows the basics of most usual infection diseases and the principles of the diagnostics and treatment of infection diseases.

### **Contents:**

Most usual infection diseases, diagnostics and treatment modalities

### **Mode of delivery:**

Lectures

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

Lectures, learning diary

### **Target group:**

5th year dental students

### **Prerequisites and co-requisites:**

Microbiology and immunology

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

-

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

Hand-outs, articles

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

learning diary

Read more about [assessment criteria](#) at the University of Oulu webpage.

### **Grading:**

pass/fail



**Person responsible:**

Raija Lähdesmäki

**Working life cooperation:**

No

**Other information:**

-

**090205A: Neurology, 0,4 - 0,5 op****Opiskelumuoto:** Intermediate Studies**Laji:** Course**Vastuuyksikkö:** Institute of Dentistry**Arvostelu:** 1 - 5, pass, fail**Opintokohteen kielet:** Finnish**ECTS Credits:**

0,4 ECTS cr

**Language of instruction:**

Finnish

**Timing:**

DC9, Intermediate studies

**Learning outcomes:**

After the course the student has knowledge on the background and more brief examination need for the neurological symptoms of the cranial nerves and head. Student is able to consult neurologist and take into account special features with the neurological patients in dentistry.

**Contents:**

Examination of the neurological patient, neurological patient in dental office, headache, sleep disorders and most common neurological diseases

**Mode of delivery:**

face-to-face teaching

**Learning activities and teaching methods:**

lectures (6 hours)

**Target group:**

5th year dental students

**Prerequisites and co-requisites:**

No

**Recommended optional programme components:**

Oral diseases and health strand

**Recommended or required reading:**

Active participation in teaching and hand-out materials

**Assessment methods and criteria:**

obligation to 100% attendance in teaching (substitutive written essay)

Read more about [assessment criteria](#) at the University of Oulu webpage.**Grading:**

The course unit utilizes verbal grading scale pass/fail

**Person responsible:**

Clinical teacher Mikko Kärppä

**Working life cooperation:**

No

**Other information:**

-

**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****ECTS Credits:**

1.4 ECTS credits / 37 hours of work

**Language of instruction:**

**Finnish**

**Timing:**

The course unit is held in five half day seminars.

Seminar 1 is held in the autumn semester, fourth year.

Seminars 2 and 3 are held in the spring semester, fourth year.

Seminar 4 is held in the autumn semester, fifth year.

Seminar 5 is held in the spring semester, fifth year.

**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 gives a structured reflection of the learning experience in OPTIMA-learning environment and gets written tutorial feed-back and the score.

**Mode of delivery:**

The delivery for the course unit is blended teaching (independent learning + face-to-face teaching + web-based teaching)

**Learning activities and teaching methods:**

Independently prepared presentation (software e.g. Power Point) to the Seminar 1-5 (á 3 hours), patient and theoretical seminar presentations in the given group (1-5, á 4 hours) and given reflection in OPTIMA learning environment after the seminar (1-5, á 0.4 hours).

**Target group:**

4th and 5th study year (DC7-DC10), to deepen the knowledge in Orthodontic treatment

**Prerequisites and co-requisites:**

You should have passed 090601A-01 Basic Orthodontic Skills before entering yourself for the course.

**Recommended optional programme components:**

It is recommended that the course 090601A-02 Growth and Development of Craniofacial Structures and Occlusion and Oral-facial genetics is passed before the Seminars 4-5.

**Recommended or required reading:**

The documentation of the orthodontic patients in clinical teaching. Independent work with references from Medline and PubMed to make a presentation for the theoretical seminars at an appointed title.

**Assessment methods and criteria:**

Self-made presentation in seminar (1-5) and activity in discussions. After the seminar structured reflection in OPTIMA learning environment. The teacher gives written comments and the score for each seminar (1-5). Each seminar is separate entity, the order is advisory.

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes a numerical grading scale 1-5. In the numerical scale zero stands for a fail. All the seminars 1-5 will be assessed numerically and the final score is the mean in the scale 1-5. Each seminar 1-5 has to be passed independently.

**Person responsible:**

Assistant professor Raija Lähdesmäki

**Working life cooperation:**

The course unit does not have a work placement period.

**Other information:**

The strand of the Basic Skills 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

**ECTS Credits:**

0 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

Fourth year, Spring term

**Learning outcomes:**

The exam has to be passed before going to work outside the Institute of Dentistry after four year studies ( [www.valvira.fi/en/](http://www.valvira.fi/en/))

**Contents:**

Studies during the first four years

**Mode of delivery:**

Multiple-choice questions and tasks dealing with clinical problems

**Learning activities and teaching methods:**

Multiple-choice questions and tasks dealing with clinical problems

**Target group:**

4th year dental students

**Prerequisites and co-requisites:**

Studies during the first four years

**Recommended optional programme components:**

-

**Recommended or required reading:**

-

**Assessment methods and criteria:**

Multiple-choice questions and tasks dealing with clinical problems

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

Pass/fail

**Person responsible:**

Ritva Näpänkangas

**Working life cooperation:**

-

**Other information:**

The exam has to be passed before going to work outside the Institute of Dentistry after four year studies ( [www.valvira.fi/en/](http://www.valvira.fi/en/))

## 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

**ECTS Credits:**

1 ECTS credit

**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

**Target group:**

3rd year dental students

**Recommended optional programme components:**

Oral Rehabilitation Strand

**Recommended or required reading:**

Carranza's Clinical Periodontology

**Assessment methods and criteria:**

written exam (together with courses 090503A-03 Removable partial dentures, 090503A-04 Dental materials and 090601A-04 Adult orthodontics)

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes a numerical grading scale 1-5. In the numerical scale zero stands for a fail.

**Person responsible:**

Senior Lecturer Hilikka Pernu

**Other information:**

-

## 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

**ECTS Credits:**

0,6 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

4th year Spring term

**Learning outcomes:**

Opintojakson jälkeen opiskelija osaa odontogeenisten infektioiden diagnostikan ja hoitoperiaatteet, osaa inkisoida ja dreneerata hammasperäisen abscessin, ymmärtää osteomyeliitin diagnostiikkaan ja hoitoon liittyvät erityispiirteet nimenomaan suu- ja leukakirurgisen hoidon näkökulmasta.

**Contents:**

Odontogeeniset infektiot, aktinomykoosi ja osteomyeliitti, absessit (5KORV)

**Mode of delivery:**

Lectures, individual studies

**Learning activities and teaching methods:**

Lectures, individual studies

**Target group:**

4th year dental students

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

090502A Oral and Maxillofacial Surgery

090506A-02 Roentgenographic Picture of Osteomyelitis, Roentgenographic Features of the Benign and Malignant Tumors

**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:**

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

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes a numerical grading scale 1-5. In the numerical scale zero stands for a fail.

**Person responsible:**

Senior Lecturer Leena Ylikontiola

**Working life cooperation:**

Work placement is part of clinical training and clinical teaching

**Other information:**

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

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

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

**Opettajat:** Vuokko Anttonen

**Opintokohteen kielet:** Finnish

### **ECTS Credits:**

5,1 ECTS credits

### **Language of instruction:**

Finnish

### **Timing:**

3rd study 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.

### **Mode of delivery:**

Face-to-face: lectures, individual studies, practical exercises

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

Practical Phantom-exercise including integrated lectures 108 h

Practical exercise examination 6 h

Literature 20 h

### **Target group:**

3rd year dental students. Compulsory to all dental students.

### **Prerequisites and co-requisites:**

All these courses/examinations:

090501A-001 Preliminary examination, cariology

090501A-01 Basics in operative dentistry

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

No alternative course units. Practical Skills Strand

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

Material provided during the course

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

Exam

Read more about [assessment criteria](#) at the University of Oulu webpage.

### **Grading:**

The course unit utilizes verbal grading scale pass/fail.

### **Person responsible:**

Senior Research Fellow Liisa Seppä

### **Working life cooperation:**

Yes. Clinical phase practice integrated into the Dental Training Clinic, City of Oulu.

### **Other information:**

#### **090501A Preventive Dentistry and Cariology**

Details of the activities and teaching methods and possible compulsory attendance will be agreed in the beginning of the respective courses.

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

**Assessment methods and criteria:**Read more about [assessment criteria](#) at the University of Oulu webpage.**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**Required proficiency level:**

090302A-01 Oral pathology

090302A-02 Diseases of oral mucosa

090302A-04 Oral pathology, microscopy course

**Language of instruction:**

Finnish

**Timing:**

4th - 5th study year, Subject studies and Advanced studies

**Learning outcomes:**

090302A-01 Oral pathology

090302A-02 Diseases of oral mucosa

090302A-04 Oral pathology, microscopy course

**Contents:**

090302A-01 Oral pathology

090302A-02 Diseases of oral mucosa

090302A-04 Oral pathology, microscopy course

**Mode of delivery:**

090302A-01 Oral pathology

090302A-02 Diseases of oral mucosa

090302A-04 Oral pathology, microscopy course

**Learning activities and teaching methods:**

090302A-01 Oral pathology

090302A-02 Diseases of oral mucosa

090302A-04 Oral pathology, microscopy course

**Target group:**

4th-5th year dental students

**Prerequisites and co-requisites:**

090302A-01 Oral pathology

090302A-02 Diseases of oral mucosa

090302A-04 Oral pathology, microscopy course

**Recommended optional programme components:**

090302A-01 Oral pathology

090302A-02 Diseases of oral mucosa

090302A-04 Oral pathology, microscopy course

**Recommended or required reading:**

090302A-01 Oral pathology  
 090302A-02 Diseases of oral mucosa  
 090302A-04 Oral pathology, microscopy course

**Assessment methods and criteria:**

090302A-01 Oral pathology  
 090302A-02 Diseases of oral mucosa  
 090302A-04 Oral pathology, microscopy course

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course of Oral Pathology utilizes a numerical grading scale 1-5.

Oral Pathology contains the courses 090302A-01 Oral pathology, 090302A-02 Diseases of oral mucosa, 090302A-04 Oral pathology, microscopy course and clinical work.

**Person responsible:**

Professor Tuula Salo

**Working life cooperation:**

090302A-01 Oral pathology  
 090302A-02 Diseases of oral mucosa  
 090302A-04 Oral pathology, microscopy course

**Other information:**

-

## 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 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

5th year (Autumn term/Spring term)

**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.

**Mode of delivery:**

Virtual microscopy demonstrations

**Learning activities and teaching methods:**

Virtual microscopy demonstrations

**Target group:**

5. vuoden hammaslääketieteen opiskelijat

**Prerequisites and co-requisites:**

All preclinical dental studies are prerequisites for this course

**Recommended optional programme components:**

090302A Oral Pathology

**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

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes verbal grading scale pass/fail.

**Person responsible:**

Professor Tuula Salo

**Working life cooperation:**

No

**Other information:**

The course is a part of the course of 090302A-01 Oral pathology

**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

**ECTS Credits:**

0,5 ECTS credits

**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

**Mode of delivery:**

Lectures, individual studies

**Learning activities and teaching methods:**

Lectures, individual studies

**Target group:**

5th year dental students

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

090502A Oral and Maxillofacial Surgery

**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:**

Attendance at lectures is compulsory

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes verbal grading scale pass/fail.

**Person responsible:**

Senior Lecturer Antti Raunio/Senior Lecturer Leena Ylikontiola

**Working life cooperation:**

Work placement takes place during clinical training and teaching

**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

**ECTS Credits:**

0,3 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

4th study year, Advanced studies

**Learning outcomes:**

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

**Contents:**

Orthognathic surgery

**Mode of delivery:**

Lectures

**Learning activities and teaching methods:**

Lectures

**Target group:**

4th year dental students

**Prerequisites and co-requisites:**

No

**Recommended optional programme components:**

090502A Oral and Maxillofacial Surgery

**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:**

Attendance at lectures is compulsory

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes verbal grading scale pass/fail.

**Person responsible:**

Senior Lecturer Antti Raunio

**Other information:**

-

## 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

**ECTS Credits:**

0,2 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

4th study year, Advanced studies

**Learning outcomes:**

To give further understanding about the surgical possibilities in occlusal rehabilitation

**Contents:**

Surgery of the temporomandibular joint (TMJ-surgery)

**Mode of delivery:**

lectures, individual studies

**Learning activities and teaching methods:**

lectures, individual studies

**Target group:**

4th year dental students

**Prerequisites and co-requisites:**

No

**Recommended optional programme components:**

090502A Oral and Maxillofacial Surgery

**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:**

Attendance at lectures is compulsory

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes verbal grading scale pass/fail.

**Person responsible:**

Senior Lecturer Antti Raunio

**Working life cooperation:**

-

**Other information:**

-

**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 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

3rd-5th study year

**Learning outcomes:**

Detailed learning outcomes are described in connection with various courses.

**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

**Mode of delivery:**

Detailed modes of delivery are described in connection with various courses.

**Learning activities and teaching methods:**

Detailed learning activities and teaching methods are described in connection with various courses.

**Target group:**

3rd - 5th year dental students

**Prerequisites and co-requisites:**

Detailed prerequisites and co-requisites are described in connection with various courses.

**Recommended optional programme components:**

Detailed recommended optional programme components are described in connection with various courses.

**Recommended or required reading:**

Therapia Odontologica: hammaslääketieteen käsikirja. Helsinki, Academica

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./uusin painos.

**Assessment methods and criteria:**

Detailed assessment methods are described in connection with various courses.

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The exams of Oral and Maxillofacial Surgery utilizes a numerical grading scale 1-5. In the numerical scale zero stands for a fail.

Degree in Oral and Maxillofacial Surgery is based on assessment of clinical skills, results of mid-term exams and result of the final exam.

**Person responsible:**

Professor Kyösti Oikarinen

**Working life cooperation:**

Work placements are described in connection with various courses.

**Other information:**

-

## 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 ECTS credits

**Language of instruction:**

**Lectures in Finnish;** research projects also in English

**Timing:**

5th year Autumn term, Subject studies 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.

**Mode of delivery:**

lectures and seminars

**Learning activities and teaching methods:**

lectures and seminars

**Target group:**

5th year dental students

**Prerequisites and co-requisites:**

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

**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

**Assessment methods and criteria:**

written exam

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes a numerical grading scale 1-5. In the numerical scale zero stands for a fail.

**Person responsible:**

Tuula Salo and Arja Kullaa

**Working life cooperation:**

No

**Other information:**

-

## 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

**ECTS Credits:**

0,4 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

1st study year, Autumn/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 with the teaching of Department of Public Health Science and General Practice.

**Mode of delivery:**

Face-to-face teaching

**Learning activities and teaching methods:**

lectures, site-visit to public health dentist

**Target group:**

1st year dental students

**Prerequisites and co-requisites:**

No

**Recommended optional programme components:**

-

**Recommended or required reading:**

materials delivered in the course

**Assessment methods and criteria:**

learning assignment

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes verbal grading scale pass/fail.

**Person responsible:**

Professor Jorma Virtanen

**Working life cooperation:**

-

**Other information:**

Basic Skills in Dentistry

## 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

**ECTS Credits:**

0,5 ECTS cr (6 hours)

**Language of instruction:**

Finnish

**Timing:**

DC7-DC8, Intermediate studies

**Learning outcomes:**

After the course the student has basic knowledge on otorhinolaryngology in relation to oro-dental-diseases.

**Contents:**

Short description of the ear, nose, oral, pharynx, larynx and salivary gland diseases and diseases of the face and neck as well as their origin, epidemiology, diagnostics and treatment related to oro-dental diseases.

**Mode of delivery:**

blended teaching

**Learning activities and teaching methods:**

lectures (6 lectures) and learning diary

**Target group:**

4th year dental students

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

Oral Diseases and Health Strand

**Recommended or required reading:**

literature giving during the lectures

**Assessment methods and criteria:**

obligation to 100% attendance in teaching and learning diary

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

pass/fail

**Person responsible:**

Professor Olli-Pekka Alho

**Working life cooperation:**

No

**Other information:**

-

## 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

**ECTS Credits:**

0,5 ECTS credits

**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

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

-

**Assessment methods and criteria:**

Obligatory presence and prepare patient cases and present them in groups

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

Pass/fail

**Person responsible:**

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

Senior Lecturer Sari Koskinen (pedodontics)

**Other information:**

-

**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.

**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

**Language of instruction:**

Finnish

**Assessment methods and criteria:**

Read more about [assessment criteria](#) at the University of Oulu webpage.

**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

**Language of instruction:**

Finnish

**Assessment methods and criteria:**

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Other information:**

Obligatory for courses started 2007, 2008, 2009 and 2010

## **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

**ECTS Credits:**

0,4 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

4th study year Autumn/Spring term

**Learning outcomes:**

In the end of the course the student knows the special features in surgery working with children and recognises developmental disturbances with oral and craniofacial changes

**Contents:**

Childrens' oral and maxillofacial treatment possibilities

**Mode of delivery:**

Lectures

**Learning activities and teaching methods:**

Lectures

**Target group:**

4th year dental students

**Prerequisites and co-requisites:**

no

**Recommended optional programme components:**

no

**Recommended or required reading:**

Contemporary Oral and Maxillofacial Surgery/Editors: James R. Hupp, Edward Ellis, Myron R. Tucker. Mosby, latest edition

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

**Assessment methods and criteria:**

Attendance at lectures is compulsory.

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

Pass/fail

**Person responsible:**

Department of Oral and Maxillofacial Surgery, Senior Lecturer

**Working life cooperation:**

No

**Other information:**

-

## **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

**ECTS Credits:**

2,5 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

4th study 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 pulp 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.

**Mode of delivery:**

Face-to-face: lectures, fantom-teaching. Visit to well-baby clinic.

**Learning activities and teaching methods:**

Lectures 14 h representing 28 h learning, study visit to Well-baby clinic 3 h

**Target group:**

4th year dental students. Compulsory to all dental students.

**Prerequisites and co-requisites:**

Previous studies according to the dental curriculum.

**Recommended optional programme components:**

No alternative studies. Development and Growth Strand

**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

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

**Assessment methods and criteria:**

Learning journal, fantom- working

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes verbal grading scale pass/fail.

**Person responsible:**

Senior Lecturer Päivi Ollila

**Working life cooperation:**

Yes. Clinical phase practice integrated into the Dental Training Clinic, City of Oulu.

**Other information:**

**090501A Preventive Dentistry and Cariology**

Details of the activities and teaching methods and possible compulsory attendance will be agreed in the beginning of the respective courses.

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).



**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

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

**Opettajat:** Tellervo Tervonen

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

2,1 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

5th study 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

**Target group:**

5. year dental students

**Recommended or required reading:**

Carranza's Clinical Periodontology

**Assessment methods and criteria:**

written exam

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes a numerical grading scale 1-5. In the numerical scale zero stands for a fail.

**Person responsible:**

Professor Tellervo Tervonen

**Working life cooperation:**

No

**Other information:**

-

## 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

**ECTS Credits:**

2,7 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

4th study 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

**Mode of delivery:**

Lectures, phantom

**Learning activities and teaching methods:**

lectures, seminars, practical exercises, individual studies

**Target group:**

4th year dental students

**Recommended or required reading:**

Carranza's Clinical Periodontology, 10. painos sivut: 452-464, 631-634, 881-985, 991-1003, 1039-1068, 11. painos soveltuvin osin.

Luennoilla jaettava materiaali

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

**Assessment methods and criteria:**

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

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes a numerical grading scale 1-5. In the numerical scale zero stands for a fail.

**Person responsible:**

Professori Tellervo Tervonen

**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

**ECTS Credits:**

0,5 ECTS credits

**Language of instruction:**

**Finnish**

**Timing:**

4th year Autumn or Spring term

**Learning outcomes:**

To understand special features of periodontal structures of young and adolescents. To diagnose pathological conditions of periodontal tissues amongst young people.

**Contents:**

Diagnostics and treatment of periodontal diseases of young and adolescents.

**Mode of delivery:**

Lectures

**Learning activities and teaching methods:**

Lectures and patient cases 3 hours, examination

**Target group:**

4th year dental students

**Prerequisites and co-requisites:**

Student must have passed earlier theoretical study modules in periodontology.

**Recommended optional programme components:**

This study module is part of combination of oral and cranial growth and development.

**Recommended or required reading:**

Carranza's Clinical Periodontology, 10. edition, pages:404-409, 506-511. Carranza´s Clinical periodontology 11. edition applicable pages.

Available lecture books can be checked [tästä linkistä](#)

**Assessment methods and criteria:**

Examination

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes a numerical grading scale 1-5. In the numerical scale zero stands for a fail.

**Person responsible:**

Professor Tellervo Tervonen

**Working life cooperation:**

No

## 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

### **Language of instruction:**

**Finnish**

### **Timing:**

3rd - 5th study year

### **Learning outcomes:**

Upon completion of the course the student will be able to prevent, diagnose and treat periodontal diseases and peri-implant infections. The student knows how to make a plan for periodontal maintenance therapy and is aware of the methods of periodontal surgery. Also, the student is able to diagnose and treat periodontal problems of children and adolescents and he/she knows the special features of dental treatment of geriatric patients. After the courses the student can explain the associations between periodontal and systemic health. The student is able to search for new information on periodontology and geriatric dentistry.

### **Contents:**

Classification and pathogenesis of periodontal diseases. Clinical examination of periodontal and peri-implant tissues, diagnosis of periodontal diseases and peri-implant infections. Treatment planning and gradation of the work between dental hygienists, general dentists and specialists. Anti-infective periodontal therapies, methods of periodontal surgery. Diagnosis and treatment of periodontal problems in children and adolescents. Dental care of geriatric patients.

### **Mode of delivery:**

face to face teaching, distant teaching

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

lectures, non-guided teaching, study groups, on-line teaching, phantom-teaching

### **Target group:**

3rd - 5th year dental students

### **Prerequisites and co-requisites:**

A prerequisite to participate in each course is that all previous courses have been completed. In order to be able to participate in the final examination all courses and clinical patient cases (as required) should be completed. In addition the student has to show that he/she is able to work in the dental team. The final grade is based on the grades in final and intermediate examinations and on clinical studies.

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

Textbook Carranza's Clinical Periodontology, scientific papers

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

Written examinations, study-group exercises, on-line exercises

Read more about [assessment criteria](#) at the University of Oulu webpage.

### **Grading:**

The course units of Periodontology and Geriatric Dentistry utilizes a numerical grading scale 1-5. In the numerical scale zero stands for a fail.

### **Person responsible:**

Professor Tellervo Tervonen

## 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

**ECTS Credits:**

0 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

3rd study year, Subject studies

**Contents:**

Entrance exam to get into the course 090502A-01 Principles of Oral and Maxillofacial Surgery

**Mode of delivery:**

Entrance exam to get into the course 090502A-01 Principles of Oral and Maxillofacial Surgery

**Learning activities and teaching methods:**

Written entrance exam to get into the course 090502A-01 Principles of Oral and Maxillofacial Surgery

**Target group:**

3rd year dental students

**Recommended optional programme components:**

090502A Oral and Maxillofacial Surgery

090502A-01 Principles of Oral and Maxillofacial Surgery

**Recommended or required reading:**

Lectures on maxillofacial anatomy and patient examination

**Assessment methods and criteria:**

Written entrance exam to get into the course 090502A-01 Principles of Oral and Maxillofacial Surgery

Read more about [assessment criteria](#) at the University of Oulu webpage.**Grading:**

The course unit utilizes verbal grading scale pass/fail.

**Person responsible:**

Professor Kyösti Oikarinen

**Working life cooperation:**

No

**Other information:**

-

**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**ECTS Credits:**

0 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

3rd study year, Autumn term

**Learning outcomes:**

Upon completion of the course the student will be able to explain the basic facts of the structure of periodontium, the microbial etiology and immunological pathways of periodontal infections.

**Contents:**

Structure of periodontium, microbial etiology of periodontal infections, immunology.

**Mode of delivery:**

Written exam (1,5 h)

**Learning activities and teaching methods:**

Itseopiskelu

**Target group:**

3rd year dental students

**Prerequisites and co-requisites:**

Carranza's Clinical Periodontology, 11th ed., pages:

**Recommended or required reading:**

Carranza's Clinical Periodontology, 11th ed., pages: 12-27,66-70, 76-83, 160-164, 217-270, [www.expertconsult.com](http://www.expertconsult.com) The tooth supporting structures, pages 68-88 in 10th ed.

**Assessment methods and criteria:**

Written exam (1,5 h)

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes a numerical grading scale 1-5. In the numerical scale zero stands for a fail.

**Person responsible:**

Professor Tellervo Tervonen

**Working life cooperation:**

No

## 080206A: Prescriptions, 0,5 op

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Medicine

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

**Opettajat:** Viitala, Pirkko Liisa

**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

## 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

**ECTS Credits:**

16,5 - 17,9 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

2nd year Autumn term - 5th year Spring term

**Learning outcomes:**

The student will learn the biological basis and clinical features of dental caries, and its control and prediction.

**Contents:**

See

090501A-01 Basics of Operative Dentistry

090501A-02 Operative Dentistry

090501A-03 Endodontics I

090501A-05 Endodontics II  
 090501A-06 Cariology and General Health  
 090501A-07 Pedodontics

**Mode of delivery:**

Face-to-face

**Learning activities and teaching methods:**

Lectures 118 h  
 Fantom-practises 168 h  
 Group studies 17 h  
 Student's individual work 115 h  
 Examinations 15 h

**Target group:**

2nd - 5th year dental students. Compulsory to all dental students.

**Prerequisites and co-requisites:**

Courses must be passed as scheduled in the curriculum. See 'Assessment methods'.

**Recommended optional programme components:**

No alternative courses. Courses are part of the corresponding strands.

**Recommended or required reading:**

See different courses

**Assessment methods and criteria:**

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).

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

Numerical grading scale 1-5.

**Person responsible:**

Professor Leo Tjäderhane

**Working life cooperation:**

Yes. Clinical phase practice integrated into the Dental Training Clinic, City of Oulu.

**Other information:**

Details of the activities and teaching methods and possible compulsory attendance will be agreed in the beginning of the respective courses.

## 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

**ECTS Credits:**

3,8 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

3rd study year

**Learning activities and teaching methods:**

lectures

**Target group:**

3rd year dental students

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

**Recommended or required reading:**

(Goaz & White: Oral Radiology)

**Assessment methods and criteria:**

written exam

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes a numerical grading scale 1-5. In the numerical scale zero stands for a fail.

**Working life cooperation:**

-

**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

**ECTS Credits:**

3,2 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

3rd year Autumn/Spring term, Subject studies

**Learning outcomes:**

At the completion of this course the student should be able to perform anamnesis and examination of a surgical patient. He/she should be aware of the risks of general diseases and medication to surgical treatment. The student should perform independently conventional local anaesthetic measures and should be able to perform tooth extractions.

- 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

**Mode of delivery:**

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

**Learning activities and teaching methods:**

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

**Target group:**

3rd year dental students

**Prerequisites and co-requisites:**

Written entrance exam to get into the course

**Recommended optional programme components:**

090502A Oral and Maxillofacial Surgery

**Recommended or required reading:**

Contemporary Oral and Maxillofacial Surgery/Editors: James R. Hupp, Edward Ellis, Myron R. Tucker. Mosby, latest edition

**Assessment methods and criteria:**

Written exam

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes a numerical grading scale 1-5. In the numerical scale zero stands for a fail.

**Person responsible:**

Professor Kyösti Oikarinen

**Working life cooperation:**

Includes supervised practical clinical training

**Other information:**

Accepted course is a prerequisite for clinical studies in Oral and Maxillofacial Surgery

## 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

**Language of instruction:**

Finnish

**Timing:**

3rd - 5th study year

**Learning outcomes:**

In graduation the student knows the anatomy and function of the stomatognathic system and can objectively assess the need for prosthetic rehabilitation.

The student can do the basic prosthetic treatment procedures and simple prosthetic repairs.

The student knows the properties of the materials used in prosthetic dentistry.

The student can diagnose and treat the most common temporomandibular disorders.

**Contents:**

090503A-01 Fixed prosthodontics, incl. 090503A-05 Resin bonded fixed partial dentures (Maryland bridges) and 090503A-08 Inlays and onlays

090503A-02 Complete dentures, incl. 090503A-06 Immediate dentures

090503A-03 Removable partial dentures

090503A-04 Dental materials

090503A-07 Denture repair

**Mode of delivery:**

Face-to-face teaching

**Learning activities and teaching methods:**

lectures, demonstrations, study groups, exercises

**Target group:**

3rd - 5th year dental students

**Prerequisites and co-requisites:**

preclinical studies

**Recommended or required reading:**

hand out lecture materials, textbooks

**Assessment methods and criteria:**

lectures and/or written exams

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**



The course units of Prosthetic Dentistry utilizes a numerical grading scale 1-5. In the numerical scale zero stands for a fail.

**Person responsible:**

Professor Aune Raustia

**Other information:**

Oral Rehabilitation Strand

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

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Institute of Dentistry

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

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

0,4 ECTS cr

**Language of instruction:**

Finnish

**Timing:**

DC9, Intermediate studies

**Learning outcomes:**

Aim of the course is that a student knows special features of the psychiatric patients, young people and addicts. A student is able to find the proper approach and treatment decisions based on psychiatric patients, alcoholics and addicts. In addition, a student knows the psychological meaning of the oro-dental environment.

**Contents:**

Most common psychiatric diseases, treatment and medication and significance in dentistry. Also, facing a psychiatric patient and young people, alcoholics and addicts as a patient and the meaning of the oral environment to the psyche.

**Mode of delivery:**

face-to-face teaching

**Learning activities and teaching methods:**

lectures (6 hours)

**Target group:**

5th year dental students

**Prerequisites and co-requisites:**

no

**Recommended optional programme components:**

Oral diseases and health strand

**Recommended or required reading:**

Active participation in teaching and hand-out materials

**Assessment methods and criteria:**

examination or obligation to 100% attendance in teaching

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes verbal grading scale pass/fail

**Person responsible:**

Professor Matti Isohanni

**Working life cooperation:**

no

**Other information:**

-

## 090304A: Radiation Safety, 2,1 op

**Voimassaolo:** 01.08.2012 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Institute of Dentistry

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

**Opettajat:** Miika Nieminen

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

2,1 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

090304A-01 Radiation safety, part 1, 2nd study year Spring term

090304A-02 Radiation safety, part 2, 3rd study year Autumn term

**Target group:**

Dental students

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

-

**Assessment methods and criteria:**

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes a numerical grading scale 1-5. In the numerical scale zero stands for a fail.

**Person responsible:**

Professor Miika Nieminen

**Working life cooperation:**

No

### 090304A-01: Radiation Safety, Part 1, 1,5 op

**Voimassaolo:** 01.08.2012 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

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

**Opettajat:** Miika Nieminen

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

1,5 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

2nd study year Spring term

**Target group:**

2nd year dental students

**Assessment methods and criteria:**

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes a numerical grading scale 1-5. In the numerical scale zero stands for a fail.

**Person responsible:**

Professor Miika Nieminen

**Working life cooperation:**

No

### 090304A-02: Radiation Safety, Part 2, 0,6 op

**Voimassaolo:** 01.08.2012 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

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

**Opettajat:** Miika Nieminen

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

0,6 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

3rd study year Autumn term

**Target group:**

3rd year dental students

**Assessment methods and criteria:**

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes a numerical grading scale 1-5. In the numerical scale zero stands for a fail.

**Person responsible:**

Professor Miika Nieminen

**Working life cooperation:**

No

## 090510A-06: Rehabilitation of Occlusion, 0,4 op

**Opiskelumuoto:** Intermediate Studies

**Laji:** Partial credit

**Vastuuyksikkö:** Institute of Dentistry

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

**Opettajat:** Niskanen, Leena Marita

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

0,4 ECTS credits

**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

**Mode of delivery:**

Face-to-face teaching, independent study

**Learning activities and teaching methods:**

lectures, group works, individual studies

**Target group:**

4th year dental students

**Prerequisites and co-requisites:**

No

**Recommended optional programme components:**

-

**Recommended or required reading:**

material delivered in the course

**Assessment methods and criteria:**

learning assignment

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes verbal grading scale pass/fail.

**Person responsible:**

Professor Jorma Virtanen

**Working life cooperation:**

No

**Other information:**

Ora 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**ECTS Credits:**

2,5 ECTS credits

**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

**Mode of delivery:**

lectures, demonstrations, treatment planning exercises

**Learning activities and teaching methods:**

lectures, demonstrations, treatment planning exercises

**Target group:**

3rd - 4th year dental students

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

-

**Recommended or required reading:**

lecture handout material

**Assessment methods and criteria:**

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

Read more about [assessment criteria](#) at the University of Oulu webpage.**Grading:**

scale 0-5

**Person responsible:**

Senior Lecturer Ritva Kuoppala (at) oulu.fi, Senior Lecturer Erkki Hujanen (at) oulu.fi

**Working life cooperation:**

-

**Other information:**

-

**090602A: Research methods, 1 op****Opiskelumuoto:** Advanced Studies**Laji:** Course**Vastuuyksikkö:** Institute of Dentistry**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

**Assessment methods and criteria:**

Read more about [assessment criteria](#) at the University of Oulu webpage.

**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

**ECTS Credits:**

0,3 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

3rd study year, Spring 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

**Mode of delivery:**

lectures, demonstrations, individual studies

**Learning activities and teaching methods:**

lectures, demonstrations, individual studies

**Target group:**

3rd year dental students

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

-

**Recommended or required reading:**

lecture handout material

**Assessment methods and criteria:**

full-time participation needed

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

Pass/fail

**Person responsible:**

Senior Lecturer Ritva Kuoppala (at) oulu.fi

**Working life cooperation:**

-  
**Other information:**  
 -

## **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

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

0,3 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

4th study year Spring term, Advanced studies

**Learning activities and teaching methods:**

lectures

**Target group:**

4th year dental students

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

-

**Recommended or required reading:**

lecture hand out material

**Assessment methods and criteria:**

written exam

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course unit utilizes a numerical grading scale 1-5. In the numerical scale zero stands for a fail.

**Working life cooperation:**

-

## **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

**ECTS Credits:**

1,4 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

4th study year Autumn term, Advanced studies

**Learning activities and teaching methods:**

lectures

**Target group:**

4th year dental students

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

-

**Recommended or required reading:**

(Goaz &amp; White. Oral Radiology), lectures

**Assessment methods and criteria:**

written exam

Read more about [assessment criteria](#) at the University of Oulu webpage.**Grading:**

The course unit utilizes a numerical grading scale 1-5. In the numerical scale zero stands for a fail.

**Working life cooperation:**

-

**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**ECTS Credits:**

1,1 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

5th study year, Spring term

**Learning outcomes:**

Upon completion of the course the student has improved capabilities to read and evaluate scientific publications and search for relevant information from them.

**Contents:**

Evidence based clinical periodontology

**Mode of delivery:**

Face to face teaching

**Learning activities and teaching methods:**

Group work, presentation of the seminar to fellow students, discussion

**Target group:**

5th year dental students

**Prerequisites and co-requisites:**

previous courses in Periodontology

**Recommended or required reading:**

Scientific papers

**Assessment methods and criteria:**Read more about [assessment criteria](#) at the University of Oulu webpage.**Grading:**

The course unit utilizes verbal grading scale pass/fail.

**Person responsible:**

Professor Tellervo Tervonen

**Working life cooperation:**

No

**Other information:**

-

**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

**ECTS Credits:**

1,5 ECTS credits

**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

**Mode of delivery:**

lectures, seminars/small groups, individual studies

**Learning activities and teaching methods:**

lectures, seminars/small groups, individual studies

**Target group:**

3rd year dental students

**Prerequisites and co-requisites:**

Previous courses in periodontology

**Recommended optional programme components:**

-

**Recommended or required reading:**

Carranza's Clinical Periodontology

**Assessment methods and criteria:**

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

scale 0-5 or pass/fail

**Person responsible:**

Hilikka Pernu (at) oulu.fi

**Working life cooperation:**

-

**Other information:**

-

## 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 - 4th study year

**Learning outcomes:**

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

**Contents:**

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

**Mode of delivery:**

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

**Learning activities and teaching methods:**

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

**Target group:**



2nd - 4th year dental students

**Prerequisites and co-requisites:**

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

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

The course units of Stomatognathic Physiology utilizes a numerical grading scale 1-5. In the numerical scale zero stands for a fail.

**Person responsible:**

Professor Aune Raustia

**Working life cooperation:**

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

**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

**ECTS Credits:**

2,8 ECTS credits

**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.

**Mode of delivery:**

lectures, self-access learning

**Learning activities and teaching methods:**

lectures, self-access learning

**Target group:**

2nd year dental students

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

-

**Recommended or required reading:**

lecture handout material,

Okeson JP. Management of temporomandibular disorders and occlusion 7 ed. Elsevier Mosby 2013

**Assessment methods and criteria:**

written exam

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

scale 0-5

**Person responsible:**

Professor Aune Raustia, Senior Lecturer Ritva Näpänkangas

**Working life cooperation:**

-

**Other information:**

-

**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**ECTS Credits:**

4,2 ECTS credits

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

3rd study 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.

**Mode of delivery:**

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

**Learning activities and teaching methods:**

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

**Target group:**

3rd year dental students

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

-

**Recommended or required reading:**

lecture handout material,

Okeson JP. Management of temporomandibular disorders and occlusion 7 ed. Elsevier Mosby 2013

**Assessment methods and criteria:**

written exam

Read more about [assessment criteria](#) at the University of Oulu webpage.**Grading:**

The course unit utilizes a numerical grading scale 1-5. In the numerical scale zero stands for a fail.

**Person responsible:**

Professor Aune Raustia, Senior Lecturer Ritva Näpänkangas

**Working life cooperation:**

-

**Other information:**

-

**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**ECTS Credits:**

0,5 ECTS credits

**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.

**Mode of delivery:**

face-to-face teaching

**Learning activities and teaching methods:**

lectures (4 hours) and group work (4 hours)

**Target group:**

4th year dental students

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

-

**Recommended or required reading:**

lecture hand out material

**Assessment methods and criteria:**Read more about [assessment criteria](#) at the University of Oulu webpage.**Grading:**

The course unit utilizes verbal grading scale pass/fail.

**Person responsible:**

Professor Aune Raustia

**Working life cooperation:**

No

**090602S-01: Study plan, 4 op****Opiskelumuoto:** Advanced Studies**Laji:** Partial credit**Vastuuyksikkö:** Institute of Dentistry**Arvostelu:** 1 - 5, pass, fail**Opintokohteen kielet:** Finnish**ECTS Credits:**

4 ECTS credits

**Learning outcomes:**

See 090602S Thesis

The student can specify research problems to his/her research, choose the research method and formulate a blueprint for collecting, processing and reporting the matter, and the time scale for the research.

**Contents:**

See 090602S Thesis

The student formulates a research plan, in which he/she introduces context of his/her research, research problems, research method and the blueprint for collecting, processing and reporting the matter, and the time scale for the research.

**Learning activities and teaching methods:**

See 090602S Thesis

**Assessment methods and criteria:**

See 090602S Thesis

Read more about [assessment criteria](#) at the University of Oulu webpage.**Grading:**

See 090602S Thesis

The teacher subscribes the research plan and the teaching agreement form. The accepted plan for research will be registered to completed courses in WebOodi.

**Other information:**

See 080705S Thesis

More information <http://www.oulu.fi/hamm/research/index.html>The agreement form "Tutkielman ohjaussopimus" is found in [www.medicine.oulu.fi/peruskoulutus](http://www.medicine.oulu.fi/peruskoulutus).

The research plan and teaching agreement form "tutkielman ohjaussopimus" has to be accepted before returning the thesis.

**Department of Diagnostics and Oral Medicine (incl. Radiology)**

Person responsible: Professor Tuula Salo (at) oulu.fi

**Department of Prosthetic Dentistry**

Vastuuhenkilö: Professori Aune Raustia (at) oulu.fi

**Department of Oral development and Orthodontics**

Person responsible: Professor Pertti Pirttiniemi (at) oulu.fi

**Department of Periodontology and Geriatric Dentistry**

Person responsible: Professor Tellervo Tervonen (at) oulu.fi

**Department of Pedodontics, Cariology and Endodontology**

Person responsible: Professor Leo Tjäderhane (at) oulu.fi

**Department of Community Dentistry**

Person responsible: Associate professor Jorma Virtanen (at) oulu.fi

**Department of Oral and Maxillofacial Surgery**

Person responsible: Professor Kyösti Oikarinen (at) oulu.fi

## 090602S: Thesis, 20 op

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuyksikkö:** Institute of Dentistry

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

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

20 ECTS credits

**Language of instruction:**

Finnish, English

**Learning outcomes:**

See 080705S Thesis

The thesis in the degree Programmes of Medicine and Dentistry is a scientific work which shows the student's ability to scientific thinking and research. The student gets acquainted with scientific research and is able to evaluate research publications, the student is capable of independent and responsible work as part of a scientific community, develops his/her problem solving skills as well as critical and ethical thinking, and increases his/her readiness to scientific communication.

**Contents:**

See 080705S Thesis

Writing a study plan which includes the research plan. Supervised research and writing a thesis or scientific article (student as a first or second writer). Oral presentation of the research. Maturity exam.

**Mode of delivery:**

face-to-face teaching

**Learning activities and teaching methods:**

See 080705S Thesis

Formulation of research plan and independent research work under the supervision of the teacher. Writing a thesis and oral presentation.

**Target group:**

Dental students

**Prerequisites and co-requisites:**

-

**Recommended optional programme components:**

-

**Recommended or required reading:**

-

**Assessment methods and criteria:**

See 080705S Thesis

Accepted study and research plan, accepted thesis or scientific article, oral presentation.

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

See 080705S Thesis

Pass/fail

**Person responsible:**

See 'Other information'

**Working life cooperation:**

-

**Other information:**

See 080705S Thesis

The agreement form "Tutkielman ohjaussopimus" is found in [www.medicine oulu.fi/peruskoulutus](http://www.medicine oulu.fi/peruskoulutus).

More information <http://www oulu.fi/hamm/research/index.html>

**Department of Diagnostics and Oral Medicine (incl. Radiology)**

Person responsible: Professor Tuula Salo (at) oulu.fi

**Department of Prosthetic Dentistry**

Person responsible: Professori Aune Raustia (at) oulu.fi

**Department of Oral development and Orthodontics**

Person responsible: Professor Pertti Pirttiniemi (at) oulu.fi

**Department of Periodontology and Geriatric Dentistry**

Person responsible: Professor Tellervo Tervonen (at) oulu.fi

**Department of Pedodontics, Cariology and Endodontology**

Person responsible: Professor Leo Tjäderhane (at) oulu.fi

**Department of Community Dentistry**

Person responsible: Associate professor Jorma Virtanen (at) oulu.fi

**Department of Oral and Maxillofacial Surgery**

Person responsible: Professor Kyösti Oikarinen (at) oulu.fi

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

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuyksikkö:** Institute of Dentistry

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

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

2 ECTS credits

**Language of instruction:**

Finnish

**Timing:**

1st year Spring term, Subject studies

**Learning outcomes:**

The anatomy and the morphology of the human dentition.

**Contents:**

Different kind of dentitions, teeth in the masticatory system, the anatomy and the morphology of human teeth.

**Mode of delivery:**

Face-to-face: lectures, practical exercises

**Learning activities and teaching methods:**

Lectures (9 h, representing 18 h of learning) integrated into practical exercises (16 h), 100 % presence

Self-studies 11 h

Examination 1 h

**Target group:**

1st year dental students. Compulsory to all dental students.

**Prerequisites and co-requisites:**

Previous studies according to dental curriculum

**Recommended optional programme components:**

No alternative course units

See 040201A Anatomy

**Recommended or required reading:**

Reference book:

Wheeler, R.C. An Atlas of Tooth Form. 4 painos. Ss. 1-15; 33-77; 131-163. (96 s.)

Recommended: Berkovitz BKB, Holland GR, Moxham BJ. A color atlas & textbook of oral anatomy. Ss. 10-24.

Check availability [tästä linkistä](#) .

**Assessment methods and criteria:**

written exam; tooth identification exam

Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

Pass/fail

**Person responsible:**

Professor Leo Tjäderhane

**Working life cooperation:**

No

**Other information:**

Details of the activities and teaching methods and possible compulsory attendance will be agreed in the beginning of the respective courses.