



STUDIEPLAN FOR KLINISK SPESIALISTUTDANNING I PERIODONTI

Godkjent av Programutvalg for odontologiske fag ved
Det medisinsk-odontologiske fakultet juni 2009.

Målsetting

1. Å kvalifisere kandidater for følgende oppgaver:
 - Gi råd til praktiserende tannleger vedrørende behandling og forebyggende tiltak overfor den enkelte pasient
 - Være konsulent for offentlig tannhelsetjeneste vedrørende organisert tiltak mot periodontale sykdommer på populasjonsbasis
 - Behandle alle grader av periodontal sykdom, inklusive særlig kompliserte eller uvanlige periodontale kasus
 - Kunne drive utadrettet kursvirksomhet på etterutdanningsnivå for tannleger og annet tannhelsepersonell
2. Bidra til å dekke behovet for kvalifisert personell til klinisk undervisning og forskning

Læringsmål

- Kunne diagnostisere, vurdere og behandle sykdommer i tennenes støttevev
- Lede samarbeid mellom allmenntannleger og nødvendige spesialister i rehabilitering av pasienter med tannsett som er sterkt redusert p.g.a. periodontal sykdom
- Diagnostisere og evt. behandle tilstander og sykdommer i gingiva og de orale slimhinner som ikke går under diagnosene periodontal sykdom og gingivitt
- Sammen med allmenntannlege og annen spesialist vurdere behovet for og behandle tanntap som følge av periodontal sykdom ved hjelp av dentale implantater

- Kunne foreta etterkontroller og vedlikehold av transmucosale orale implantater og diagnostisere og behandle alle former for peri-implantitt
- Planlegge og gjennomføre undervisning og etterutdanning i periodonti

Varighet

Utdanningen er et 3-årig fulltiststudium (36 timer per uke i 40 uker over tre år). En tidsramme på inntil seks år kan godkjennes.

Spesifiserte krav

1. Grunnutdanning

Avlagt norsk eller godkjent utenlandsk tannlegeeksamen. Opptak til spesialistutdanningen krever videre minst to års praksis som allmenntannlege i full stilling.

2. Teoretisk utdanning

Programutvalget ved Institutt for klinisk odontologi, Det medisinsk-odontologiske fakultet godkjenner de ulike kursene. Alle kurs gitt på videreutdanningsnivå ved universiteter og høyskoler kan godkjennes. Kurs som er gjennomført for mer enn 10 år siden blir vanligvis ikke godkjent.

Hensikten med kursdeltakelsen er å heve kandidatenes generelle kunnskapsnivå innen basale og kliniske fag, samt forberede dem til faglige diskusjoner og gjennomføring av eget skriftlig arbeid. Fakultetet har en obligatorisk kurspakke (Core curriculum) som alle spesialistkandidater må gjennomføre i løpet av utdannelsens 1. og 2. semester.

a) Kjernekurs (Core Curriculum)

- Introduksjonsuke (20 timer)
 - Innføring i bruk av biblioteket
 - Informasjons- og kommunikasjonsteknologi (IKT)
 - Klinisk fotografering
- Epidemiologi (18 timer, 3 sp)
- Statistikk I (27 timer, 6 sp)
- Klinisk farmakologi (12 timer, 2 sp)

- Kurs i forskningsmetode (24 timer, 5 sp)
- Oral biologi (27 timer, 6 sp)
- Røntgen I (12 timer, 2 sp)

b) Støttekurs (obligatorisk)

- Hodets og halsens makroskopiske anatomi (24 timer, 4 sp)
- Mikrobiologi, immunologi og virologi (48 timer, 8 sp)
- Statistikk II (18 timer, 3 sp)
- Generell patologi (24 timer, 4 sp)
- Oral patologi (21 timer, 4 sp)
- Genetikk (12 timer, 2 sp)
- Forelesningsserie i
 - Endodonti
 - Gerodontologi
 - Kariologi
 - Kjeveortopedi
 - Oral kirurgi og oral medisin
 - Protetikk
 - Periodonti (ca 50 % presenteres av kandidatene) (36 timer, 9 sp)

c) Støttekurs (valgfrie)

Kandidatene kan følge teoretiske og praktiske kurs eller hospiteringer arrangert av Seksjon for periodonti eller gitt av eksterne forelesere i opptil 80 timer av utdannelsesstiden. Andre kurs kan godkjennes etter søknad.

d) Kurs i implantologi

Alle teoretiske og praktiske kurs i implantologi, gitt i regi av Implantatrådet er obligatoriske.

Implantologi (ca 30 timer, 5 sp)

(timeantallet kan variere noe; ca. 12 – 15 dobbelforelesinger)

e) Litteraturstudier / seminarer

Hensikten med litteratureseminarene er å 1) sette kandidatene godt inn i den litteratur og forskning som moderne periodonti baserer seg på, 2) gi kandidatene et nødvendig historisk perspektiv på periodontal forskning og terapi, 3) trene kandidatene i kritisk og evaluerende litteraturlesning, og 4) trene kandidatene i aktiv deltakelse i faglige diskusjoner.

Kandidatene plikter å følge litteratureseminarer som vanligvis avholdes en gang per uke. I tillegg leverer hver kandidat et skriftlig sammendrag over ulike ”kliniske” tema vedrørende periodontal terapi. Her blir den ”klassiske” litteraturen vurdert mot nyere litteratur i et historisk perspektiv. Innleverte kliniske seminaroppgaver vil være til god hjelp i eksamensforberedelsene. De tematiske listene vil være gjenstand for fortløpende revisjon.

Klinisk utdanning

Hensikten er å gi kandidatene tilstrekkelig praktisk trening i å stille diagnoser og utvikle forskjellige behandlingstilnærmelser innenfor klinisk periodonti slik at de kan påta seg behandlingsoppgaver utover det som kan forventes av allmennpraktiserende tannleger. Lærertjeneste i periodonti er 3 år i 20 % stilling. Tilsvarende hospitanttjeneste kan godkjennes. I tjenesten inngår utarbeiding av undervisningsmateriell til to seminarer evt. to studentforelesinger.

Pasientbehandling

Kandidatene skal under hele utdanningsperioden behandle pasienter med varierende grad av periodontal sykdom. I Læringsmappen skal kandidatene dokumentere at de på egenhånd har gjennomført pasientutredning, akuttkirurgiske inngrep og systematisk periodontal behandling av minst 40 pasienter. Kandidaten skal i tillegg i et tverrfaglig samarbeid utrede kasus for implantatforankret protetik og selv innsette minst 10 transmukosale implantater. Til eksamen framlegges en Vurderingsmappe som skal inneholde detaljert dokumentasjon av 10 ferdigbehandlede kasus hentet fra læringsmappen.

Kliniske seminarer

Kandidatene plikter å delta både i fagspesifikke og tverrfaglige ukentlige kliniske seminarer. Slike seminarer skal bidra til å øke klinisk forståelse og gi nyttig erfaring i å presentere kasus.

Evaluering

Etter avsluttet 2. og 4. semester vil det bli arrangert ett- og toårs evaluering med framlegging av egne kasus og påfølgende eksaminering av sentrale kliniske og teoretiske emner innen periodontien. For å få fortsette videreutdanningen må alle kandidatene ha bestått disse evalueringene.

Spesialistoppgave

Hensikten med det skriftlige arbeidet er å øke kandidatenes forståelse for vitenskapelig arbeid og arbeidsmetoder og å oppøve evnen til selvkritikk.

Krav

Kandidatene skal før de får fremstille seg til avsluttende eksamen ha forfattet/deltatt i forfatterskap av et skriftlig arbeid som må være godkjent av ansvarlig organ for spesialistutdanningen på lærestedet. Det skriftlige arbeidet skal fortrinnsvis være relatert til spesialiteten det skal søkes godkjenning i. Kravet til det skriftlige arbeidet er at det skal være på et nivå som gjør det publiseringsverdige. Dersom en kandidat allerede har avlagt doktoravhandling innen relevant fag, kan det innvilges fritak fra kravet om eget skriftlig arbeid. Fritak på grunnlag av annet vitenskapelig arbeid kan innvilges etter søknad.

Type arbeid

Det skriftlige arbeidet kan være 1) en vitenskapelig artikkel basert på egen forskning, 2) et kompilatorisk arbeid, eller 3) utvikling av særlig verdifullt undervisningsmateriale (seminaropplegg, instruksjonsmanual, video eller lignende).

Veiledning

Det forutsettes at planen (prosjektet) som skal ligge til grunn for det skriftlige arbeidet er forhåndsgodkjent av seksjon for periodonti.

Avsluttende eksamen

I tillegg til de eksamener og prøver som må avlegges i forbindelse med de enkelte delkurs, må alle kandidater fremstille seg til en avsluttende eksamen etter at alle deler av utdanningen er gjennomført og godkjent. Eksamensperioden strekker seg over 24 timer. Dagen før eksamen får kandidaten tildelt en ukjent pasient som han må ta opp fullstendig journal på. Kandidaten får så 24 timer til å utarbeide en fullstendig journal med diagnoser og begrunnet forslag til behandling (evt. alternative behandlinger). Perioden avsluttes med en muntlig eksamen som tar utgangspunkt i en diskusjon rundt den ukjente pasienten. I tillegg må kandidaten presentere en av sine egne kasus og blir videre eksaminert i sentrale emner fra den teoretiske og praktisk-kliniske undervisningen samt fra det skriftlige arbeidet. Kandidaten må til eksamen framlegge alle sine behandlede kasus dokumentert med journaler, røntgenbilder og kliniske fotos etter nærmere angitte regler. Spesialisteksamen skal avlegges for en kommisjon på tre medlemmer oppnevnt av ansvarlig organ på lærerstedet hvorav ett medlem skal være eksternt. Den norske tannlegforening's spesialistkomité skal orienteres om eksamenskommisjonens sammensetning så snart den er oppnevnt. Eksamen er offentlig. Når eksamen er bestått, kan kandidaten søke NTF om godkjenning som spesialist i periodonti.

Dispensasjon

Dispensasjoner fra krav og regler beskrevet i programmet kan i særlige tilfeller, og når spesielle grunner tilsier det, gis av ansvarlig organ på lærerstedet. Det presiseres at Den norske tannlegeforening ikke er bundet av slike avgjørelser når det eventuelt skal innstilles til offentlig godkjenning som spesialist.

Semesterplaner: Spesialistprogram periodonti

	1. studieår høstsemester	1. studieår vårsemester
Klinisk undervisning v/fagområdet	Instruktørvirksomhet 20% Egen pasientbehandling	Instruktørvirksomhet 20% Egen pasientbehandling
Kurs og seminarer v/fagområdet	Litteraturseminar: Current Kliniske emner Behandlingsplanlegging	Litteraturseminar: Current Kliniske emner Behandlingsplanlegging
Kjernekurs v/fakultetet	Introduksjonsuke Innføring i bruk av biblioteket IKT Klinisk fotografering Epidemiologi Klinisk farmakologi Statistikk I	Forskningsmetode Oral biologi Røntgen I
Andre kurs		Implantologi
Skriftlig arbeid: Seminaroppgaver Forskningsoppgave	Kliniske emner assays	Kliniske emner assays Forskningsoppgave Valg Oppstart
Eksamen/prøver	Kjernerpensumskursene 1. del	Kjernerpensumskursene 2. del 1. års evaluering

Semesterplaner: Spesialistprogram periodonti

	2. studieår høstsemester	2. studieår vårsemester
Klinisk undervisning v/fagområdet	Instruktørvirksomhet 20% Egen pasientbehandling	Instruktørvirksomhet 20% Egen pasientbehandling: Perio/Implantologi
Kurs og seminarer v/fagområdet	Litteraturseminar: Current Kliniske emner Behandlingsplanlegging	Litteraturseminar: Current Kliniske emner Behandlingsplanlegging
Støttekurs v/fakultetet	Statistikk II Mikrobiologi / Immunologi Generall patologi	Oral patologi Hodets og halsens makroskopiske anatomi Mikrobiologi, immunologi og virologi
Andre kurs (eksterne)	Implantologi Hospitering ved MIKROBIOLOGISK DIAGNOSTISK SERVICE, UiO / Ingar Olsen	Implantologi Kirurgiske komplikasjoner
Teoretisk arbeid	Kliniske emner assays	Kliniske emner assays
Forskningsoppgave	Forskningsoppgave Gjennomføring	Forskningsoppgave Gjennomføring
Eksamen/prøver	Støttekurs 1. del	Støttekurs 2. del 2. års evaluering

Semesterplaner: Spesialistprogram periodonti

	3. studieår høstsemester	3. studieår vårsemester
Klinisk undervisning v/fagområdet	Instruktørvirksomhet 20% Egen pasientbehandling	Instruktørvirksomhet 20% Egen pasientbehandling: Perio/Implantologi
Kurs og seminarer v/ fagområdet	Litteraturseminar: Current Kliniske emner Behandlingsplanlegging	Litteraturseminar: Current Kliniske emner
Støttekurs v/fakultetet	Genetikk Forelesningsserie i: Endodonti Gerodontologi Kariologi Kjeveortopedi Oral kirurgi og oral medisin Protetikk Periodonti	
Andre kurs (eksterne)	Implantologi	
Teoretisk arbeid Forskningsoppgave	Kliniske emner assays Forskningsoppgave Gjennomføring	Kliniske emner assays Forskningsoppgave Innlevering Frist 15/3
Eksamen/prøver	Støttekurs	Avsluttende eksamen Juni

Liste over emner som krever skriftlige innlevering og påfølgende gjennomgang:

- K-01 Treatment planning
- K-02 Cause-related periodontal therapy
- K-03 Patient motivation instruction
- K-04 Mechanical cleaning - plaque control
- K-05 Mechanical cleaning – interdental plaque control
- K-06 Diagnostic methods and aids – indices; clinical signs of inflammation
- K-07 Diagnostic methods and aids – indices; plaque, calculus and retention assessments
- K-08 Depuration - rationale and treatment of the infected root surface
- K-09 Depuration – sonic, ultrasonic scalers, lasers, rotational instruments, and handinstruments
- K-10 Periodontal surgical techniques
- K-11 Depuration - root debridement with and without flap elevation
- K-12 Non-surgical periodontal therapy
- K-13 Chemical means in the treatment of periodontal disease - antiseptics
- K-14 Chemical means in the treatment of periodontal disease – antibiotics
 - Local delivery
- K-15 Chemical means in the treatment of periodontal disease – antibiotics
 - Systemic delivery
- K-16 Supportive periodontal therapy
- K-17 Treatment of angular bony defects - traditional methods
- K-18 Treatment of angular bony defects - regenerative principles
- K-19 Treatment of angular bony defects - enamel matrix proteins
- K-20 Treatment of angular bony defects – GTR
- K-21 Treatment of angular bony defects - grafting materials
- K-22 Management of multi-rooted teeth - conventional treatment
- K-23 Management of multi-rooted teeth _ root separation_ and resection
- K-24 Management of multi-rooted teeth - regenerative procedures
- K-25 Mucogingival problems: gingival dimension, augmentation, recession
 - reaction to orthodontic restorative treatment
- K-26 Mucogingival therapy - rationale and techniques

K-27 Periodontal therapy - advances in aetiology
K-27-a Periodontal therapy - aetiology – microbiology
K-27-b Periodontal therapy - aetiology- biochemical and immunological methods
K-28 Periodontal therapy - disease progression
K-28-a Periodontal therapy - epidemiology classification
K-29 Periodontal therapy - advances in pathogenesis
K-29-a Periodontal therapy - pathogenesis – smoking
K-29-b Periodontal therapy - pathogenesis - CHD.enl
K-29-c Periodontal therapy - pathogenesis – diabetes
K-29-d Periodontal therapy - pathogenesis – PLW
K-29-e Periodontal therapy - pathogenesis – genetics
K-29-f Periodontal therapy - pathogenesis - lung disease

Vedlegg: European Federation of Periodontology

EFP program

<http://www.efp.net/education/graduate/>

Graduate

This programme comprises a three year course including an elective period in an accredited practice which enables the successful postgraduate student to practise periodontics and oral implant therapy on a specialist level.

The course consists of seminars and tutorials in the form of group discussion which will include an extensive review of the literature, treatment of patients referred by general practitioners for specific periodontal disease problems and research within the field of periodontology. The results of the conducted research project will be presented in the form of a written report or publication.

At the end of the three year programme and after passing the final examinations as well as a successful defence of a thesis a diploma in periodontology recognized by the EFP appropriate to, and of, the host academic institution will be conferred on the candidate.

The graduate programme may be extended so that a PhD degree can be obtained, however this would involve an extra period of time.

Global Objectives

Requirements and Objectives - 1st year

Requirements and Objectives - 2nd year

Requirements and Objectives - 3rd year

Assessment Procedures

I. Global Objectives

By the end of the programme candidates will be expected to demonstrate:

Intensive knowledge of sciences basic to dentistry in general and periodontology in particular.

Intensive knowledge of clinical periodontics.

A broad knowledge of all aspects of clinical and public health dentistry.

A broad knowledge of clinical medicine and surgery of the interactions of oral and systemic diseases and of the management of the medically compromised patient. Appropriate attitude to ethical and societal issues, and the place of dentistry in the health care spectrum.

Clinical expertise in the presentation, diagnosis and management of all known diseases and disorders of the periodontium.

Clinical expertise in diagnosis, case selection, treatment planning and surgical aspects of oral implantology.

Skill in evaluating scientific literature, in posing pertinent research questions and hypotheses, in experimental design, and in the prosecution and communication of a research project.

Requirements

Applicants must have:

Received a dental degree from an accredited Dental School.

Not less than one, preferably not less than two years experience in general dental practice prior to commencing the programme.

II. Requirements and Objectives - 1st year

1. Seminars and tutorials

This part of the programme is designed to provide detailed information and discussion of the literature related to the various topics. Where possible, reading lists will be provided. The student will be expected to present summaries and a critical evaluation of relevant articles or texts for group discussion. Further details of the organization of these seminars and tutorials will be given at the start of the programme. The content of the course is listed below.

1.1. Subject matter

Functional anatomy of the head and neck.

Biology of the periodontium and oral physiology.

Microbiology of dental plaque and oral microbial ecology.

Clinical features and diagnosis of periodontal diseases.

Therapy of periodontal diseases - initial treatment.

Radiology and other imaging techniques.

Pharmacology

1.2. Objectives

The student:

Should be familiar with the diverse anatomical features of the head and neck including the temporo-mandibular joint and their interrelated functional aspects.

Must be aware of the biology of cell function, cell-cell interactions, cell-matrix interaction, regulation of cellular function and the role of cytokines and growth factors. In addition the student must be acquainted with the principles related to wound healing and regeneration. Oral physiology will emphasize salivary functions and crevicular fluid biology.

Must have an in-depth knowledge of the composition of plaque and the chemical and microbial structure. He/she must be familiar with the literature pertaining to the relationship of plaque to inflammatory periodontal disease and have a basic understanding of culture techniques and tests to identify bacterial strains. Furthermore the student should be acquainted with the relationship of diet to plaque and be familiar with the various theories of calculus formation. This should be seen in the context of microbial ecology on skin and mucosal surfaces.

Must be acquainted with the research showing the relationship of gingivitis to plaque. In addition he/she must be fully acquainted with the clinical features and diagnosis of both chronic and acute forms of gingivitis and the aetiologic factors related to these inflammatory disease processes. Furthermore the student must be fully acquainted with the clinical features of chronic, adult periodontitis, periodontal disease in children and young adults, rapidly progressing periodontitis and the differential diagnosis of these problems.

Must be fully acquainted with the literature pertaining to the effects of oral hygiene, scaling and planing (hand and ultrasonic methods) on inflammatory gingival and periodontal diseases.

Must be familiar with the interpretation of both normal and pathological structures to be found on radiographs of the oral cavity. In addition the student should be aware of the techniques available for detecting changes in bone height on radiographs.

Must have knowledge of the action of the more commonly used analgesics, antiinflammatory and antimicrobial agents. Furthermore, the problem of drug interactions must be reviewed.

2. Research

Candidates will take part in the research programme of a department of periodontology or relevant collaborating department. They will be responsible for a defined project within this programme. At the completion of the course this research work will be presented to an examining committee for evaluation and discussion.

2.1. Objectives

By designing and carrying out a research project, the student will become familiar with the problems encountered in periodontal research. It is the intention that the work will be presented either as a written report and if possible in a form suitable for publication. The work must be in this form no later than the end of May of the 3rd year.

3. Patient treatment

3.1 Objectives

The student must be able to recognize the various forms of periodontal disease in order to make a diagnosis and prepare a treatment plan for each patient.

Each student is required to fully document each phase of treatment (slides, models, records) in order to subsequently present these cases for evaluation.

Students will be given the opportunity to attend clinics in which patients, referred by general dental practitioners, are treated by individual staff members.

In addition, during the 3rd year, students will be required to visit (private) periodontal practices in order to gain insight into the accepted manner of patient treatment and administration.

In order to gain insight into the problems of treatment planning the advanced case (combined problems of periodontal disease plus systemic restorative and prosthetic considerations) students are encouraged to see the results of treatment of cases in which such problems were present in combination with periodontal disease.

At the completion of the course it will be expected that each student has been able to carry out a wide range of therapeutic modalities. The documentation of these various phases of treatment will contribute to the construction of case reports.

3.2. Clinical requirements

Preclinical training

Initial therapy

Occlusal/orthodontic therapy

Surgical therapy

Maintenance therapy

The student:

Becomes familiar with the recommended instruments for initial therapy and learns how to maintain these instruments. Furthermore the student learns the ergonomic aspects of positioning of these instruments in the mouth. Subsequently the student is introduced to surgical instruments and is able to practice various techniques on pig's jaws.

Must be able to make an extensive investigation of the periodontal problems and document them thoroughly. He/she must be able to make a diagnosis and suggest a treatment plan, with various alternatives. When required, the student must discuss the treatment plan with the referring dentist and ensure that the restorative aspects of the therapy are correctly integrated with the periodontal treatment. The student must then be able to carry out the initial therapy - oral hygiene instruction, scaling and root planing (ultrasonic and hand instruments) so as to bring the inflammatory processes, as far as

possible, under control. Whenever possible the student will be encouraged to carry out any necessary restorative and endodontic treatment.

Must have insight into the problems arising from occlusal trauma including orthodontic aspects and temporo-mandibular joint dysfunction. When present these problems will be treated either by the referring dentist or a specialist in this field.

Must be familiar with the following techniques and be able to perform these procedures when indicated, including aftercare:

1. gingivectomy/local excision
2. modified Widman flap
3. apically positioned flap
4. root resection/hemisection
5. mucogingival surgery
6. regenerative periodontal surgery

Must be able to evaluate the results of his/her own treatment and to carry out any further procedures required to maintain the case.

4. Overview of time (hour) allocation for the first year

Category	Hours
Seminar/tutorials	320 hr.
Research	320 hr.
Patient treatment	640 hr.
TOTAL	1280 hr.

III. Requirements and Objectives - 2nd year

1. Seminars and tutorials

Following an extensive discussion of the pathogenesis of plaque-associated periodontal diseases and the epidemiology of periodontal diseases, attention will be given in this part of the programme to the evaluation of different treatment modalities and the interrelationships of the aetiology and treatment of periodontal diseases with other

disciplines within the field of dentistry. The method of discussion of the various topics (seminar/tutorial) is the same as in the 1st year.

1.1. Subject matter

Pathogenesis of plaque-associated periodontal diseases: The role of the host response.

Epidemiology of periodontal diseases.

Manifestations of systemic disorders in the oral cavity.

Medically compromised patients.

Antimicrobial treatment of periodontal diseases.

Occlusal trauma.

Therapy of periodontal diseases - periodontal surgery.

Treatment of furcation problems.

Interrelationships of periodontal disease and therapy with other dental disciplines.

Maintenance.

Behavioural sciences.

1.2. Objectives

The student:

Must understand the histopathological development of periodontal diseases and the pathogenic mechanisms of inflammation. In addition, the student should comprehend the immune reactions in the pathogenesis of gingival inflammation, and of lesions affecting the deeper tissues.

Must be acquainted with the major research works which have led to present day therapeutic modalities for individual and community treatment.

Must be fully acquainted with the systemic disorders which may modify the response of the periodontal tissues to plaque associated inflammatory disease. The student must also be aware of those systemic diseases which can manifest themselves in the periodontal tissues with or without a pre-existing plaque induced inflammatory response.

Must be aware of the best way to obtain a medical history and thereby assess the degree of risk (using a modified version of the ASA-score or other scientifically validated method).

Must have a broad knowledge of the effects of antibiotics on the bacteria associated with inflammatory periodontal diseases. In addition he/she must be aware of the work comparing the effect of antibiotic treatment compared with mechanical therapy.

Furthermore, the student must be fully acquainted with the role of antiseptics in the control of bacterial plaque and the effectiveness and use of these agents regarding the treatment of gingivitis and periodontitis.

Must be familiar with the literature relating to occlusal trauma. This includes the clinical and histological changes associated with traumatic occlusion and the modifying effects of this problem when combined with inflammatory periodontal disease. In addition the student must be aware of the place of the various treatment modalities used to treat a pathological occlusion.

Must be familiar with the historical background associated with the development of the various surgical methods of treating periodontal problems. Furthermore he/she must be fully acquainted with the following techniques, their indications and contraindications, advantages and disadvantages and effectiveness: gingivectomy, apically positioned flap and modified Widman flap with and without bone surgery, gingival extension techniques (mucogingival surgery), electrosurgery and guided tissue regeneration (GTR). The last subject (GTR) introduces the problem of new attachment versus re-attachment and the student must be fully aware of the research associated with this topic.

Must have a complete understanding of the treatment of furcation problems and the means of diagnosis. He/she must be acquainted with research evaluating the different treatment modalities.

Should be aware of the interrelationship of periodontitis to pulpal disease and the various approaches to treatment. In addition he/she must understand the place of adjunctive orthodontic, restorative and prosthetic therapy in the definitive phase of treatment.

Must understand the importance of maintenance therapy and he/she must be fully aware of the research associated with evaluation of aftercare.

Should understand the science behind alteration of behaviour patterns (including tobacco-cessation and dietary advice).

2. Research

2.1. See "requirements 1st year"

2.2. Biostatistics

At a stage convenient to the host institution, perhaps during the second year, the student will be given the opportunity to follow a course in biostatistics. The organization of the course, number of contact hours and preparation time will be determined not later than the commencement of the second year.

3. Patient treatment

see "requirements 1st year"

4. Case reports

During the second year students will be required to present the various phases of treatment of their patients for discussion within the group. This will provide students with the opportunity to see and discuss a wide range of problems. Emphasis will be placed on diagnosis and treatment planning.

4.1. Directive for case documentation

Case reports must contain the following data:

4.1.1.

A full history, including medical history, an assessment of the patient's expectations and desires for treatment, evaluation of the patient's motivation.

4.1.2.

Clinical examination: This should be both extra-oral and intra-oral. The intra-oral examination will include information concerning the functional state of the gingiva, probing pocket depth, probing attachment loss and furcation involvement in addition to the state of the oral mucous membranes. Where applicable, a restorative status and pulp vitalities should be recorded. The examination must include plaque and bleeding indices.

4.1.3.

Radiographic examination: A complete long-cone, standardised radiographic survey must be presented, together with vertical bite wings. A full assessment of the radiographs from a diagnostic point of view must be given.

4.1.4.

Photographic status: The following views must be presented:

4.1 Anterior view of both arches with teeth in contact

4.2 Buccal view of the lateral aspects of the arches

4.3 Palatal/lingual view of both arches

4.4 Occlusal views of the upper and lower arch

The photographic documentation should allow assessment of the clinical status of the case at initial presentation, during treatment and at completion of treatment. Where possible, photographs should also be taken throughout the treatment in order to illustrate the various procedures.

4.1.5. Special tests:

When indicated bacteriological and/or haematological tests

4.1.6. Models:

In cases where occlusal discrepancies are present, orthodontic type models should be available. Study models should be made of all cases.

4.1.7. Diagnosis:

This must relate to the overall case as well as each individual tooth.

4.1.8. Aetiology:

The major causes and the predisposing factors should be presented.

4.1.9. Prognosis:

This must relate to the overall situation as well as each individual tooth.

4.1.10. Treatment plan:

The treatment plan must be described in detail together with possible alternatives.

4.1.11. Progress of treatment:

The treatment carried out must be described in detail together with an ongoing assessment, including all aspects of documentation. The time spent on various aspects of treatment should also be recorded.

5. Overview of time (hour) allocation for the second year

Category	Hours
Seminar/tutorials	320 hr.
Research	320 hr.
Patient treatment	560 hr.
Case Reports	80 hr.
TOTAL	1280 hr.

IV. Requirements and Objectives - 3rd year

1.

During the last year of the programme, the student will be required to gain further experience in the treatment of patients by working in the clinic of a department of Periodontology or in an accredited practice for periodontology (outside the dental school). Further it is required to gain experience in oral implant therapy as well as teaching of dental students at undergraduate level.

2. Implant therapy

2.1.

Students will be required to obtain a basic knowledge of the current range of implant therapies their indications, contraindications and method of placement. Students will actively participate in the placement of implants as well as the restorative follow up procedures.

A. Theory

B. Clinical requirements

2.2. Objectives

A. THEORY

The student must be aware of the historical background to the development of dental implants and the various types of implant material currently in use. He/she must understand the indications and contraindications when considering placement of different implant materials and their advantages and disadvantages. Furthermore the student must be familiar with research on the durability of different types of implants.

B. CLINICAL REQUIREMENTS

The student should, at the end of this part of the programme, be able to place an (osseointegrated) implant and carry out the necessary maintenance therapy.

3. Overview of time (hour) allocation for the third year

Category	Hours
Periodontal practice	320 hr.
Implant therapy	320 hr.
Research	560 hr.
Teaching	80 hr.
TOTAL	1280 hr.

V. Assessment Procedures

During the programme participants will be assessed on their performance as follows:

After each course/series of seminars an examination is held, organised by those giving each course.

Six months after the start of the programme and at the end of each academic year, an assessment of each student's clinical performance.

At the end of each academic year, a pass grade must be obtained for all examinations and assessments in order that a student may proceed to the following year.

In each academic year a failed examination can be repeated once only. Should a student's clinical performance be inadequate, extra time may be allocated to the student. This extra time is only available in the first academic year.

In the third year, the training period at the clinic of a department of Periodontology or when available at an accredited Periodontal Specialty Clinic have to be attended.

Students must show proficiency in clinical treatment of cases involving both periodontics and oral implant therapy.

At the end of the third year a final examination will take place. Students are allowed to enter after all examinations during the programme have been graded as pass and clinical performance assessed as proficient. At the final examination candidates must be able to present five fully documented cases to the Board of Examiners. Candidates must be able to participate in a discussion of the diagnostic elements and treatment plans of two of these cases. Furthermore, the candidates must be prepared to answer questions related to the general subject of Periodontology. In addition, candidates are required to present their thesis to the Board of Examiners. This thesis must consist of at least two parts - a literature review and a report of the research carried out by the candidate, presented in a form suitable for publication in a hard core journal. The candidate will be required to defend the thesis in the presence of members of the Board of Examiners.

After passing the final examination and successfully defending the thesis, a diploma in Periodontology recognized by the EFP appropriate to, and of, the host academic institution will be conferred on the candidate.

Candidates who fail the examination but have attended the programme may receive an Attendance Certificate.

Candidates who pass the final examination but are unable to present a thesis suitable for publication may receive an Attendance Certificate. |

