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## **Final BDS Program**

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## **INTRODUCTION**

The third and fourth years are the final phase of your training program, during which you will need to complete your training, gaining the necessary basic competency to practice independently as a dental surgeon. To be eligible to proceed to this part of the program you should have passed all components of 1<sup>st</sup> BDS and 2<sup>nd</sup> BDS examinations.

The third year functions as the introduction to most of the procedures and skills that you will be required to perform in the day to day practice of dentistry. Both theoretical knowledge and the practical skills are included here. Although you will encounter some patients, a fair amount of time will be scheduled in the clinical skills laboratory for this purpose.

The fourth year consists mainly of putting the skills you learnt during the third year into practice, in actual clinical situations involving real patients. Students who have not followed the third year teaching program are not eligible to attend the fourth year program.

Something that you will have to pay close attention to is the fulfilling of minimum requirements stipulated by each clinical discipline. The basis for selecting these is to ensure that the minimum amount of practice in each skill and procedure is gained, giving you sufficient confidence to carry out these procedures in patients, unsupervised. Prescribing minimum requirements is one of the ways in which the Faculty of Dental Sciences as a training institution assesses and determines your fitness to practice dentistry safely and without a danger to the general public. Fulfilling them is a requirement for sitting the year end examinations.

Your work in the clinical appointments are designed not only to help you gain the specific technical competencies, but also all the other skills and competencies important to clinical practice. These include communication skills, ethical aspects of clinical practice, and how to fulfil the enormous responsibilities that accompany your role in society.

### **Clinical Etiquette**

To the large number of people who attend these clinics you are no different to a dental surgeon. In fact during this phase you may be called a ‘trainee dental surgeon’. Therefore your behaviour in clinical situations should be worthy of a professional.

You are expected to be in the prescribed clinical attire, with your name badge in place at all times. Excellent personal hygiene and neatness of your person should also be maintained.

Whether the assistance of supporting staff is available or not the responsibility for keeping clinical appointments with patients, including being punctual is yours. Prior planning of your engagements with the use of an effective appointment diary would be useful for this purpose. If and when unavoidable reasons prevent you from keeping an appointment, appropriate arrangements to minimize inconvenience to patients must be made.

Respect for patients, including respect for their time is very important. Please remember that as students you need to be grateful for the opportunity to learn from the patients seeking treatment at the Dental Hospital. While we take advantage of the availability of large numbers of for this purpose, always remember that the patients’ needs come before your learning needs.

**YEAR THREE**

**Final BDS Part I program**

## Time Table-Final BDS Part I -2016

	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>
8.00-9.00 am	Lecture Resto.Dent	Lecture Pros. Dent	Lecture Comm. Dent	Lecture Dent. Mat.	Lecture O. Sur
9.00-12 am	Clinical	Clinical	Clinical	Clinical	Clinical
12noon - 1.00 pm	Lunch Interval				
1.00-2.00 pm	Lecture Perio		Lecture Ortho	Lecture Oral Path	
2.00p.- 4.00 pm	Lab work/ Clinical	Lecture Resto/ Paedo  <b>Tutorial T</b>	Lab work/ Clinical	Lab work/ <b>Clinical</b>	Lab work/ Clinical

# **Community Dentistry**

## **Aim:**

Community Dentistry views oral health and disease from the point of view of the larger community rather than the individual. The discipline tries to make students realize the magnitude of the responsibility they bear in the provision of oral health care to the community in which they live. The teaching program is geared to help students acquire the particular competencies and skills required to fulfill this responsibility. The main study areas include Dental Public Health, Epidemiology and Health Promotion including Health Education, Individual and public health aspects of oral disease prevention, Oral Health care delivery, Statistics and Research methodology.

## **Intended learning outcomes:**

At the end of the module the students should:

- Be able to apply the principles of health promotion and health education in carrying out oral health promotion and oral disease prevention at individual and community levels.
- Be able to optimally utilize the oral health care delivery systems in Sri Lanka, based on an understanding of its organization
- Be able to apply the principles of epidemiology and its relevance in the delivery of oral health care in clinical dental practice and dental public health.
- Be able to carry out a simple research project and present the findings in the form of a report.

## **Teaching / learning methods:**

Lectures, Tutorials / Discussions, and Clinical / Practical / Field work

### **Semester 1**

#### **Lecture topics**

Introduction to dental public health

Concepts of health and disease

Health and environment

Health education and health behavior change  
Health Promotion  
Screening  
Demography  
Measurement of oral health and disease  
Oral health survey methods including sampling  
Introduction to epidemiology  
Types of epidemiological studies  
Epidemiology of dental caries and periodontal disease  
Maternal & child health services in Sri Lanka

## **Semester 2**

### **Lecture topics**

Epidemiology of oral cancer  
Epidemiology of rare oral conditions  
Modes of action of fluorides and fluoride toxicity  
Prevention of dental caries – systemic fluoride therapy, topical fluoride therapy, diet, fissure sealants  
Minimum intervention in caries control  
Prevention of periodontal disease  
Prevention of oral cancer  
Organization of oral health care delivery systems  
Human resources for oral health and planning of oral health services  
Professionals complementary to dentistry  
Primary Health Care

### **Group discussions**(conducted in small groups during each clinical appointment)

Principles and practice of screening and its application to oral disease  
Oral disease patterns in Sri Lanka  
Planning health education programs  
WHO basic methods- dental caries,  
Community Periodontal index  
Atraumatic restorative treatment technique  
State of public health in Sri Lanka  
Health planning

Questionnaire design

Short course on statistics

Tables and diagrams in statistical analysis

Introduction to SPSS

Screening for oral cancer and oral potentially malignant disorders

Public health approaches to prevention

Discussion based on field visits

Introduction to health economics

#### **Minimum requirements:**

- Carry out a Research project; design study, application for ethical clearance, collect data, analyse data and arrive at conclusions.
- Present the findings of the research project in the form of a project report at the end of the third year. This will be followed by an oral examination.

#### **Student Assessments:**

In-course

Project report	15%
Viva based on project	10%
Final part I examination	
Theory (written paper)	60%
Spots	15%

#### **Recommended reading:**

Essential Dental Public Health – Daly, Watt, Bachelor and Treasure

# **Restorative Dentistry**

## **Aim:**

This programme would cover the aetiology, natural history and basic preventive and management principles of the disease processes involving dental hard tissue. The course would include the diagnosis and management principles of caries, non-carious tooth substance loss, trauma involving the adult dentition and discolouration of dental hard tissue. In addition an in depth knowledge on properties of dental biomaterials would be provided. An introduction to the principles of endodontic treatment would be provided during this year of study

## **Intended learning outcomes:**

At the end of the third year program the students should be able to:

- Diagnose common disease conditions affecting dental hard tissue and formulate a management plan for patients with dental treatment needs
- Perform all stages of standard operative treatment including preventive measures for the restoration of teeth with simple carious lesions on phantom heads and patients safely and appropriately, using commonly used restorative material.
- Select and manipulate the commonly used materials appropriately and accurately, based on the understanding of their scientific principles

## **Teaching/ learning methods:**

Lectures , Group Discussions and Tutorials, Skills Training in the Skills Laboratory

## **Semester 1**

### **Summary of Lecture topics**

Introduction to Restorative Dentistry  
Cariology  
Operative Dentistry  
Properties of Dental Materials

## **Semester 2**

### **Lectures topics**

- Operative Dentistry
- Discoloration
- Properties of Dental Materials
- Introduction to Endodontics
- Trauma to the Dentition
- Non-Carious Tooth Substance Loss
- Developmental dental anomalies

### **Skills training in Simulator Laboratory (50 hours per student)**

conducted during the appointment

### **Group Discussions**

History taking, Examination of a dental patient, Natural history of caries, Investigations in Restorative Practice

### **Demonstrations**

Maintenance of the dental unit and instruments,  
Positioning of the patient and operator in the dental environment  
Caries removal,Cavity preparation,Restorative procedures

### **Clinical Training ( 50 Hours per student)**

A student would be required achieve a satisfactory level of competence in the skills laboratory on all operative procedures prior to treating patients. A skills test would be carried out prior to the students being allowed to handle patients.

An in-course assessment would be carried out within the appointment and feedback given for further improvement in skills.

### **Minimum Requirements-**

History taking and treatment planning on 15 patients  
20 Restorative Procedures on patients

## **Student Assessments**

Dental Materials

Theory - written paper (90 minutes)	40
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Restorative Dentistry 1

In-course Assessments	15
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Final BDS part I examination	
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Theory -written paper (60 minutes)	25
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Total	40
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## **Recommended Reading**

1. Pickard's Manual of Operative Dentistry- 9<sup>th</sup> Edition, Avijit Banerjee and Timothy Watson
2. Sturdevant's Art and Science of Operative Dentistry – 5<sup>th</sup> Edition, Theodore Robertson
3. Phillip's Science of Dental Materials – 11<sup>th</sup> and 12<sup>th</sup> Edition, G. Anusavice
4. Applied Dental Materials – 9<sup>th</sup> Edition, John F. McCabe
5. Textbook of Endodontics – 2<sup>nd</sup> Edition Nisha Garg

# **Prosthetic Dentistry**

## **Aim:**

The third year course in Prosthetic dentistry focuses mainly on the technical and laboratory aspects involved in the total or partial replacement of lost teeth in the adult patient.

## **Intended learning outcomes:**

At the end of the third year program the student should be:

- Competent in all laboratory procedures used in construction of conventional complete and acrylic removable partial dentures, based on a sound understanding of the scientific theoretical basis.
- Be competent in clinical management of uncomplicated cases requiring removable partial dentures

## **Teaching / learning methods:**

Lectures, Laboratory Demonstrations and Practice Sessions ,Clinical Demonstrations and Clinical Practice Sessions, Tutorials and Discussions

## **Semester 1**

### **Lecture topics**

#### **Introduction to Prosthetic Dentistry**

Clinical and Laboratory stages involved in removable prosthodontics

Anatomy denture bearing area

Principles of denture retention , support and stability

Principles of impression making

Principles of jaw relations /Dental articulators -

**Complete denture prosthodontics** - Impressions stage of treatment, Jaw relationship registration stage, Selection of teeth,

## **Semester 2**

### **Lecture topics**

**Complete denture prosthodontics;**Occlusion and articulation, Try-in stage,

Denture insertion stage,Review stage

Laboratory stages involved in complete denture construction-

Denture repair and addition -Relining and rebasing

## **Removable partial denture prosthetics ;**

Partially dentate patients assessments, treatment planning and treatment options, Introduction to removable partial dentures - Classification and components, Cast surveying, Principles of metal casting

### **Tutorial / discussion topics (10 classes- conducted in small groups during each clinical appointment)**

Dental impression techniques and materials.

Patient assessments & treatment planning

Principles of jaw relation and dental articulators.

Removable partial dentures - classification & components, Designing, cast surveying

Designing of complete dentures - retention, stability and support, clinical & lab stages

Principles of metal casting.

### **Lab demonstrations and Practice sessions**

Casting plaster models in rubber mould and Impressions  
trimming models

Construction of special impression trays

Construction of record blocks

Mounting models on plane line articulator

Setting up of teeth

Denture Repair

Flasking of full dentures

Processing of dentures in acrylic resin

Relining of dentures

Impression box in

Use of articulators

Use of clasp surveyor

Metal casting

### **Minimum requirements:**

- Successfully carryout all laboratory skills Prescribed
- Should manage two partially dentate patients with simple acrylic removable partial dentures

### **Student assessments:**

In course assessment

(Two Assessments of 1 laboratory skill & 4-5 OSPE each) 15

Final BDS part I examination

Written paper (1 hour ) 25

Total marks 40

### **Recommended reading :**

1. Text Book of Prosthodontics - V Rangaraja, TV Padmanabhan, Elsevier 2013, ISBN 978-81-312-2192-1.
2. Prosthetic treatment of the edentulous patient ,R.M. Basker and J.C. Davenport.
3. Prosthetic techniques and materials for students Wilson
4. A clinical guide to complete denture prosthetics, J.F. McCard & A.A. Grant.

# **Oral Surgery**

## **Aim:**

The aim of the Oral Surgery program of the final part 1 is to provide the opportunity for students to acquire knowledge skills and attitudes for cross infection control and management of medical emergencies and minor oral surgery.

## **Intended Learning Outcomes:**

On successful completion of the third year , students should demonstrate the competency to :

- Obtain local anesthesia of the oro-facial region effectively and appropriately using correct and standard techniques
- Carry out extraction of fully erupted teeth using forceps and elevators and perform minor oral surgical procedures including design and raising of muco-periosteal flaps, removal of bone and suturing, applying surgical principles
- Manage complications of local anesthesia and minor oral surgery
- Manage patients with infections including a carrier of an infection that may be transmitted during investigation / treatment procedures (e.g. HIV, Hepatitis B.) during dental treatment, ensuring the safety of other patients and staff including self.
- Take necessary precautionary measures during dental treatment, to prevent common medical emergencies. Identify and carryout initial management of common medical emergencies
- Set up a minor surgery unit and organize team work

## **Teaching / learning methods:**

Lectures, Clinical Work, Small Group Discussions

## **Semester 1**

### **Lecture topics**

Microbiology of cross infections

Mechanisms of contamination and cross infection

Diagnosis of diseases caused by cross infection  
Aseptic techniques in clinics and wards  
Use of disposable materials in clinical practice & disposal of contaminated material  
Protection of clinical staff against cross infection  
management of medical emergencies in dental practice

## **Semester 2**

### **Lectures topics**

Local anesthesia exodontia and minor oral surgery  
Local anesthesia – Techniques, Complications  
Extraction of teeth – Indications, technique, complications  
Healing of Extraction socket and complications  
Principles of minor oral surgery  
Principles of use of dental elevators  
Removal of buried teeth & roots  
Assessment and Treatment of impacted lower third molar  
Surgical management of impacted maxillary canines  
Removal of benign soft tissue lumps

### **Clinical /Practical topics**

Methods of sterilization in clinics,  
Ward practice of asepsis  
Disposal of contaminated material  
Management of medical emergencies  
Management of vaso-vagal syncope,  
Cardiopulmonary resuscitation,  
Early management of MI/ Angina,  
Management of epileptic attack,  
Diabetic coma management,  
Anaphylaxis management

### **Discussions**(conducted in small groups during each clinical appointment)

Drawing up of schemes for management of common medical emergencies

## **Clinical Demonstrations**

Assessment of the patient and recording of data  
Local anesthesia techniques (infiltration/ nerve block)  
Extraction techniques  
Use of elevators  
Removal of impacted teeth  
Excision of soft tissue mass  
Suturing methods

## **Student assessment:**

In-course -	15
Final part I examination	
Written paper	25
Total	40

## **Recommended Reading:**

1. Minor oral surgery, Geoffrey L Howe. Wright 1985
2. A synopsis of minor oral surgery, George Dimitroulis , Butterworth Heinemann 1997
3. Medical emergencies in dentistry, Nigel Robb and Jason Leitch, Oxford University Press 2006
4. Practical infection control in dentistry, John a Molinari, Jennifer A Harte, Lippincott 2009

# **Oral Pathology**

## **Aim:**

The aim of the Oral Pathology programme is to teach undergraduate students basic pathological processes and diagnostic aspects of common oral diseases. The students will be taught Pathology of Dental caries, Periodontal disease, Pulp and sequalae of pulpitis, Cysts of the oro facial region and Developmental diseases of teeth in detail. In addition they will be introduced to other common oral diseases.

## **Intended learning outcomes:**

On completion of the third year students should be able to:

- Correlate clinical presentation of common and important dental and oral diseases (periodontal disease dental caries, pulpitis and sequalae of pulpitis, Developmental abnormalities etc.,) to their Pathogenesis and histopathological changes,
- Use knowledge in the correct procedure of main biopsy techniques, when dispatching biopsies to pathology laboratories.

## **Teaching / learning methods:**

The subject is taught using lectures, tutorials and practicals.

### **Semester1**

#### **Lecture topics**

- Pathological techniques in oral diagnosis
- Pathology of dental caries
- Pathology and diagnosis of diseases of the pulp
- Pathology of sequalae of pulpitis
- Classification, aetiology, pathogenesis, histopathology and management of cysts of the mouth and jaws

## **Semester 2**

### **Lecture topics**

Pathogenesis of periodontal disease

Developmental disease of the teeth- diseases of morpho-differentiation

Developmental disease of the teeth- diseases of histo-differentiation

**Practical and Tutorial Classes**(conducted in small groups during each clinical appointment)

Dental caries and diseases of the pulp

Cystic lesions of the oral and maxillofacial region

Infections of the oro-facial region

Benign and hyperplastic soft tissue lesions

Oral potentially malignant disorders (OPMD)

Oral epithelial malignancies

Odontogenic tumours

Oral ulceration and vesiculo- bullous disorders

Diseases of salivary glands

Osteodystrophies

Developmental anomalies of teeth.

Pathogenesis of periodontal disease.

Introduction to cut ups and biopsy procedures.

### **Minimum requirements :**

None

### **Student assessments:**

None

### **Recommended reading**

1. Oral Medicine & Pathology- A Guide to Diagnosis and ManagementBy Saman Warnakulasuriya &W.M. Tilakaratne
2. Essentials of Oral Pathology and Oral Medicine, R.A. Cawson, E.W. Odell

# **Oral Medicine and Radiology**

## **Aim:**

To provide the opportunity for students to acquire the knowledge, skills and attitudes including use of intra oral and extra oral radiography required for the diagnosis of oro-facial conditions and diseases.

## **Intended learning outcomes:**

On successful completion the students should be able to:

- Carry out proper history taking and examination of patients with conditions of oro-facial region
- Take Dental Radiographs and employ other relevant and appropriate imaging techniques in the diagnosis and management of oro-facial diseases.
- Make appropriate referrals of patients for definitive / advanced treatment of the above conditions
- Demonstrate empathy towards patients suffering from oro-facial pain and other oro-facial conditions and commitment to provide the best care possible and to ensure safety of patients at all times including radiation safety

## **Teaching / learning methods:**

Lectures, Demonstrations, Discussions, Clinical Work

## **Semester 1**

### **Lecture topics**

History Taking  
Examination of a patient  
Investigations in Oral Medicine  
Dental Radiography - Radiation Physics and X-ray generating equipment, Films, film processing and mounting, Projection Geometry IOPA, Bitewing and Occlusal, DPT,

## **Semester 2**

### **Lecture topics**

Radiation induced injuries and prevention,

Interpretation of radiographs

Radiology of Impacted teeth, Periodontal Disease, Dental carries

### **Discussion Topics** (conducted in small groups during each clinical

appointment)

History taking

Examination

Investigations

Biopsy

Dental Radiology

Differential diagnosis and Treatment planning

OPMD and Oral cancer

Oral ulceration

Haematology

### **Minimum requirements:**

Minimum of 80% attendance out of all discussion classes and clinical sessions

### **Student Assessments:**

None

### **Recommended reading:**

1. Oral Medicine and Pathology, Saman Warnakulasooriya and WM Tilakaratne Published by Jaypee Brothers Medical Publishers (P) Ltd, ISBN- 978-93-5025-221-5
2. Textbook of Oral Mediicne, Anil Ghom Published by Jaypee Brothers Medical Publishers (P) Ltd, ISBN 978-81-8448-700-8
3. Oral Radiology, Starut C White and Micheal J Pharoah Published by Mosby- Elsvier, ISBN- 978-81-312-1977-5
4. Burkett's Oral Medicine, Martin S Greenberg and Michel Glick, Published by BC Decker Inc, Canada.

# **Periodontology**

## **Aim:**

Periodontology is the division of study that deals with the diseases and conditions that affect the structures and tissues that surround and support the teeth. The teaching aims to provide a thorough understanding of these diseases and enable future dental surgeons to deal with them effectively. Since these conditions are the most commonly seen of the oral diseases, competencies gained here are essential for practicing dentistry successfully in Sri Lanka.

## **Intended learning outcomes:**

At the end of the third year module the students should be able to:

- able to Determine the extent of the need for periodontal care based on the interpretation of the results of clinical assessment, a periodontal screening, and special investigations of a patient.
- formulate a plan of management for a patient with plaque induced mild periodontal disease,
- Carry out initial /hygiene phase of therapyguiding the patient to carryout effective plaque removal, periodontal scaling root planning and professional prophylactic procedures.
- Determine the need for follow up therapy based on the understanding of the pathogenesis of periodontal disease.
- Appreciate and educate the importance of periodontal health not only to maintain oral & dental health, but also for systemic health, and motivate

## **Teaching / learning methods:**

Lectures, Clinical Work / Tutorials / Discussions

## **Semester 1**

### **Lecture topics:**

Periodontal charting

Plaque biofilms

- Clinical features of periodontal disease
- Periodontal systemic relationship and risk factors
- Radiographic examination and special investigations aiding diagnosis
- Classification of periodontal diseases
- Periodontal diagnosis and prognosis

## **Semester 2**

### **Lecture topics:**

- Basic treatment planning
- Effective communication and motivation of patients
- Non Surgical Periodontal treatment- Hygiene phase therapy, supplementary/ advanced plaque control methods, Mechanical periodontal treatment, goals & clinical outcome.
- Periodontal reassessment (Recall) and maintenance care
- Natural progression of periodontal diseases

### **Discussion topics:**

Plaque control	Secondary factors of periodontal diseases
Advanced oral hygiene techniques	Re-assessment, recall /maintenance appointments
Examination of periodontal tissues	Plaque Biofilms
Radiological examination	Dento-gingival junction
Dental calculus and scaling	Host response
Oral hygiene behavior and patient motivation	Smoking and periodontal diseases
Tooth pastes and mouth rinses	Epidemiology of periodontal diseases
Classification of periodontal diseases	Furcation involvement
Non-surgical treatment of periodontal diseases	Dentine sensitivity
Ultrasonic scaling	Tooth surface loss and periodontal care

### **Clinical work :**

Observe, assist & learn periodontal charting, record keeping and patient follow up care

Specific dental chair positions during periodontal procedures.

Identification and familiarization of periodontal instruments

Skills lab demonstrations on periodontal Instrumentation

OHI, dental flossing technique, brushing techniques, plaque disclosing plaque and plaque charting, BOP charts, 6PPC, BPE. (In pairs)

Interpret and link I/A findings with BPE

Demonstration of ultrasonic Instrumentation

Demonstration of Instrumentation sharpening

Practice on patients

### **Minimum requirements :**

Test on Medical history – carries 5% marks to the incourse assessment marks considered for the final examination

Skills assessment test after completion of laboratory sessions

### **Student Assessments:**

- Skills assessment test after completion of laboratory sessions
- Test on Medical history – carries 5% marks to the in-course assessment marks considered for the final examination

### **Recommended reading:**

1. 'Clinical Guide to periodontology' BDJ publications: By Palmer & Flotd
2. 'Text book of clinical periodontology' Munksgaard: By Jan Lindhe
3. Periodontics: a synopsis' Jenkins and Allan's – Wright publications
4. 'Outline of Periodontics' by Manson & Eley
5. Periodontal Instrumentation- A Clinical Manual: By Pattison
6. Pathology of periodontal Disease (1994) D Williams, FJ Hughes, E.W Odell and P. Farthing. Oxford Medical Publication.

# **Orthodontics**

## **Aim:**

The teaching program for Final BDS Part 1 is designed to provide the knowledge and skills in basic Orthodontic Diagnosis. This consists of the study of the normal variation of form and function of Oro-facial tissues (both hard and soft) and the way and the extent to which these variations interact to cause Malocclusion.

## **Intended learning outcomes:**

At the end of the Final BDS Part 1 training program the student should be able to

- carry out orthodontic case assessment and collect relevant records, interpret the findings in order to identify a case beyond the normal variation which need treatment.

## **Teaching / learning methods:**

Lectures, Clinical work, Tutorials / Discussions, Laboratory demonstrations and practice

## **Semester 1**

### **Lecture topics**

Orthodontic Examination and Case Assessment

Classification of Malocclusion and Use of Indices

Aetiology of Malocclusion – Current Perspectives, Skeletal Factors, Soft

Tissue Factors, Dental Factors, Local Factors

Dynamic Occlusion

Features of Class I Class II and Class III malocclusions

Orthodontic Records

Basic Cephalometry

### **Clinical and Practical topics (conducted in small groups during each clinical appointment):**

Orthodontic history taking and case assessment.

Classification of malocclusion and use of indices in orthodontics.

Impression taking and casting

Preparation of orthodontic study models

Model analysis to determine tooth arch size discrepancy.

Interpretation of radiographic findings.

Cephalometric tracing and interpretation.

### **Topics for Tutorials or Group Discussions**

Post-natal growth and development and development of occlusion.

Aetiology of Malocclusion.

Classification of Malocclusion.

Interpretation of findings of orthodontic records and final diagnosis of the patient presenting with malocclusion

### **Clinical Demonstrations**

Orthodontic history taking and case assessment.

Classification of malocclusion and use of indices in orthodontics.

Impression taking.

Model analysis to determine tooth arch size discrepancy.

Interpretation of radiographic findings.

Cephalometric tracing and interpretation.

### **Laboratory Demonstrations**

Impression casting

Preparation of orthodontic study models- Impression Casting, Addition of bases, Trimming of bases

### **Minimum requirements:**

None

### **Student Assessments:**

None

### **Recommended Reading :**

1. Functional Orthodontic appliances. K.G.Isaacson, R.T.Reed and C.D.Stephens
2. Contemporary orthodontics (Chapter.1 ,Ch. 5,Ch.9 and Ch.17). William R.Proffit

# **Paedodontics**

## **Aims:**

To teach the basic theoretical and clinical concepts of keeping good oral hygiene and behaviour management of a child/adolescent patient in the dental clinic.

## **Intended learning outcomes:**

On successful completion of learning the students should be able to:

- To carry out a basic assessment to determine the dental and oral status of a child/adolescent patient for common dental and oral diseases and conditions.
- Practice effective preventive and treatment methods for ECC and caries of children and adolescents.
- Be familiar with the common oral and dental conditions other than caries that affect children and adolescents eg: Dental Trauma, Development anomalies ,
- Be able to manage an anxious child dental patient using non-pharmacological methods.

## **Teaching/ learning methods:**

Lectures, Clinical Demonstrations,Tutorials

## **Semester 1**

### **Lecture topics**

Management of Anxious children - Behaviour Management of Child Dental Patients

Early Childhood Caries - Aetiology

Traumatic Injuries of Anterior Teeth in Children (Primary and Permanent teeth)

-History and Investigations

## **Semester 2**

### **Lecture topics**

- Developmental anomalies of teeth - Introduction
- Management of Discolouration of Teeth -Aetiology and Diagnosis
- Management of Children with Special Healthcare Needs (CSHN) - Introduction

### **Clinical demonstrations (conducted in small groups during each clinical appointment)**

- Mechanical plaque controlling methods
- Dietary analysis and dietary counseling
- Vitality testing of teeth

### **Tutorials:**

- Effective communication &behaviour management strategies used in child patient
- History taking & examination of child dental patient
- Interpretation of investigations - radiographs, vitality testing
- Introduction to patients with dental trauma
- Fissure sealants

### **Minimum Requirements:**

One ‘follow-up’ case with early childhood caries to introduce preventive methods

### **Student assessment:**

No assessment that carry marks towards the final assessment.

### **Recommended reading:**

1. Handbook of Pediatric Dentistry by AC Cameron and RP Widmer.
2. Paediatric Dentistry by R Welbury, MS Duggal and MT Hosey.
3. Traumatic Dental Injuries: A Manual by JO Andreasen, LK Bakland, MT Flores and FM Andreasen.
4. Clinical Problem Solving in Orthodontics and Paediatric Dentistry by D Millett & R Welbury.
5. McDonald and Avery Dentistry for the Child and Adolescent by JA Dean, DR Avery and RE McDonald

# **YEAR FOUR**

## **Final BDS part II program**

**Time Table-Final BDS Part II 2016**

	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>
8.00-9.00 am	Lecture Oral Surgery	Lecture Resto. Dent	Lecture Prosth. Dent	Lecture Paedodontics	Lecture O. Medicine
9.00 am - 12.00noon	Clinical	Clinical	Clinical	Clinical	Clinical
12.00-1.00 pm	Lunch Interval				
1.00-2.00 pm	Lecture O.Path		Lecture Perio		
2.00-4.00 pm	Clinical	Lecture Ortho Tutorial	Clinical	Clinical	Clinical

# **Restorative Dentistry**

## **Aim:**

The final BDS Part II course would cover advanced aspects of Restorative Dentistry and would focus on endodontics and indirect restorations. The students would be expected to actively manage patients with complex restorative and oral rehabilitative treatment needs

## **Intended learning outcomes:**

On completion of the final year courses in restorative dentistry students are expected to be competent in:

- Comprehensive treatment planning and restorative management of teeth/dentitions with considerable loss of tooth tissue due to common dental diseases
- Planning and Performing endodontic treatment on single and multi-rooted teeth.
- Management of complex restorative problems such as perio endo lesions and common endodontic complications
- Planning and Carrying out advanced restorative procedures such crowns and extra coronal restorations and simple bridges. This includes patient selection and assessment, tooth preparation provisionalization, cementation and reviewing of such restorations.

## **Teaching /learning methods**

Lectures, group discussions and tutorials, Skills training in the skills laboratory

## **Semester 1**

### **Lecture topics**

- Endodontics including surgical aspects
- Endodontic complications and Resorption
- Restoration of Endodontically treated teeth
- Management of Spaced dentitions and missing teeth
- Management of Dental Trauma

## Semester 2

### Lecture topics

- Advanced Restorations
- Crowns and Extra Coronal Restorations
- Restoration of Space (Bridges)
- Developmental dental anomalies and management

### Skills training in Simulator Laboratory (20 hours)

**Group Discussions:** Root Canal Treatment, Endodontic instruments, trauma, tooth-wear, Indirect restorations, Bridges

**Demonstrations** Root canal treatment on single rooted and multi-rooted teeth, Direct veneers, Crown preparation, proximal restorations

**Clinical Training** - 135 Hours per student

### Minimum Requirements-

Amalgam Restorations	10
Composite Restorations	10
GIC Restorations	10
Veneers	5
Root Canal Treatment	7
Crowns	2
Others (Bleaching etc)	5
Comprehensive Pt	1

### Student Assessments

Theory One Essay and 4 SAQ's	-	40
In-course Assessments	-	15
OSCE	-	30
Practical/Clinical	-	25
Total	-	110

### Recommended Reading

1. Sturdevant's Art and Science of Operative Dentistry – 5<sup>th</sup> Edition, Theodore Robertson
2. Textbook of Endodontics – 2<sup>nd</sup> Edition Nisha Garg
3. Endodontics, Principles and Practice – 5<sup>th</sup> Edition, M. Torabinejad
4. Fundamentals of Fixed Prosthodontics – 4<sup>th</sup> Edition Herbert Shillingburg

# **Prosthetic Dentistry**

## **Aim:**

The final year program aims to provide an opportunity for gaining an advanced level of knowledge and skill in Prosthodontics. In addition to the technical knowledge and skills gained in the third year clinical management including diagnosis, treatment planning, insertion and post insertion of partial, complete, immediate, over dentures and transitional temporary dentures and special treatment procedures taught during this year.

## **Intended learning outcomes:**

On completion of the final year program the students should be:

- Be able to assess prosthetic needs of elderly people and formulate an appropriate treatment
- Competent to treat routine fully edentulous and partially dentate patients with full and partial acrylic dentures which are aesthetically pleasing and functional.
- In the construction of partial dentures be able to integrate design with other aspects of Restorative Dentistry in line with the concept of comprehensive patient care.
- Be able to deal with the common emergencies related to Prosthetic Dentistry.
- Be aware of the prosthetic rehabilitation of acquired and congenital maxillary and mandibular defects and implant supported prostheses and of problems requiring consultant and skilled specialist care and refer appropriately

## **Teaching / Learning methods:**

Lectures, Group Tutorials and Discussions,Clinical Demonstrations and Clinical Practice Sessions.,

## **Semester 1**

### **Lecture topics**

- Clinical protocol in removable partial denture construction
- Removable partial dentures
- Special impression techniques
- Relevance of existing denture
- Dental care for elderly people
- Preparation of the mouth prior to complete denture construction

## **Semester 2**

### **Lecture topics**

- Designing of complete dentures -Appearance , occlusal balance, and muscle balance
- Denture complaints
- Transition from natural to artificial dentition
- maxillo-facial prosthodontics – Introduction
- Additional retentive aids in prostheses
- implant supported prostheses - Introduction
- Role of the Prosthodontist in integrated disciplines

### **Discussion and Tutorial topics**

- |  |   |
|--|---|
| Impression making in   | Balanced occlusion and articulation in removable prosthodontics   |
| Prosthetic Dentistry   |   |
| Impression techniques,   |   |
| Materials and tray selection   |   |
| Prosthetic rehabilitation of edentulous patients                       | Prosthetic rehabilitation of Partially dentate patients - classification, components and their functions, designing, mouth preparation/cast surveying |
| Assessment diagnosis and treatment planning of the edentulous patient, |   |
| Clinical stages of complete denture construction                       | Common complaints and emergencies related to  |
| (problems and solutions)   |   |
| Occlusion and Articulation   |   |

Prosthetic Dentistry - Diagnosis and management of pain, discomfort and aesthetic problems,	Acquired defects (maxillectomy)
Looseness of denture and fracture	Single complete denture opposing natural dentition
Prosthetic rehabilitation of maxillo-facial defects	Transition from the natural dentition to Artificial Dentition
Congenital defects (cleft palate and velo pharyngeal deficiencies)	Oral health care for the elderly
	Prosthetic Rehabilitation of maxillary defects

### **Minimum requirements:**

Students are expected to treat a minimum of fourteen patients with varied prosthetic needs. It is expected that the students will achieve more than these minimum requirements.

The minimum clinical requirements that you are expected to complete are listed below:

- Two complete denture cases
- Four partially dentate case
- Eight other cases requiring prosthetic care (management of denture complaints etc.,)

### **Student assessments:**

In-course	15
Final BDS part II examination	
Clinical (OSCE)	30
Clinical practical exam	25
Theory	40
Total	110

### **Recommended reading:**

1. Text Book of Prosthodontic - V Rangaraja, TV Padmanabhan, Elsevier 2013,ISBN 978-81-312-2192
2. Prosthetic treatment of the edentulous patient ,R.M. Basker and J.C. Davenport.
3. A clinical guide to complete denture prosthetics, J.F. McCard & A.A. Grant.
4. A Clinical Guide to Removable Partial Dentures – J.C. Davenport R.M.Basker, J.R. Heath, J.P. Ralph, P.O. Glantz, BDJ Books 2000.
5. A Clinical Guide to Removable Partial Denture Design - J.C. Davenport, R.M. Basker, J.R. Heath, J.P. Ralph, P.O. Glantz, P. Hammond: BDJ Books 2000.
6. Clinical Dental Prosthetics. Fenn, Liddelow.

# **Oral Surgery**

## **Aim:**

Oral surgery during the final year of training is meant to provide you with the knowledge and skills needed to manage diseases, injuries and defects in the hard and soft tissues of the Oral cavity and the Maxillofacial region. The areas of study include: Maxillofacial trauma, Infections of the oro-facial region, Oral neoplasia, Odontogenic-tumours and Developmental anomalies of the maxillofacial region.

## **Intended Learning Outcomes:**

On successful completion of the oral surgery course of the final year you should be able to:

- Demonstrate sufficient knowledge on Diagnosis and management of simple odontogenic infections of the oral and para-oral tissues, spread of infection and its complications
- Assess maxillofacial fractures and attend or refer appropriately for emergency and definitive management of maxillofacial fractures and their complications
- Carry out an assessment on a patient with developmental anomalies of the mouth. Jaws (excluding teeth) and face and understand the principles of diagnosis and management
- Demonstrate sufficient skills in diagnosis of oral neoplasia including odontogenictumours and discuss their management

## **Teaching / learning methods:**

### **Semester 1**

#### **Lecture topics**

Applied anatomy of the maxillofacial region relevant to trauma  
Causation and epidemiology of maxillofacial fractures  
Clinical features of fractures of the mandible, middle third of the facial Skeleton  
Radiological investigations in maxillofacial injuries  
Management of mandibular fractures,  
fractures of the middle third of the facial Skeleton  
Emergency management of maxillofacial injuries  
Post-operative management of maxillofacial injuries  
Aetiology and pathogenesis of Bacterial infections of the oro-facial region  
Spread of Infections of odontogenic origin  
Osteomyelitis of the jaws, alveolar osteitis and Osteoradionecrosis

### **Semester 2**

#### **Lectures topics**

Embryology and Clinical features of common developmental anomalies of the face  
Management of cleft lip and palate  
Surgical treatment of developmental anomalies of soft tissues and tongue  
Management of jaw deformities and other major facial deformities  
Prosthetic management of oro-facial anomalies  
Benign neoplasms, odontogenictumours, oral pre cancer and oral cancer - definition, aetiology, pathogenesis, histopathology and clinical features  
Non Surgical Management of Oral cancer and the pre cancerous lesion  
Surgical management of Benign Neoplasms and Oral Cancer.  
Effects of radiation and chemo therapy on Head & Neck region  
Post operative follow up of cancer patients.

## **Clinical /Practical Classes**

Clinical features of pre-cancer, oral cancer and benign neoplasms

Biopsy technique

Surgical treatment of Oral cancer

Post treatment follows up of Oral cancer

Clinical features of maxillofacial injuries

Wiring techniques demonstration on models

Clinical features of cleft lip and palate and jaw deformities

## **Minimum requirements:**

Extraction of upper molars	10
Extraction of lower molars	10
Minor oral surgical procedures under local anesthesia	05

## **Student assessment:**

In-course assessment	15
Final examination	
Written paper	40
Clinical OSCE	30
Practical – a case discussion	25
Total	110

### **Recommended reading:**

1. Peter Banks ,Fractures of the facial skeleton , , Elsevier 2001
2. Anthony Porgrel, John Wiley ,Essentials of Oral and Maxillofacial Surgery, 2014
3. John R Hupp, Edward Ellis, Contemporary Oral and Maxillofacial Surgery, Elsevier 2008
4. T A TurveyJR Scully, PD Whaite Oral and Maxillofacial Surgery, Volume 1 , 2nd ed

# **Oral Pathology**

## **Aim:**

The aim of the Oral Pathology program is to teach undergraduate students diagnostic aspects of common oral diseases. In addition, importance of clinico-pathological correlation in the diagnosis of diseases and the clinical significance of common oral diseases are also taught. The students will be taught Infections of the oro facial region, Oral Potentially malignant diseases, Oral squamous cell carcinoma, Odontogenic tumours, Osteodystrophies, Salivary gland diseases, Vesiculo-bullous diseases, Lesions of connective tissue origin, and Forensic Odontology.

## **Intended learning outcomes:**

On completion of the fourth year students should be able to:

- Classify and correlate histopathological features of disorders that affect the jaw bones including cysts, odontogenic tumours, fibro-osseous and giant cell lesions to their clinical features
- Formulate radiological differential diagnoses of lesions occurring in jaw bones.
- Formulate the differential diagnosis of common soft tissue swellings including salivary gland disorders and ulcers with an understanding of their pathogenesis and histopathological features.
- correlate pathological features with treatment planning and discuss the prognostic indicators of oral squamous cell carcinoma and other potentially malignant disorders and conditions.
- Conversant with the role played by Dental surgeons in Forensic Pathology.

## **Teaching / learning methods:**

The subject is taught using lectures, tutorials and practicals.

### **Semester 1**

#### **Lecture topics**

Case report writing  
Classification, aetiology, pathogenesis, histopathology and diagnosis of non neoplastic salivary gland diseases,  
giant cell lesions and fibro-cemento osseous lesions  
osteodystrophies, Bacterial infections of the oro-facial region  
viral/fungal infections of the oro-facial region  
benign neoplasms including odontogenic tumours.  
oral potentially malignant disorders and oral cancer.

### **Semester 2**

#### **Lectures**

Death and issues pertaining to death certificate and medico-legal documentations  
Injury to teeth, face and jaws and related medico-legal aspects  
Record keeping, nomenclature, referral collection and transportation of specimens.  
Dental Neglect and Dental Surgeons' Role in Abuse and Neglect Cases  
Dental evidence in identification for medico-legal purposes and Disaster Victim Identification (DVI)  
Granulomatous disorders  
Vesiculobullous disorders  
Differential diagnosis of soft tissue swelling

## **Practical and Tutorial Classes**

Dental caries and diseases of the pulp	Diseases of salivary glands
Cystic lesions of the oral and maxillofacial region	Osteodystrophies
Infections of the oro-facial region	Differential diagnosis of white lesions
Benign and hyperplastic soft tissue lesions	Radiological differential diagnosis of jaw lesions
Oral potentially malignant disorders (OPMD)	Developmental anomalies of teeth.
Oral epithelial malignancies	Pathogenesis of periodontal disease.
Odontogenic tumours	Granulomatous diseases.
Oral ulceration and vesiculo-bullous disorders	Introduction to cut ups and biopsy procedures.

## **Minimum requirements**

- 80% attendance at practical classes and tutorial classes
- Pathology Case Report
- A group presentation on a common pathological entity - at the end of each block appointment.

## **Student assessments.**

### **In-course Assessment**

MCQ	15%
Viva-Voce	05 %
Pathology Case Report	10 %

### **Final examination**

Theory - Written paper at the final examination	40%
Clinical (OSCE)	30%

### **Recommended reading**

1. Oral Medicine & Pathology - A Guide to Diagnosis and Management. By Saman Warnakulasuriya & W.M. Tilakaratne
2. Essentials of Oral Pathology and Oral Medicine. R.A. Cawson, E.W. Odell

# **Oral Medicine**

## **Aim:**

The aim of the Oral Medicine programme is to provide the opportunity for students to acquire the knowledge, skills and attitudes required for the management of diseases / conditions that affect the soft tissues of the oro-facial region, temporo-mandibular joint, salivary glands.

## **Intended learning outcomes:**

On successful completion the Oral Medicine appointment, students should be:

- Conversant with basic diagnostic procedures including imaging techniques in relation to oro-facial diseases including oral manifestations of systemic diseases, oro-facial pain conditions, temporo-mandibular disorders, salivary gland disorders and oral ulceration, infections of the oral mucosa.
- Able to diagnose, detect or suspect oral cancer, OPMDs , patients at risk or the presence of predisposing factors, be aware of their management procedures and be able to advice patients manage them at the primary care level
- Able to refer patients appropriately for definitive / advanced treatment of the above conditions ensuring safety (including radiation safety) and the best interests of patients at all times

## **Teaching / learning methods:**

Lectures, Small Group Discussions, Demonstrations and Clinical classes

### **Semester 1**

#### **Lecture topics**

Scope of Oral Medicine	Investigations in oro-facial diagnosis
Temporo-mandibular Disorders	Professionalism in dental practice
Oral Diagnosis- Art of History taking, Doctor patient relationship, Principles of Clinical Examination, Special	Oral ulceration, Dermatological conditions which affect the skin and the oral mucosa Oro-facial Pain

### **Semester 2**

#### **Lecture topics**

Facial Paralysis
Disturbances of facial sensation
Diseases of the tongue
Oral manifestations of haematological, endocrine and metabolic disorders
Oral manifestations of sexually transmitted diseases
Oral manifestations of GIT & nutritional disorders
Immunologically mediated Oral diseases
Dental management of the medically compromised patients
Oral Pigmentation
Inherited disorders of the oral mucosa
Use of drug therapy in dental practice

## **Discussion Topics**

Handling a patient in the clinic- History, Examination  
Investigations  
Dental Radiology  
OPMD and Oral cancer  
Oral ulceration  
Drugs used in dentistry  
Infections in the oral cavity  
Systemic diseases and oral health  
Temporo-mandibular Disorders  
Tobacco cessation in the dental clinic

## **Minimum requirements:**

80% attendance in teaching sessions

## **Student assessment:**

In course Assessments	30%
Theory - MCQ paper at the end of 1 <sup>st</sup> semester	7.5%
MCQ paper at the end of 2 <sup>nd</sup> semester	7.5%
Clinical- (OSCE) at the end of second semester	10%
Long case at the end clinical appointment	5%
Final examination	
Written paper	40%
Clinical (OSCE) at the	30%

### **Recommended reading:**

1. Oral Medicine and Pathology, Saman Warnakulasooriya and WM Tilakaratne. Published by Jaypee Brothers Medical Publishers (P) Ltd, ISBN- 978-93-5025-221-5
2. Textbook of Oral Mediicne, Anil Ghom. Published by Jaypee Brothers Medical Publishers (P) Ltd, ISBN 978-81-8448-700-8
3. Essentials of Oral Medicine and Pathology, Edward Odell, Roderick Cawson. Published by Churchill Livingstone, ISBN 978-044310125-0
4. Burkett's Oral Medicine, Martin S Greenberg and Michel Glick, Published by BC Decker Inc, Canada

# **Periodontology**

## **Aim**

During the final year the course in Periodontology aims to improve the level of knowledge and skills of students beyond the management of a mild case of periodontal disease to a more advanced level. They will encounter more complex treatment procedures.

## **Intended learning outcomes:**

On completion of the final year program you should be able to:

- Diagnose common periodontal diseases and carry out a “a periodontal risk assessment” (PRA) on a patient, determine the prognosis and design a periodontal treatment plan including the need of long term periodontal follow up care for a patient with moderate to severe periodontal disease
- Manage patients (including medically compromised patients) with moderate to severe degree of periodontal diseases using all non surgical periodontal treatment methods, preventive care as well as simple surgical periodontal treatment to deliver long term follow up care. Carry out initial /hygiene phase of therapyguiding the patient to carryout effective plaque removal, periodontal scaling root planning and professional prophylactic procedures.
- Carry out /assist periodontal surgical procedures.
- Appreciate the importance of periodontal follow up care when managing patients with simple and complex disease
- Provide periodontal care for elderly/geriatric patients, hospitalized patients and physically and mentally handicapped patients.

## **Semester 1**

### **Lecture topics:**

- Periodontal risk assessment (PRA)
- Controlling risk factors
- Periodontal diagnosis and treatment planning
- Periodontal reassessment and maintenance care
- Non surgical treatment -Goals and clinical outcome
- Antimicrobial agents in periodontal therapy
- Systemic and local antibiotics in periodontal therapy
- Smoking and other risk factors
- Occlusal Traumatism
- Pathogenesis of periodontal disease
- Management of acute periodontal conditions

## **Semester 2**

### **Lecture topics:**

- Perio- endo lesions and their management
- Periodontal restorative interface
- Decision making: Flaps in Periodontal surgery,  
Gingivectomy, Muco gingival surgery
- Management of gingival recession/ root coverage procedures,
- Reconstructive Periodontal treatment and regeneration – bone grafts, GTR  
and advanced treatment for multi rooted teeth
- Periodontal wound healing
- Implants in periodontitis susceptible patients
- Periodontal Infection & systemic disease

### **Discussion topics:**

- Periodontal and dental treatment needs in individual patients.
- Diagnosis, prognosis & Treatment planning
- Extended follow- up periodontal care and maintenance
- Periodontal management of special care patients
- Influence of systemic factors
- Management of acute & specialized periodontal problems
- Antimicrobial drugs in periodontal treatment

Role of Occlusal trauma and restorative aspects in the progression of periodontal disease  
Concepts of non-surgical and surgical treatment for periodontal disease  
Periodontal surgical treatment  
Mucogingival problems  
Advanced methods of periodontal treatment

**Clinical work :**

- Follow-up care on minimum of 07 new patients. The cases should be complex/severe enough to meet with the final year training requirements. Out of the above seven cases:
  - One case involves multi-disciplinary management
  - Four complete cases where complete periodontal treatment has been carried out
  - Three partial cases where periodontal treatment/care is on-going (at least **15 periodontal procedures** should have been performed collectively on these partial cases)
  - At least one patient on whom one or both of the following have been carried out
    - a) Periodontal maintenance care procedures (Recall stage)
    - b) Assisted/carried out a periodontal surgical procedure.

**Student Assessments:**

Incourse assessment	30%
Final examination	
Theory	40%
Clinical (OSCE)	30%

### **Recommended reading:**

1. Understanding periodontal Diseases : Assessment and Diagnostic Procedures in Practice. By Chapple & Gilbert ;Quintessence Publishing Co.Ltd, London
2. Successful periodontal Therapy. A Non-Surgical Approach. By Heasman, Preshaw & Robertson : Quintessence Publishing Co.Ltd, London
3. "Text Book of Clinical Periodontology" Munksgaard: By Jan Lindhe
4. "Outline of Periodontics" by Manson & Eley
5. Periodontal Instrumentation – A Clinical Manual: By Pattison & Pattison

# **Orthodontics**

## **Aim:**

During the final BDS part 11 Course, the teaching programme is designed to enable the student to learn, how to apply the basic principles of treatment planning in orthodontics and to develop practical ability to carry out simple Orthodontic procedures. The teaching is planned round the two broad topic areas of Basic principles of treatment planning and Basics of Appliance therapy and Orthodontics in General Dental Practice.

## **Intended learning outcomes:**

On completion of the fourth and final year of the BDS program you are expected to be able to

- Recognize developing orthodontic problems at an early stage.
- Carry out simple Orthodontic treatment procedures within the scope of a general dental practitioner in the context of Sri Lanka
- Make an appropriate referral to the Orthodontic Specialist when necessary.

## **Teaching / learning methods:**

Lectures, Laboratory Work, Clinical Work (One month Block Appointment and afternoon rotation throughout the year)

## **Semester 1**

### **Lecture Topics**

- Basic Principles of treatment planning
- Implication of growth in Orthodontics
- Timing of orthodontic treatment
- Methods of gaining space - general
- Biologic basis of orthodontic tooth movement, bio mechanics, retention and stability
- Principles of construction of removable appliances
- Management of patients with removable appliances
- Anchorage planning in removable appliance therapy
- Construction of functional appliances
- Management of patients with functional appliances

## **Semester 2**

### **Lecture Topics**

- Basic principles of fixed appliances
- Retention and stability
- Scope of Orthodontics in general dental practice
- Interceptive Orthodontics without supervision of a consultant
- Management of cross bite with mandibular displacement
- Habit intervention
- Management of class II division I malocclusion using removable appliances
- Case selection and management of patients with functional appliances

## **Topics for Demonstration, Tutorial Classes or Group Discussions and Case Discussion.**

- Preparation of Problem list identify the need for treatment
- Application of basic principles of treatment planning
- Case Selection and timing of treatment
- Selection of cases suitable for treatment with simple removable appliances
- Design of removable appliances
- Management of patients with removable appliances (e.g Non Extraction treatment of Class 11 division 1 Malocclusions medial diastema, parafunctional habits, Class 11 division 1 Patients in mixed dentition, Management of Anchorage)
- Collection of records for functional appliances
- Management of patients with functional appliances.
- Orthodontic Tooth Movement
- Principles of Anchorage

## **Topics for Laboratory demonstration and practice**

- Construction of different components of removable appliances
- Adjustments of different types of active components in removable appliances
- Construction of functional appliances

## **Minimum requirements**

- Proof of carrying out the following
- Orthodontic assessment and diagnosis of patient. 2 cases
- Collect records for orthodontic treatment planning 2 cases
- Communicate treatment plan with patient and parent/ guardian 1 case
- Design and fitting of removable appliance 2 cases
- Activation and adjustment of removable appliance 1 case
- Manage a patient with deep over bite using flat anterior Bite plane. 1 case
- Design and fitting of a functional appliance 1 case
- Observe activities of the orthodontic service unit
- Submit a case report at the end of the second semester

## **Student Assessments**

In course assessment ( based on the case report submitted)	30%
Theory paper	40%
Clinical examination (OSCE)	30%

## **Recommended reading:**

1. The design, construction and use of removable orthodontic appliances. C.Philip Adams and W.John S.Kerr
2. Functional Orthodontic appliances. K.G.Isaacson, R.T.Reed and C.D.Stephens
3. Contemporary orthodontics (Chapter.1 ,Ch. 5,Ch.9 and Ch.17). Willium R.Proffit
4. Introduction to Orthodontics . Laura Mitchellle

# **Paedodontics**

## **Aims:**

During the final year the program in Paedodontics is intended to provide an opportunity for students to acquire knowledge and skills necessary to manage common dental /oral diseases and conditions in child and adolescent patients. This will include learning related to the diagnosis, treatment planning and carrying out dental treatment procedures in child and adolescent patients. The main conditions dealt with are Dental Caries, Dental Trauma, development anomalies, periodontal diseases and oral mucosal diseases

## **Intended learning outcomes:**

On successful completion of learning the students should be able to:

- Be able to assess, plan treatment and carryout basic and specified intricate treatment procedures in the management of common oral and dental diseases and conditions in children and adolescents
- Be able to plan and provide basic treatment/interventions/advice for simple and local dental irregularities in child and adolescent patients
- Be able to identify complex dental treatment needs of children and adolescents (which are beyond the scope of undergraduate training), and to make appropriate referral.

## **Teaching/ learning methods:**

Lectures, clinical demonstrations, Tutorials

## **Semester 1**

### **Lecture topics**

- Early Childhood Caries
- Treatment planning
- Restorative management and maintenance
- Endodontics in Primary Dentition & immature permanent teeth
- Traumatic Injuries of Anterior Teeth in Children –
  - Classification & Diagnosis
  - Treatment planning & Treatment modalities
- Traumatic Injuries of Primary Dentition
- Management of Discoloured teeth

### **Clinical demonstrations & tutorials:**

#### **Tutorials:**

- Treatment planning of Children with multiple caries
- Treatment planning of Children with Traumatized dental Injuries
- Special health care need children

#### **Demonstrations:**

- Dietary analysis and dietary counseling,
- Pulpotomy / Pulpectomy in primary teeth,
- Local anaesthesia,
- RCT in immature permanent anterior tooth,
- Microabration,
- Non- vital bleaching

## **Semester 2**

### **Lecture topics**

- Management of Molar Incisor Hypomineralization and Grossly Carious first molar teeth
- Management of Anxious Child - Pharmacological Approach
- Introduction to Advanced Operative Dentistry in Children
- Dental management of Children with Special Healthcare Needs (CSHN)
- Minor oral Surgery – In Children

**Minimum requirements:**

Procedure	No. expected
History taking	5
Plaque demonstration & OHI	3
Dietary analysis	3
Pulpotomy and pulpectomy in primary teeth	5
GIC / Amalgam	5
Composite restorations	3
Root canal treatment in permanent teeth	2
Fissure sealants	2
Extractions of deciduous teeth	2

**Student assessment:**

In-course assessment	30% (History-10 %, Procedure-10%, Viva-10 %)
Final examination	
Theory	40%
Clinical (OSCE)	30%

**Recommended reading:**

- Handbook of Pediatric Dentistry by AC Cameran and RP Widmer.
1. Paediatric Dentistry by R Welbury, MS Duggal and MT Hosey.
  2. Traumatic Dental Injuries: A Manual by JO Andreasen, LK Bakland, MT Flores and FM Andreasen.
  3. Clinical Problem Solving in Orthodontics and Paediatric Dentistry by D Millett & R Welbury.
  4. McDonald and Avery Dentistry for the Child and Adolescent by JA Dean, DR Avery and RE McDonald

<b>Allocation of marks and Total Marks - Final BDS Part I</b>					
	<b>Theory</b>	<b>In-course</b>	<b>Clinical</b>		<b>Total</b>
1. Community Dentistry	60	25	15		100
2. Dental Material	40				40
3. Restorative	25	15			40
4. Oral Surgery	25	15			40
5. Prosthetic	25	15			40
<b>Total</b>					<b>260</b>

<b>Allocation of marks and Total Marks-Final BDS Part 11</b>					
	<b>Theory</b>	<b>In-course</b>	<b>OSCE</b>	<b>Practical</b>	<b>Total</b>
1. Restorative	40	15	30	25	110
2. Prosthetics	40	15	30	25	110
3. Oral Surgery	40	15	30	25	110
4. Oral Medicine	40	30	30		100
5. Oral Pathology	40	30	30		100
6. Periodontology	40	30	30		100
7. Orthodontics	40	30	30		100
8.Paedodontics	40	30	30		100
<b>Final part II examination total</b>					<b>830</b>
<b>Final part I examination total</b>					<b>260</b>
<b>Grand total</b>					<b>1090</b>

# **Academic Staff Members**

## **Paedodontics**

Prof. R.L. Wijeyeweera  
Dr. V. Vijayakumaran  
Dr. (Ms) E.M.U.C.K. Herath  
Dr(Ms) H.M.S.C.Dissanayake

## **Restorative Dentistry**

Dr. M.C.N. Fonseka  
Prof. K.A.Wettasinghe  
Dr. K.M. Wijerathne  
Dr. (Mrs) D.I. Amaratunga

## **Orthodontics**

Dr. (Ms) V.S.N. Vithanaarachchi  
Prof. (Mrs) S.P.N.P. Nagarathne  
Dr. K.A. Kalyanaratne  
Dr(Ms) Chandima Weerasekera

## **Prosthetic dentistry**

Dr. J.A.V.P. Jayasinghe  
Dr.(Ms)I. P. Thilakumara  
Dr(Ms) R.M.Jayasinghe

## **Oral Pathology**

Dr.(Ms) B.S.M.S.Siriwardana  
Prof. W.M. Tilakaratne  
Dr. (Ms) P.R. Jayasooriya  
Prof. E.A.P.D. Amaratunga

## **Oral Medicine & Radiology**

Dr. R.D. Jayasinghe  
Dr. R.M.H.S.B.Medawela  
Dr(Ms) P.V.S.K. Hettiarachchi  
Dr(Ms) K.M.C.P.Kumari

## **Oral And Maxillo-Facial Surgery**

Dr. P.S.K. Nanayakkara  
Dr. A.M. Attygalla  
Dr. W.M.P.S.K. Wijekoon  
Dr. N.S.S.Jayasuriya  
Dr. K.G.K.D.Kapugama

## **Periodontology**

Dr. (Ms) F. Farook  
Prof. (Mrs) A. Tilakaratne  
Dr. (Ms) D. Leuke Bandara  
Dr. (Ms) K. M. C. P. Kumari

## **Community Dentistry**

Prof. S.L. Ekanayake