



# **Bachelor of Dental Surgery Programme**

## **Course Book II**

### **Semesters 5-8**

**Faculty of Dental Sciences**

**University of Peradeniya**

**2019**



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## INTRODUCTION

The main aim of the Bachelor of Dental Surgery (BDS) is to impart the graduates with knowledge, skills and attitudes necessary to make a significant contribution towards promotion, restitution, preservation and maintenance of acceptable oral health and function, which are integral parts of overall health of an individual.

The first four semesters of the BDS study programme have provided the students with pre-requisite knowledge and skills necessary to commence the second phase of the programme from fifth to eighth semesters. This second phase intends to offer them with supervised hands-on clinical training in dentistry, to make them adequately skilled to proceed to the final stage of clinical training which aims to prepare them for independent practice as General Dental Practitioners.

The fifth semester intends to introduce the students to clinical training under three main clinical streams where the focus will be on an integrated approach to care rather than a discipline-based training. The five courses in the fifth semester are Operative Dental Procedures (ODP) [3101], Population Oral Health 1 (POH 1) [3102], Introduction to Adult Oral Health (IAOH) [3103], Clinical and Diagnostic Oral Sciences I (CDOS 1) [3104] and Child & Adolescent Oral Health Care 1 (CAOH 1) [3105].

During the fifth semester, the students will receive training in professional care on patients, as they begin to manage patients who are in need of basic preventive and operative interventions. Students will also receive further training on clinical skills in a Skills Lab under the course 'Operative Dental Procedures', while the clinical rotations in different clinical streams would provide them with sufficient clinical exposure. They will receive hands-on training under close supervision of the staff.

Upon successful completion of the requirements of the fifth semester, the students will move to the sixth semester where they will be further trained under four courses namely, Population Oral Health 2 (POH 2) [3201], Management of Adult Dental Diseases (MADD) [3202], Clinical and Diagnostic Oral Sciences 2 (CDOS 2) [3203] and Child & Adolescent Oral Health Care 2 (CAOH 2) [3204]. Clinical and practical training in these two semesters will mainly take place in designated clinics within the teaching units of AOH, CDOS and CAOH.

At the end of the sixth semester, a student is expected to acquire knowledge and skills necessary for management of patients with basic dental and oral health care needs.

The seventh semester aims to make the students be more competent in clinical skills as they follow a more integrated approach for patient care under three main clinical streams as courses in AOH, CDOS and CAOH, while they will also be introduced into basic statistics and research methodology which enable them to engage in a research project in the 9<sup>th</sup> semester. Thus, the courses in the seventh semester not only aim to enhance competence in clinical skills for patient care; but to provide a strong underpinning for self-directed learning and evidence-based dentistry. The four courses in the seventh semester are Adult Oral Health Care 1 (AOH 1) [4101], Clinical and Diagnostic Oral Sciences 3 (CDOS 3) [4102], Child & Adolescent Oral Health Care 3 (CAOH 3) [4103] and Basic Statistics & Research Methodology (BSRM) [4104].

Upon successful completion of courses in the seventh semester, the students will move to the eighth semester where they will undergo comprehensive clinical training further under three main streams, AOH, CDOS and CAOH. The three courses are Adult Oral Health Care 2 (AOH 2) [4201], Clinical and Diagnostic Oral Sciences 4 (CDOS 4) [4202] and Child & Adolescent Oral Health Care 4 (CAOH 4) [4203].

Students are expected to follow all appointments diligently, as the initial phase of clinical training (5<sup>th</sup> & 6<sup>th</sup> semesters) and the next level of more advanced skills acquisition would enable them to be competent in clinical skills before they proceed towards the final part of clinical training in the fifth year. Therefore, the training from 5<sup>th</sup> to 8<sup>th</sup> semesters will be crucial in acquiring clinical skills related to the practice of dentistry more independently during 9<sup>th</sup> and 10<sup>th</sup> semesters.

## **5<sup>TH</sup> SEMESTER COURSES**





**Course No: DS 3101**

**Course title: Operative Dental Procedures**

**Credits: 6**

**Pre-requisites: Should have followed all courses of semesters 1 to 4**

**Aims:** The course aims to teach the biological basis and technical aspects of basic investigative and clinical operative procedures in dental practice.

**Intended learning outcomes:**

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

- describe causation, pathogenesis and natural history of common dental/oral diseases,
- perform routine clinical/laboratory dental procedures accurately in a laboratory setting,
- select and carry out intra-oral radiographic techniques with attention to safety of the patient and clinical staff.

**Time Allocation (Hours):                  Lectures: 45                  Practical: 90                  Self learning hours: 165**

**Course content:**

<b>Lectures:</b>	<b>Hour</b>
1. Local anaesthesia-armamentarium and techniques	1
2. Plaque control methods	1
3. Restoration with Amalgam	1
4. Introduction and instruments in exodontia	1
5. Introduction to behavior management strategies in children	1
6. Prosthodontic considerations of the denture bearing area	1
7. Aetiology of malocclusions	2
8. Behavior management strategies in children	1
9. Infections in the head and neck region	3
10. Caries risk assessment	1
11. Pathology of dental caries	1
12. Periodontal assessment I & risk assessment	1
13. Exodontia techniques	1
14. Periodontal assessments II	1
15. Principles of denture retention, support and stability	1
16. Restoration with composites	1
17. Direct veneers	1
18. Assessment of malocclusions	1
19. Complications of exodontia	1
20. Atraumatic restorative technique in children	1
21. Principles of jaw relations and dental articulators	3
22. Classification of malocclusions	3
23. Pulp therapy in the primary dentition	1
24. Interpretation of Radiographs	1
25. Hazards of radiation and radiation protection methods	1
26. Aetiology of periodontal diseases (PDD)	1
27. Pathogenesis of PDD	1
28. Classification of PDD	1
29. Features of artificial dentition	1
30. Indices in Orthodontics	1
31. Orthodontic case assessment	1
32. Periodontal diagnosis & treatment planning	1
33. Concepts and techniques of periodontal debridement	1
34. Non-carious tooth substance loss	1

35. Discolouration of dental hard tissue	1
36. Extra oral radiography	1
37. Processing acrylic dentures & processing errors	1
38. Relining, repair and rebasing of dentures	1
<b>Total</b>	<b>45</b>
<b>Practicals</b>	
1. Restoration with amalgam	5
2. Restoration with composite	5
3. Veneering	3
4. Periodontal debridement	10
5. Anaesthetic techniques	5
6. Extraction techniques	10
7. Intra oral radiography	6
8. Radiographic interpretation	6
9. Dental Laboratory Technology (DLT)	32
10. Pulp Therapy	8
<b>Total</b>	<b>90</b>

#### Recommended References/ Prescribed Textbooks

1. RM Palmer and PD Floyd. 2003. Clinical Guide to Periodontology. 2<sup>nd</sup> ed.
2. TM Roberson et al. 2012. Sturdevant's Art and Science of Operative Dentistry. 6<sup>th</sup> ed.
3. N Garg and A Garg. 2010. Textbook of Operative Dentistry. 2<sup>nd</sup> ed.
4. A Banerjee and TF Watson. 2011. Pickard's Manual of Operative Dentistry. 9<sup>th</sup> ed.
5. G Dimitroulis. 1997. Synopsis of Minor Oral Surgery. 4<sup>th</sup> ed.
6. HJ Wilson. 1987. Dental technology and materials for students. 8<sup>th</sup> ed.
7. SC White and MJ Pharoah. 2004. Oral Radiology. 5<sup>th</sup> ed.
8. RM Basker and JC Devenport. 2011. Prosthetic treatment of the edentulous patient. 5<sup>th</sup> ed.
9. A new classification scheme for periodontal and peri-implant diseases and conditions- introduction and key changes from the 1999 classification (2017 world workshop). Journal of Clinical Periodontology 2018;45:45(suppl 20) S1 – S8.
10. Handbook of Pediatric Dentistry (Fourth Edition), Angus C. Cameron and Richard P. Widmer.
11. Guidelines on Pulp Therapy for Primary and Immature permanent teeth - aapd.org  
[www.aapd.org/media/policies\\_guidelines/g\\_pulp.pdf](http://www.aapd.org/media/policies_guidelines/g_pulp.pdf)
12. V Rangarajan, TV Padmanabhan. Text Book of Prosthodontics. 2<sup>nd</sup> ed.

Assessment		Percentage Marks
In-course		10%-Restoration of teeth 10%-Teeth setting 10% -Periodontal debridement 10% -Exodontia on a manikin
End-semester	Theory	30%- 10 MCQs & 3 SAQs
	Practical	30% - 4 OSCEs/OSPEs

<b>Course No: DS 3102</b>	
<b>Course title: Population Oral Health 1</b>	
<b>Credits: 2</b>	
<b>Pre-requisites: Should have followed all courses of Semesters 1 to 4</b>	
<b>Aims:</b> The course aims to provide an opportunity for the students to view health issues as they affect the population rather than an individual.	
<b>Intended learning outcomes:</b> On successful completion of the course the students should be able to: <ul style="list-style-type: none"> <li>➤ explain the concepts of population oral health,</li> <li>➤ explain the principles of epidemiology, epidemiology of oral diseases/conditions and its relevance to population oral health and clinical practice</li> <li>➤ screen individuals using WHO (World Health Organization) basic methods of oral health surveys</li> </ul>	
<b>Time Allocation (Hours):</b>	<b>Lectures: 15</b> <b>Self-learning hours: 40</b>
<b>Clinical/Field Work: 45</b>	
<b>Course content</b>	
<b>Lectures</b>	<b>Hours</b>
1. Introduction to public health	2
2. Concepts of health and disease	1
3. Measurement of health and disease	1
4. Oral health survey methods including sampling	1
5. Introduction to epidemiology	1
6. Epidemiological study designs	1
7. Epidemiology of dental caries	1
8. Epidemiology of periodontal diseases	1
9. Epidemiology of oral cancer and Oral Potential Malignant Disorders(OPMD)	1
10. Epidemiology of rarer oral diseases	1
11. Demography	1
12. Screening	1
13. Minimum intervention dentistry	1
14. Primary health Care	1
<b>Total</b>	<b>15</b>
<b>Clinical/Field Work</b>	
1. WHO basic methods – Caries	3
2. WHO basic methods- Periodontal diseases	3
3. Public health approaches in prevention	3
4. Evidence based dentistry	3
5. Critical appraisal of literature: Journal club	3
6. Screening for oral cancer	3
7. Questionnaire design	6
8. Oral disease patterns in Sri Lanka	3
9. Screening for oral disease using WHO basic methods	6
10. Atraumatic restorative treatment technique	5
11. Preparation, visit to maternal and child health clinic and discussion	5
12. State of public health in Sri Lanka	2
<b>Total</b>	<b>45</b>

### Recommended References/ Prescribed Textbooks

1. B Daly et al. 2013. Essential Dental Public Health. 2<sup>nd</sup> ed.
2. SS Hiremath. 2011. Text Book of Preventive and Community Dentistry. 2<sup>nd</sup> ed.
3. M Krishna and PL Dasar. 2010. Principles and practice of Public Health Dentistry. 01<sup>st</sup> ed.
4. IG Chestnutt. 2016. Dental Public Health at a Glance. 1<sup>st</sup> ed.

Assessment		Percentage Marks
In-course		20% -3 EMQs
End-semester	Theory	60% - 4 SEQs
	Practical	20% - 4 OSPEs/OSCEs

<b>Course No: DS 3103</b>	
<b>Course title: Introduction to Adult Oral Health</b>	
<b>Credits: 2</b>	
<b>Pre-requisites: Should have followed all courses of semesters 1 to 4</b>	
<b>Aims:</b> The course aims to introduce students to the restorative management of common dental and periodontal diseases and conditions of adult patients.	
<b>Intended learning outcomes:</b> On successful completion of the course the students should be able to: <ul style="list-style-type: none"> <li>➤ assess the dental and periodontal status of an adult accurately to detect common dental and periodontal diseases,</li> <li>➤ identify dental/periodontal treatment needs and formulate simple treatment plans for adult patients,</li> <li>➤ manage common dental/ periodontal diseases and conditions of adult patients by performing basic treatment procedures/preventive measures related to preservation, restoration and replacement of teeth.</li> </ul>	
<b>Time Allocation (Hours):</b>	<b>Clinical work: 90      Self Learning hours: 10</b>
<b>Course content</b>	
<b>Clinicals:</b>	<b>Hours</b>
1. Management of a partially dentate adult with a simple partial denture	30
2. Basic restorations on patients	30
3. Periodontal assessments on patients	30
4. Basic periodontal diagnosis & formulating simple treatment plans	
5. Patient motivation and education on plaque control methods	
6. Basic periodontal treatment/care on patients with mild periodontal disease	
<b>Total</b>	<b>90</b>

### Recommended References/ Prescribed Textbooks

1. Palmer and Floyd. 2003. Clinical Guide to Periodontology. 2<sup>nd</sup> ed.
2. S Reddy. 2011. Essentials of Clinical Periodontology and Periodontics. 3<sup>rd</sup> ed.
3. TM Roberson, HO Heymann, EJ Swift and CM Sturdevant. 2013. Sturdevant's Art and Science of Operative Dentistry. 6<sup>th</sup> ed.
4. N Garg and A Garg. 2010. Textbook of Operative Dentistry. 1<sup>st</sup> ed.
5. A Banerjee and TF Watson. 2011. Pickard's Manual of Operative Dentistry. 9<sup>th</sup> ed.
6. RR Welbury and TA Gregg. 2003. Managing Dental Trauma edited. 1<sup>st</sup> ed.
7. JO Andreasen , FM Andreasen and L Andersson. 2007. Textbook and Color Atlas of Traumatic Injuries to the Teeth. 4<sup>th</sup> ed.
8. M Addy, WM Edgar and G Embery. 2000. Tooth Wear and Sensitivity: Clinical Advances in Restorative Dentistry. 1<sup>st</sup> ed.
9. RM Basker and JC Devenport. 2011. Prosthetic treatment of the edentulous patient. 5<sup>th</sup> ed.
10. V Rangarajan, TV Padmanabhan. Text Book of Prosthodontics. 2<sup>nd</sup> ed.

Assessment		Percentage Marks
In-course		20%- Restoration of teeth 15%-Impression making 15%-Patient education on plaque control methods
End-semester	Clinical	50% - 6 OSCEs/OSPEs

<b>Course No: DS 3104</b>	
<b>Course Title: Clinical and Diagnostic Oral Sciences 1</b>	
<b>Credit value: 2</b>	
<b>Pre-requisites: Should have followed all courses of Semesters 1 to 4</b>	
<b>Aims:</b> The course aims to impart skills in the diagnosis and basic management of common infections of the oro-facial region and to introduce exodontia on patients.	
<b>Intended learning outcomes:</b> On successful completion of the course the students should be able to: <ul style="list-style-type: none"> <li>➤ arrive at a provisional diagnosis of oro-facial infections at a primary care level,</li> <li>➤ decide on the basic investigative procedures required in the management of common diseases/conditions of the oro-facial region,</li> <li>➤ assess the need for minor oral surgical procedures in patients,</li> <li>➤ carry out simple exodontia in patients.</li> </ul>	
<b>Time allocation (Hours):</b>	<b>Clinical work:90      Self-learning hours: 10</b>
<b>Clinicals:</b>	<b>Hours</b>
1. Pathological techniques of oral diagnosis	05
2. Infections of the Oro-Facial Region	15
3. Exodontia and minor oral surgery	70
<b>Total</b>	<b>90</b>

**Recommended References/ Prescribed Textbooks**

1. BW Neville, et al. 2009. Oral and Maxillofacial Pathology. 3<sup>rd</sup> ed.
2. S Warnakulasooriya and WM Tilakaratne. 2014. Oral Medicine and Pathology. 1<sup>st</sup> ed.
3. A Ghom. 2006. Textbook of Oral Medicine. 1<sup>st</sup> ed.
4. TA Turvey et al. 2009. Oral and Maxillofacial Surgery Volume I. 2<sup>nd</sup> ed.

<b>Assessment</b>		<b>Percentage Marks</b>
In-course		40%- Exodontia 10%- Clinical
End-semester	Clinical	50% - 5 OSCEs

<b>Course No: DS 3105</b>	
<b>Course title: Child and Adolescent oral health care 1</b>	
<b>Credits:2</b>	
<b>Pre-requisites: Should have followed all courses from semesters 1 to 4</b>	
<b>Aims:</b> The course aims to introduce students to the management of child/adolescent patients with simple oral/dental diseases and conditions by applying knowledge and skills in basic preventive, interventional/ corrective treatment procedures.	
<b>Intended learning outcomes:</b> On successful completion of the course the students should be able to: <ul style="list-style-type: none"> <li>➤ 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,</li> <li>➤ carry out preventive and basic treatment procedures in the management of dental caries in children and adolescents.</li> </ul>	
<b>Time Allocation (Hours):</b>	<b>Clinical work: 90                      Self Learning: 10</b>
<b>Course content:</b>	
<b>Clinicals:</b>	<b>Hours</b>
1. Introduction to dental care of child patients with simple treatment needs	50
2. Basic orthodontic assessment and diagnosis of a child or adolescent patient with a malocclusion	40
<b>Total</b>	<b>90</b>

**Recommended References/ Prescribed Textbooks**

1. Handbook of Pediatric Dentistry (Fourth Edition), Angus C. Cameron and Richard P. Widmer.
2. Paediatric Dentistry, 4th edition, Richard Welbury , Monty S. Duggal , Marie Therese Hosey
3. Contemporary Orthodontics. 4<sup>th</sup>ed.WRProffit, HW Fields Jr. and DM Sarver. 2007.

<b>Assessment</b>		<b>Percentage Marks</b>
In-course		20%- Assessment of a child patient 20%-Case assessment and diagnosis of malocclusions
End-semester	Clinical	60% - 6 OSCEs





## **6<sup>TH</sup> SEMESTER COURSES**



<b>Course No: DS 3201</b>	
<b>Course title: Population Oral Health 2</b>	
<b>Credits: 2</b>	
<b>Pre-requisites: Should have followed all courses up to the end of 5<sup>th</sup> semester</b>	
<b>Aims:</b> The course aims to provide the students with knowledge and skills necessary to promote oral health, prevent and control oral diseases in the community and issues related to oral health care delivery.	
<b>Intended learning outcomes:</b> On successful completion of the course the students should be able to: <ul style="list-style-type: none"> <li>➤ describe the methods of preventing and controlling common oral diseases at individual and population level</li> <li>➤ describe the organization of services available for provision of oral health care and the various systems in existence, their structure, function, methods of financing, remuneration and limitations</li> <li>➤ explain the principles and concepts of health promotion including health education</li> <li>➤ undertake group / individual health education and carry out clinical preventive dentistry procedures for dental caries and periodontal disease</li> </ul>	
<b>Time Allocation (Hours):</b>	<b>Lectures: 15</b> <b>Self-learning: 40</b> <b>Clinical/Field work: 45</b>
<b>Lectures</b>	<b>Hours</b>
1. Health and environment	2
2. Health education	1
3. Health promotion	1
4. Modes of action of fluoride and fluoride toxicity	1
5. Prevention of dental caries- Systemic fluoride therapy	1
6. Prevention of dental caries- Topical fluoride therapy	1
7. Prevention of dental caries-Fissure sealants	1
8. Diet, nutrition and oral disease	1
9. Prevention of oral cancer	1
10. Prevention of periodontal disease	1
11. Organization of health care delivery systems	1
12. Professionals complimentary to dentistry	1
13. Planning of oral health services including human resources	1
14. Introduction to health economics	1
<b>Total</b>	<b>15</b>
<b>Clinical/Field work</b>	
1. Introduction to preventive Clinic	3
2. Preventive clinic	12
3. Preparation for School Dental Clinic (SDC), Hospital Dental Clinic (HDC) & General Dental Practice (GDP) visits	3
4. Visit to a SDC	4
5. Visit to a HDC	4
6. Visit to a GDP	4
7. Visit to the Regional Dental Surgeon –provincial health services	3
8. Discussion on SDC, HDC & GDP visits	3
9. Health care planning and management	3
10. Health education	6
<b>Total</b>	<b>45</b>

### Recommended References/ Prescribed Textbooks

1. B Daly et al. 2013. Essential Dental Public Health. 2<sup>nd</sup> ed.
2. SS Hiremath. 2011. Text Book of Preventive and Community Dentistry. 2<sup>nd</sup> ed.
3. M Krishna and PL Dasar. 2010. Principles and practice of Public Health Dentistry. 01<sup>st</sup> ed.
4. IG Chestnutt. 2016. Dental Public Health at a Glance. 1<sup>st</sup> ed.

Assessment		Percentage Marks
In-course		20% - 3 EMQs
End-semester	Theory	60% - 4 SEQs
	Practical	20% - 4 OSPEs/OSCEs

<b>Course No: DS 3202</b>	
<b>Course title: Management of Adult Dental Diseases</b>	
<b>Credits: 6</b>	
<b>Pre-requisites: Should have followed all courses up to the end of 5th semester</b>	
<b>Aims:</b> The course aims to advance the clinical competencies of students in restorative management of common dental and periodontal diseases and conditions of adult patients.	
<b>Intended learning outcomes:</b> On successful completion of the course the students should be able to: <ul style="list-style-type: none"> <li>➤ diagnose dental and periodontal diseases/conditions, and identify treatment needs of an adult patient,</li> <li>➤ formulate treatment plans, considering the identified treatment needs of an adult patient,</li> <li>➤ carry out treatment procedures for common dental and periodontal diseases/conditions in an adult patient,</li> <li>➤ provide preventive care and minimal intervention strategies to prevent the progression of diseases/ conditions affecting dental and periodontal tissues</li> </ul>	
<b>Time Allocation (Hours):</b>	<b>Lectures:30      Practical: 30      Clinical: 135</b> <b>Self-learning: 105</b>
<b>Course content:</b>	
<b>Lectures:</b>	<b>Hours</b>
1. Partially dentate patient assessment, treatment planning and treatment options	1
2. Occlusal and periodontal assessment of partially dentate patient	1
3. Introduction to removable partial dentures-classification and components	1
4. Principles of endodontics	1
5. Clinical and laboratory stages involved in removable prosthodontics	1
6. Endodontic diagnosis	1
7. Patient Assessment in endodontics	1
8. Clinical assessment and impression making in complete denture prosthodontics	1
9. Materials and instruments used in endodontics	1
10. Jaw relation registration and selection of teeth in complete denture prosthodontics	1
11. Periodontal re-evaluation	1
12. Occlusion and articulation in complete denture prosthodontics	1
13. Root canal morphology and canal configurations	1
14. Endodontic access and working length estimation	1
15. Root canal preparation using standard and rotary files	2
16. Periodontal diagnosis, prognosis and treatment planning for complex cases	1
17. Management of risk factors in periodontal diseases	1
18. Laboratory stages involved in complete denture construction	1
19. Try-in stage, denture insertion and review in complete denture prosthodontics	1
20. Obturation and obturation techniques	1
21. Complications in endodontics	1
22. Assessment of endodontically treated teeth	1
23. Systemic -periodontal interrelation and clinical considerations	1
24. Restoration of root filled teeth	1
25. Periodontal-endodontic lesions – diagnosis & prognosis	1
26. Treatment of periodontal-endodontic lesions	1
27. Occlusal factors and occlusal traumatism in periodontal disease	1

28. Perio-restorative Interface	1
29. Periodontal management of special care patients	1
<b>Total</b>	<b>30</b>
<b>Practicals:</b>	
1. Dental Laboratory Technology (DLT)	10
2. Endodontics	20
<b>Total</b>	<b>30</b>
<b>Clinicals:</b>	
1. Management of adult partially dentate patients with removable partial dentures	45
2. Endodontic treatment on patients	45
3. Periodontal management of patients with mild to moderate degree of periodontitis	45
<b>Total</b>	<b>135</b>

### Recommended References/ Prescribed Textbooks

1. BS Chong. 2010. Harty's Endodontics in Clinical Practice. 6<sup>th</sup> ed.
2. S Reddy. 2011. Essentials of Clinical Periodontology and Periodontics. 3<sup>rd</sup> ed.
3. Chapple and Gilbert. 2002. Understanding Periodontal Diseases: Assessment and Diagnostic Procedures in Practice. 1<sup>st</sup> ed.
4. Heasman, Preshaw and Robertson. 2004. Successful Periodontal Therapy A Non-Surgical Approach. 1<sup>st</sup> ed.
5. RM Basker and JC Davenport. 2011. Prosthetic treatment of edentulous patients. 5<sup>th</sup> ed.
6. JF McCord and AA Grant. 2000. A clinical guide to complete denture prosthetics. 1<sup>st</sup> ed.

Assessment		Percentage Marks
In-course		10% - Treatment planning for a partially dentate patient 10% - Clinical procedure- Scaling + RSD of a quadrant 10% - RCT on an anterior tooth
End-semester	Theory	30% - 3 SAQs
	Practical/Clinical	40% - 5 OSCEs/OSPEs

<b>Course No: DS 3203</b>	
<b>Course title: Clinical and Diagnostic Oral Sciences 2</b>	
<b>Credit value: 4</b>	
<b>Pre-requisites: Should have followed all courses up to the end of 5th semester</b>	
<b>Aims:</b> The course aims to provide knowledge and skills required for the diagnosis and basic management of oro-facial pain and benign conditions of the oro-facial region. The course also aims to introduce students to the management of emergencies in dental practice.	
<b>Intended learning outcomes:</b> On successful completion of the course the students should be able to: <ul style="list-style-type: none"> <li>➤ describe causation, pathogenesis and natural history of oro-facial pain conditions, other benign conditions of the oro-facial region and necessary management strategies of these conditions,</li> <li>➤ identify appropriate imaging techniques and other investigative procedures in the diagnosis and management of oro-facial diseases/conditions,</li> <li>➤ arrive at a differential diagnosis of oro-facial pain conditions and other benign conditions of the orofacial region,</li> <li>➤ carry out complicated exodontia in patients.</li> <li>➤ recognize emergencies in dental practice and take appropriate action on such situations.</li> </ul>	
<b>Time Allocation (Hours):</b>	<b>Lectures:30                      Clinical work:90                      Self-learning:80</b>
<b>Course content:</b>	
<b>Lectures</b>	<b>Hours</b>
1. Aetiology of oro-facial pain	2
2. Assessment of oro-facial pain	1
3. Management of oro-facial pain	3
4. Benign lesions in the oro-facial region	5
5. Assessment of benign lesions in the oro-facial region	3
6. Management of benign lesions in the oro-facial region	3
7. Management of complicated exodontia and minor oral surgery	7
8. Investigations used in diagnosis of oro-facial diseases/conditions	1
9. Application of intra and extra-oral radiographic methods	1
10. Special imaging modalities in the maxillo-facial region	2
11. Emergencies in dental practice	2
<b>Total</b>	<b>30</b>
<b>Clinical</b>	
1. Oro-facial pain management	20
2. Benign lesions in the oro-facial region	20
3. Management of complicated exodontia	40
4. Application of intra and extra-oral radiographic methods and special imaging modalities in maxillo-facial region	10
<b>Total</b>	<b>90</b>

### Recommended References/ Prescribed Textbooks

1. BW Neville et al.2009.Oral and Maxillofacial Pathology. 3<sup>rd</sup> ed.
2. S Warnakulasooriya and WM Tilakaratne. 2014. Oral Medicine and Pathology. 1<sup>st</sup> ed.
3. A Ghom. 2006. Textbook of Oral Medicine. 1<sup>st</sup> ed.
4. TA Turvey et al. 2009. Oral and Maxillofacial Surgery Volume I and II. 2<sup>nd</sup> ed.
5. SC White and MJ Pharoah. 2009. Oral Radiology. 6<sup>th</sup> ed.
6. RD Jayasinghe. 2012. Dental radiography and radiology for dental students. 1<sup>st</sup> ed.

<b>Assessment</b>		<b>Percentage Marks</b>
In-course-clinical		15% - Complicated exodontia 15% - Assessment and treatment planning of a patient with oro-facial pain/benign oral condition
End-semester	Theory	30% - 3 SAQs
	Practical/Clinical	40% - 6 OSPEs/OSCEs



<b>Course No: DS 3204</b>	
<b>Course title: Child and Adolescent Oral Health Care 2</b>	
<b>Credits:4</b>	
<b>Pre-requisites: Pre-requisites: Should have followed all courses up to the end of 5th semester</b>	
<b>Aims:</b> The course aims to provide an opportunity for students to advance their competency in the management of common oral/dental diseases and conditions in child/adolescent patients.	
Intended learning outcomes: On successful completion of the course the students should be able to: <ul style="list-style-type: none"> <li>➤ diagnose dental and oral diseases/conditions and identify treatment needs of a child/adolescent patient,</li> <li>➤ formulate treatment plans, considering the identified treatment needs of a child/adolescent patient,</li> <li>➤ carry out treatment for dental and oral diseases/conditions by considering overall treatment needs in a child/adolescent patient,</li> <li>➤ carry out emergency and preliminary management of uncomplicated dental trauma in a child/adolescent patient.</li> </ul>	
<b>Time Allocation (Hours):</b>	<b>Lectures:30      Clinical work: 45      Clinical demonstrations: 15</b> <b>Self Learning:110</b>
<b>Lectures :</b>	<b>Hours</b>
1. Dental trauma in children	3
2. Orthodontic tooth movement	2
3. Developmental dental anomalies in children	2
4. Basic principles of orthodontic treatment planning	4
5. Management of traumatic dental injuries	4
6. Management of developmental dental anomalies in children	5
7. Periodontal diseases in children	1
8. Methods of space gaining in orthodontic treatment	1
9. Extraction of teeth in orthodontics	1
10. Principles of removable appliances	4
11. Management of patients with removable appliances	3
<b>Total</b>	<b>30</b>
<b>Clinical works:</b>	
1. Management of patients with caries, dental trauma, developmental anomalies of teeth, periodontal disease and common mucosal lesions	45
2. Treatment planning of simple malocclusions and management with simple removable appliances	
<b>Total</b>	<b>45</b>
<b>Clinical demonstrations</b>	
1. Perform pulp sensibility test	1
2. Radiographic interpretation of traumatic dental injuries	2
3. Radiographic interpretation of developmental anomalies of teeth	2
4. Construction of removable appliances	10
<b>Total</b>	<b>15</b>

### Recommended References/ Prescribed Textbooks

1. Handbook of Pediatric Dentistry (Fourth Edition), Angus C. Cameron and Richard P. Widmer.
2. Paediatric Dentistry Richard Welbury , Monty S. Duggal , Marie Therese Hosey, 4<sup>th</sup> edition,
3. JO Andreasen et al. 2011. Traumatic Dental Injuries: A Manual. 3<sup>rd</sup> ed.
4. Contemporary Orthodontics. 4<sup>th</sup> ed. WR Proffit, HW Fields Jr. and DM Sarver. 2007.
5. The design, Construction and use fo Removable Orthodontic Appliances ,C.Philip Adams, W.John S Kerr– 6<sup>th</sup> Edition
6. An introduction to Orthodontics, Laura Mitchell .– 4<sup>th</sup> ed

Assessment		Percentage Marks
In-course		15% - In-course assessment 1 - Treatment planning of a patient with a simple malocclusion 15% - In-course assessment 2 - Treatment planning of a child patient with common dental diseases
End-semester	Theory	40% - 3 SAQs
	Practical	30% - 4 OSPEs/OSCEs

## **7<sup>TH</sup> SEMESTER COURSES**



**Course No: DS 4101**

**Course title: Adult Oral Health Care 1**

**Credits: 6**

**Pre-requisites: Should have followed all courses up to the end of 6th semester**

**Aims:** This course aims to make the students be more competent in the management of adult oral and dental diseases/conditions by applying routine treatment methods as well as to introduce them to comprehensive treatment strategies in the overall restoration of the dental and oral status.

**Intended learning outcomes:**

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

- Have thorough knowledge and understanding of different treatment options available in the overall dental and oral care of an adult dental patient
- Be able to formulate comprehensive treatment plans for an adult patient
- Be able to explain the advantages and disadvantages of different approaches of treatment
- Be able to provide reasons justifying the selected treatment option for a given patient
- Be able to perform basic surgical procedures on patients
- Be able to provide necessary post-treatment follow-up and maintenance care for an adult dental patient.

**Time Allocation (Hours):      Lectures: 30      Practical: 30      Clinical: 135      Self-learning: 105**

<b>Lectures:</b>	<b>Hours</b>
1. Preparation of denture bearing area prior to complete dentures	1
2. Relevance of existing dentures	1
3. Cast surveying	1
4. Principles of metal casting	1
5. Clinical protocol in partial denture construction	1
6. Removable partial dentures-designing	1
7. Removable partial dentures-mouth preparation	1
8. Removable partial dentures- management of free end saddle	1
9. Transition from natural to artificial dentition	2
10. Periodontal treatment planning for patients with complex treatment needs	1
11. Case selection for surgical periodontal therapy	1
12. Principles in periodontal surgery	1
13. Basic surgical procedures in periodontal therapy	1
14. Antimicrobials in periodontal therapy	2
15. Acute periodontal diseases/conditions	1
16. Introduction to indirect restorations	1
17. Classification of crowns	1
18. Patient assessment for indirect restorations	1
19. Principles of dental aesthetics and assessment of aesthetics	1
20. Principles of tooth preparation for indirect restorations	1
21. Impression materials and techniques of crown and bridgework	1
22. Provisional crowns and techniques	1
23. Laboratory techniques in crown and bridge	1
24. Cementation and post operative care	1

25. Endodontic complications and introduction to surgical endodontics	1
26. Designing of complete dentures -appearance	1
27. Designing of complete dentures-occlusal and muscle balance	1
28. Oral health care in aging population	1
<b>Total</b>	<b>30</b>
<b>Practicals:</b>	
1. Crown preparations/impression making and temporization on extracted/typodont teeth	30
2. Casting techniques	
<b>Total</b>	<b>30</b>
<b>Clinicals:</b>	
Management of adult patients with multiple restorative treatment needs (Restoration of space with removable partial dentures, management of moderate to advanced degree of periodontitis, endodontic treatment including endodontic complications, crowns and post retained crowns)	135
<b>Requirement – All students should maintain a log book of cases under AOH courses from 7<sup>th</sup> semester onwards (AOH 1- AOH 4). Log book with all cases recorded will be assessed during the 10<sup>th</sup> semester under AOH 4.</b>	
<b>Total</b>	<b>135</b>

#### Recommended References/ Prescribed Textbooks

1. Heasman, Preshaw & Robertson. 2004. Successful Periodontal Therapy A Non-Surgical Approach. 1<sup>st</sup>ed.
2. Warnakulasuriya & Tilakaratne. 2014. Oral Medicine & Pathology - A guide to Diagnosis and Management. 1<sup>st</sup>ed.
3. Edited by M O’Sullivan. 2004. Fixed Prosthodontics in Dental Practice. 1<sup>st</sup>ed.
4. Edited by D Bartlett and D Ricketts. 2007. Indirect Restorations. 1<sup>st</sup>ed.
5. Edited by R Wassell, A Naru, J Steele and F Nohl. 2008. Applied Occlusion. 1<sup>st</sup>ed.
6. David Bartlett and PA Brunton. 2005. Aesthetic Dentistry. 1<sup>st</sup>ed.
7. JC Devenport, RM Basker, JP Ralph and PO Glantz. 2000. A clinical guide to removable partial dentures. 2<sup>nd</sup>ed.

Assessment		Percentage Marks
In-course	Clinical	10% - Clinical 1- removable prosthesis on a partially dentate patient 10% - Clinical 2- periodontal treatment planning of a patient with periodontitis 10% Clinical 3- Preparation of an anterior tooth for a porcelain fused to metal crown on a phantom head
End-semester	Theory	30% - 3 SAQs
	Practical/Clinical	40% - 6 OSCEs/OSPEs

**Course No: DS 4102**

**Course title: Clinical and Diagnostic Oral Sciences 3**

**Credit value: 6**

**Pre-requisites: Should have followed all courses up to the end of 6<sup>th</sup> semester**

**Aims:** This course aims to provide an opportunity for students to acquire the knowledge and skills required for the diagnosis and basic management of oral potentially malignant disorders (OPMD) and oral cancer, temporomandibular disorders and oral manifestations of systemic diseases.

**Intended learning outcomes:**

On successful completion of learning the students should:

- Demonstrate knowledge in the causation, pathogenesis and natural history of temporomandibular disorders (TMDs) and to have sufficient skills in the management of TMDs
- Diagnose/detect/ suspect oral cancer, pre-malignant conditions, patients at risk or the presence of predisposing factors, and to be aware of their management procedures / advice patients with empathy
- Refer patients appropriately for definitive / advanced treatment of the above conditions
- Demonstrate knowledge of the causation, pathogenesis and natural history of oral manifestations of systemic diseases, be able to manage them at the primary care level and refer patients appropriately for advanced treatment.

**Time Allocation (Hours): Lectures 30 Practical 30 Clinical demonstrations 10 Clinical 105, Self-learning 125**

<b>Lectures:</b>	<b>Hours</b>
1. Etiology and pathogenesis of OPMDs and oral cancer	3
2. Clinical features of OPMDs and oral cancer	1
3. Clinico-pathological correlation of OPMD and oral cancer	2
4. Early diagnosis of OPMDs and oral cancer and diagnostic aids	1
5. Treatment of OPMD and oral cancer	4
6. Effects of radiation/ chemotherapy on oral tissues	1
7. Post-operative follow up of cancer patients	1
8. Rehabilitation of patients with OPMDs and oral cancer	1
9. Role of a dental surgeon in the management of OPMD/ oral cancer	1
10. Applied anatomy of the masticatory apparatus	1
11. Epidemiology, etiology and classification of TMDs	1
12. Clinical features of TMDs	1
13. Diagnostic criteria, imaging and other special investigations for TMDs	1
14. Treatment modalities for TMDs	2
15. Clinical features of oral manifestations of systemic diseases	2
16. Pathology of oral manifestations of systemic diseases	2
17. Oral manifestations of immune-mediated diseases	1
18. Etiology and pathogenesis of fibro-osseous lesions	1

19. Clinical features and management of fibro-osseous lesions	1
20. Oral pigmentation	1
21. Adverse effects of drug therapy on oral tissues	1
<b>Total</b>	<b>30</b>
<b>Practical -Histopathology:</b>	
1. OPMDs and oral cancer	30
2. Oral manifestations of systemic diseases	
3. Immune-mediated diseases	
4. Fibro-osseous lesions	
<b>Total</b>	<b>30</b>
<b>Clinical demonstrations:</b>	
1. OPMDs and oral cancer- diagnosis and early detection	10
2. TMDs	
<b>Total</b>	<b>10</b>
<b>Clinical:</b>	
1. OPMDs and oral cancer	105
2. TMDs	
3. Oral manifestations of systemic diseases	
<b>Total</b>	<b>105</b>

#### Recommended References/ Prescribed Textbooks

1. BW Neville, DD Damm, CM Allen and JE Bouquot. 2009. Oral and Maxillofacial Pathology. 3<sup>rd</sup>ed.
2. S Warnakulasooriya and WM Tilakaratne. 2014. Oral Medicine and Pathology. 1<sup>st</sup>ed.
3. A Ghom. 2006. Textbook of Oral Medicine. 1<sup>st</sup>ed.
4. TA Turvey, JR Scully, PD Whaite, BJ Costelo and RL Ruiz. 2009. Oral and Maxillofacial Surgery Volumell. 2<sup>nd</sup>ed.
5. E Odell and R Cawson. 2008. Essentials of Oral Medicine and Pathology. 8<sup>th</sup>ed.

Assessment		Percentage Marks
In-course	Clinical	15% - 01 clinical case (OPMD/oral cancer)
	Theory	15% -10 MCQs
End-semester	Theory	30% - 03 SAQs
	Practical/Clinical	40% - 06 OSCEs/OSPEs



<b>Course No: DS 4103</b>	
<b>Course title: Child and Adolescent Oral Health Care 3</b>	
<b>Credits: 04</b>	
<b>Pre-requisites: Should have followed all courses up to the end of 6<sup>th</sup> semester</b>	
<b>Aims:</b> This course aims to provide the students with knowledge and skills necessary in the diagnosis, treatment planning and in carrying out dental treatment procedures in child and adolescent patients and children with special health needs.	
<b>Intended learning outcomes:</b> On successful completion of the course the students should be able to: <ul style="list-style-type: none"> <li>➤ be able to demonstrate sufficient knowledge in common oral diseases and conditions in children and adolescents</li> <li>➤ be able to diagnose common oral diseases and conditions in children and adolescents</li> <li>➤ Be able to plan treatment for common dental/oral diseases and conditions in child and adolescent patients</li> <li>➤ Be able to treat common dental/oral diseases and conditions in child and adolescent patients including simple malocclusions.</li> <li>➤ Be able to manage common oral diseases in children with special health needs.</li> </ul>	
<b>Time Allocation (Hours):      Lectures: 15      Clinical demonstrations:15      clinical: 90</b>	
<b>Self-learning: 80</b>	
<b>Lectures:</b>	<b>Hours</b>
1. Endodontics in children	3
2. Complex restorative procedures in children	1
3. Oral lesions in children	1
4. Pharmacological management of the anxious child	1
5. Timing of orthodontic treatment	1
6. Implications of growth in orthodontics	2
7. Introduction to functional appliances	1
8. Management of patients with functional appliances	2
9. Fixed orthodontic therapy	1
10. Post orthodontic retention and stability	2
<b>Total</b>	<b>15</b>
<b>Clinical demonstrations:</b>	
1. Pulp therapy in primary teeth	15
2. Pulp therapy in permanent immature teeth	
3. Treatment of teeth with developmental anomalies	
4. Bite registration in functional appliances	
5. Designing, delivery of removable and functional appliances	
6. Fixed orthodontic appliances	
7. Orthodontic retainers	
<b>Total</b>	<b>15</b>
<b>Clinical:</b>	
1. Pulp therapy of deciduous teeth	
2. Endodontics in immature permanent anterior teeth	

3. Pharmacological management of an anxious child	90
4. Management of patients with class II malocclusions with growth modification appliances	
5. Management of patients with orthodontic retainers	
6. Fixed orthodontic appliances	
<b>Total</b>	<b>90</b>

### Recommended References/ Prescribed Textbooks

4. JO Andreasen et al. 2011. Traumatic Dental Injuries: A Manual. 3<sup>rd</sup>ed.
5. R Welbury et al. 2012. Paediatric Dentistry. 4<sup>th</sup>ed.
6. AC Cameran and RP Widmer. 2013. Handbook of Pediatric Dentistry. 4<sup>th</sup>ed.
7. WR Proffit, HW Fields Jr. and DM Sarver. 2007. Contemporary Orthodontics. 4<sup>th</sup>ed.

Assessment		Percentage Marks
In-course	Clinical	15% - Clinical case 1 15% - Clinical case 2
	Theory	30% -10 MCQs and 2 SAQs
End-semester	Practical	40% - 6 OSCEs/OSPEs

<b>Course No: DS 4104</b>	
<b>Course title: Basic Statistics and Research Methodology</b>	
<b>Credits: 2</b>	
<b>Pre-requisites: None</b>	
<b>Aims:</b> The course aims to give an understanding in basic statistics and research methodology required for a dental graduate to effectively engage in evidence-based dentistry and self-directed learning, and to carry out a basic research and disseminate reliable information.	
<b>Intended learning outcomes:</b> On successful completion of the course the students should be able to: <ul style="list-style-type: none"> <li>➤ Appreciate the value of evidence-based dentistry and the role of research</li> <li>➤ Engage in evidence-based dentistry</li> <li>➤ Demonstrate an understanding of the principles of biostatistics and research methodology as applied to the various fields of dentistry.</li> </ul>	
<b>Time Allocation (Hours):      Lectures: 20   Discussions: 10   Self learning: 70</b>	
<b>Course content:</b>	
<b>Lectures:</b>	<b>Hours</b>
1. Scientific Information and evidence-based practice	1
2. Scientific method and the research process	2
3. Scales of measurement	1
4. Data reduction and presentation	1
5. Descriptive statistics in parametric and non-parametric methods	2
6. Probability and distributions	1
7. Hypothesis testing and inferential statistics	1
8. Comparing two means	1
9. Comparing proportions	1
10. Correlation and regression	1
11. Conceiving a good research question	1
12. Structure and function of research	1
13. Generalizability findings	2
14. Sampling and sample size	2
15. Measurements and sources of error	1
16. Research types and designs	1
<b>Total</b>	<b>20</b>
<b>Discussions:</b>	
3. Using scientific literature with open source reference management software	2
4. Calculation of measures of central tendency and dispersion	4
5. Principles of questionnaire design	2
6. Writing a research proposal	2
<b>Total</b>	<b>10</b>
<b>Students have the flexibility in carrying out research project in community, laboratory and clinical setting.</b>	

#### Recommended References/ Prescribed Textbooks

1. S Boslaugh and PA Watters. 2012. Statistics in a Nutshell. 2<sup>nd</sup> ed.
2. SP Glasser. 2014 Essentials of Clinical Research. 2<sup>nd</sup> ed.
3. JE Mauch and N Park. 2003. Guide to the Successful Thesis and Dissertation. 5<sup>th</sup> ed.
4. R Kumar. 2014. Research Methods: a step-by-step guide for beginners. 4<sup>th</sup> ed.

5. MJ Campbell and TDV Swinscow. 1996. Statistics at Square One. 9<sup>th</sup> ed.
6. MJ Campbell. 2006. Statistics at Square Two: Understanding Modern Statistical Applications in Medicine. 2<sup>nd</sup> ed.
7. RW Pallegama and RO Thattil. 2014. Basic Statistics for Dental Students. 1<sup>st</sup> ed.
8. RW Pallegama and RO Thattil. 2016. Research Methodology Simplified: A Textbook for Students of Health Sciences with Instructions for self-learning and practice.

<b>Assessment</b>		<b>Percentage Marks</b>
In-course	Theory	05% - Quiz 25% -10 MCQs
End-semester	Theory	70% - 3 SAQs

## **8<sup>TH</sup> SEMESTER COURSES**



<b>Course No: DS 4201</b>	
<b>Course title: Adult Oral Health Care 2</b>	
<b>Credits: 6</b>	
<b>Pre-requisites: Should have followed all courses up to the end of 7<sup>th</sup> semester</b>	
<b>Aims:</b> This course aims to empower students in decision-making skills in treatment planning in the overall restorative management of an adult patient. They should be able to perform selected advanced procedures during the process of overall restorative rehabilitation.	
<b>Intended learning outcomes:</b> On successful completion of the course the students should be able to: <ul style="list-style-type: none"> <li>➤ Demonstrate an adequate knowledge and skills to formulate comprehensive treatment plans that include plans for advanced treatment methods.</li> <li>➤ Critically discuss the treatment plans designed for individual patients in the total restorative rehabilitation.</li> <li>➤ Carry out clinical procedures routinely practiced on patients sufficient for the level of a general dental practitioner</li> <li>➤ Carry out clinical procedures involved in the rehabilitation of adult patients</li> </ul>	
<b>Time Allocation (Hours):</b>	<b>Lectures: 30    Clinical demonstrations: 15    Clinical: 135</b>
<b>Self-learning:</b>	<b>120</b>
<b>Course Content:</b>	
<b>Lectures:</b>	<b>Hours</b>
1. Special impression techniques	1
2. Dental care for the elderly	1
3. Assessment and management of denture complaints- I, II	2
4. Maxillo-facial prosthodontics –I, II	2
5. Splints, stents and mouth guards	1
6. Additional retentive aids, magnets and precision attachments	1
7. Dental implants	5
8. Muco-gingival surgery and soft tissue grafts	1
9. Periodontal flap designs and bone grafts	1
10. Management of furcation involved teeth	1
11. Periodontal regeneration and wound healing	1
12. Treatment planning modifications for patients with periodontal surgical care needs	1
13. Introduction and classification of bridges	1
14. Patient assessment and preparation of patients for bridges	1
15. Preparation techniques for bridges	1
16. Design principles of pontics, abutments and bridges	1
17. Complications of crown and bridgework	1
18. Management of complex cases with fixed prosthodontics	1
19. Tooth preparation for inlay, onlay and veneer	1
20. Restoration of a grossly broken down tooth	1
21. Rehabilitation of a patient with dental trauma	1
22. Rehabilitation of a patient with tooth wear	1
23. Periodontal restorative interface	1
24. Orthodontic restorative interface	1
<b>Total</b>	<b>30</b>
<b>Clinical:</b>	
Management of edentulous patients with conventional complete dentures.	
Management of adult patients with multiple restorative treatment needs (restoration	135

of space with removable and fixed prosthesis, management of patients with advanced periodontitis)	
<b>Continue to maintain a log book for AOH courses</b>	
<b>Total</b>	<b>135</b>
<b>Clinical Demonstrations:</b>	
1. Special impression techniques: anterior window technique	1
2. Special impression techniques: neutral zone impression	1
3. Special impression techniques: copy dentures	2
4. Relining –clinical procedure	1
5. Types of bridges and preparation principles	2
6. Preparation of a bridge on typodont teeth	2
7. Preparation of a bridge on a patient	2
8. Build up of a grossly broken-down tooth	2
9. Implant placement on a patient	2
<b>Total</b>	<b>15</b>

### Recommended References/ Prescribed Textbooks

1. D Williams, FJ Hughes, EW Odell and P Farthing. 2008. Pathology of Periodontal Disease. 8<sup>th</sup>ed.
2. J Lindhe. 2008. Clinical Periodontology and Implant Dentistry. 5<sup>th</sup>ed.
3. Edited by: M O’Sullivan. 2004. Fixed Prosthodontics in Dental Practice. 1<sup>st</sup>ed.
4. Edited by D Bartlett and D Ricketts. 2007. Indirect Restorations. 1<sup>st</sup>ed.
5. RM Basker and JC Davenport. 2011. Prosthetic treatment of the edentulous patient. 5<sup>th</sup>ed.

Assessment		Percentage Marks
In-course	Clinical	10% - Patient 1 (Assessment of a follow-up patient who was managed with complete dentures)
		20% - Patient 2 (Assessment of a follow-up patient who was treated for multiple restorative needs, and carryout a given treatment procedure)
End-semester	Theory	30% - 3 SAQs
	Practical/Clinical	40% - 6 OSPEs/OSCEs



**Course No: DS 4202**

**Course title: Clinical and Diagnostic Oral Sciences 4**

**Credit value: 6**

**Pre-requisites: Should have followed all courses up to the end of 7th semester**

**Aims:** This course aims to provide an opportunity for students to acquire knowledge and skills required for the diagnosis and management of salivary gland disorders, oral ulceration, maxillofacial anomalies, maxillofacial trauma and to impart sufficient knowledge in Forensic Odontology.

**Intended learning outcomes:**

On successful completion the students should be able to:

- Demonstrate knowledge of the causation, pathogenesis and natural history of salivary gland disorders and oral ulceration, and have sufficient skills in the management of these conditions
- Demonstrate sufficient knowledge in the diagnosis and management of maxillofacial anomalies and maxillofacial trauma
- Carry out an assessment on a patient with maxillofacial anomalies and maxillofacial trauma
- Refer patients appropriately for definitive / advanced treatment of the above conditions
- Demonstrate good knowledge in Forensic Odontology and to demonstrate sufficient skills in using the knowledge in the appropriate management of cases.

**Time Allocation (Hours):      Lectures: 30      Practical: 30      Clinical: 150      Self learning: 90**

<b>Lectures</b>	<b>Hours</b>
1. Etiopathogenesis and clinico- pathology of salivary gland diseases(SGD)	4
2. Surgical & non-surgical management of SGD	2
3. Xerostomia and its effects on oral tissues	1
4. Etiopathogenesis and clinico-pathology of oral ulceration	3
5. Management of oral ulcers	1
6. Craniofacial anomalies	2
7. Management of cleft lip and palate	1
8. Management of soft tissue anomalies of the oral cavity	1
9. Multidisciplinary management of jaw deformities	2
10. Forensic Odontology	5
11. Epidemiology, causes, clinical features of maxillofacial trauma	2
12. Imaging for maxillofacial trauma	1
13. Management of maxillofacial injuries	1
14. Basics in the management of fractures of the mandible and middle third of the facial skeleton and prevention of maxillofacial trauma	3
15. Post-operative management of maxillofacial injuries	1

	<b>Total</b>	<b>30</b>
<b>Practical</b>		
1. Histopathology of salivary gland disorders		30
2. Histopathology of oral ulceration		
3. Forensic odontology		
<b>Total</b>		<b>30</b>
<b>Clinical</b>		
1. Salivary gland disorders		150
2. Oral ulceration		
3. Maxillo-facial anomalies/ cleft lip and palate		
4. Maxillofacial trauma		
	<b>Total</b>	<b>150</b>

### Recommended References/ Prescribed Textbooks

1. BW Neville, DD Damm, CM Allen and JE Bouquot. 2009. Oral and Maxillofacial Pathology. current ed.
2. S. Warnakulasooriya and WM Tilakaratne. 2014. Oral Medicine and Pathology. current ed.
3. MS Greenberg and M Glick. 2003. Burket's Oral Medicine. current ed.
4. TA Turvey, JR Scully, PD Whaite, BJ Costelo and RL Ruiz. 2009. Oral and Maxillofacial Surgery Volume, III. current ed.
5. E Odell and R Cawson. 2008. Essentials of Oral Medicine and Pathology. current ed.
6. C Scully. 2013. Oral and Maxillofacial Medicine. current ed.
7. *Raymond J. Fonseca DMD, H. Dexter Barber. 2012, Oral and Maxillofacial Trauma.*
8. *U. J. Moore. 2011. Principles of Oral and Maxillofacial Surgery.*
9. Raymond J. Fonseca DMD , 2017 .Oral and Maxillofacial Surgery: 3-Volume Set.

### Assessments

Assessment		Percentage Mark
In-course	Theory	15% - 10 MCQs
	Clinical	15% - 4 OSCEs
End-semester	Theory	30%- 3 SAQs
	Practical/Clinical	40%- 06 OSCEs/OSPEs

<b>Course No: DS 4203</b>	
<b>Course title: Child and Adolescent Oral Health Care 4</b>	
<b>Credits: 04</b>	
<b>Pre-requisites: Should have followed all courses up to the end of 7<sup>th</sup> semester</b>	
<b>Aims:</b> This course aims to make the students competent in delivering oral health care to child and adolescent patients. This also aims to empower them in decision making on referrals for tertiary care.	
<b>Intended learning outcomes:</b> On successful completion of the course the students should: <ul style="list-style-type: none"> <li>➤ Be able to assess, plan treatment and carry out basic and specified intricate treatment procedures in the management of common oral and dental diseases and conditions in children and adolescents and children with special health needs.</li> <li>➤ Be able to plan and provide basic treatment/interventions/advice for simple and local dental irregularities in child and adolescent patients</li> <li>➤ Be able to identify complex dental treatment needs of children and adolescents, and to make appropriate referral.</li> </ul>	
<b>Time Allocation (Hours):      Lectures: 15 Clinical: 135      Self-learning: 50</b>	
<b>Lectures:</b>	<b>Hours</b>
1. Comprehensive dental care for children and adolescents and children with special health care needs	5
2. Fixed orthodontic appliances	2
3. Role of the general dental practitioner in orthodontic practice	2
4. Interceptive orthodontics	5
5. Case selection and management of patients with class II malocclusion with simple removable appliances	1
<b>Total</b>	<b>15</b>
<b>Clinical:</b>	
1. Pharmacological approaches in the management of an anxious child	135
2. History taking and treatment planning for children with special health care needs	
3. Management of children with dental caries, dental trauma, gingival diseases, mucosal diseases and developmental dental anomalies	
4. Management of malocclusions with removable appliances	
5. Management of malocclusions with functional appliances	
6. Management of patients with interceptive orthodontics	
7. Fixed orthodontic appliances	
<b>Total</b>	<b>135</b>

### Recommended References/ Prescribed Textbooks

1. WR Proffit, HW Fields Jr. and DM Sarver. 2007. Contemporary Orthodontics. 4<sup>th</sup>ed.
2. JO Andreasen et al. 2011. Traumatic Dental Injuries: A Manual. 3<sup>rd</sup>ed.
3. R Welbury et al. 2012. Paediatric Dentistry. 4<sup>th</sup>ed
4. AC Cameran and RP Widmer. 2013. Handbook of Pediatric Dentistry. 4<sup>th</sup>ed.

Assessment		Percentage Marks
In-course		15%- Patient 1 15%- Patient 2 (Assessment and treatment planning of child patients with multiple treatment needs and carryout a given treatment procedure)
End-semester	Theory	10% - 06 MCQs 20% - 02 SAQs
	Practical	40% - 07 OSCEs/OSPEs