



SHRI
DHARMASTHALA
MANJUNATHESHWARA
UNIVERSITY

Ordinance Governing
III BDS Course
2021-22

Amended up to November, 2022

SHRI DHARMASTHALA MANJUNATHESHWARA UNIVERSITY

(A State Private University established under the Shri Dharmasthala Manjunatheshwara University
Act No 19 of 2018 of Government of Karnataka and Notification No. ED 261 URC 2018 dated 19th December 2018)

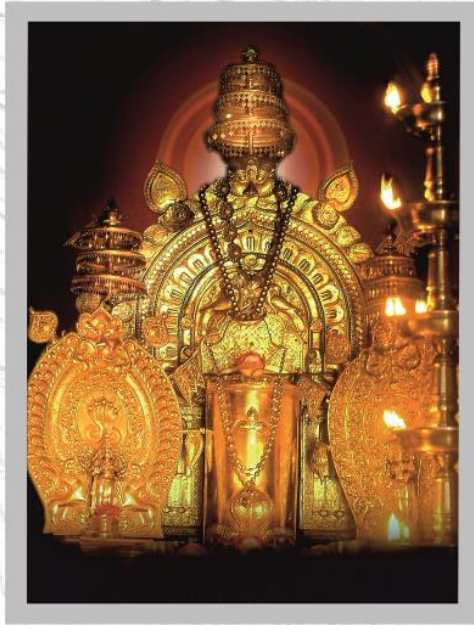
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|| Om Shri Manjunathaya Namaha ||



Shree Kshethra Dharmasthala

Edition Year : 2021-22

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THE LOGO

Poojya Dr D. Veerendra Heggade, Hon'ble Chancellor of the University, while searching for an appropriate Logo for the University, saw a photograph picked from Temple Architecture showing Wings of a Bird, sculpted in Indian style and wanted it to be incorporated in the logo for the University, as the Wings symbolize 'Spreading of Knowledge beyond Boundaries'. Further it was felt that the Central theme of the logo should be 'Rudra' (The Linga) with wings on each side. In this way, the logo of the University was conceptualized.

Hence:

1. The central part represents **Rudra** who Demolishes Darkness.
2. The Three **horizontal lines on The Linga** stand for Samyak Darshan (Right Belief), Samyak Gyan (Right Knowledge) and Samyak Charitra (Right Conduct).
3. The **Wings** symbolize spreading of Knowledge across the boundaries.
4. Base line "**Truth Liberates**" highlights the Purpose of Education: to liberate oneself unconditionally. It shows that it is not discipline, nor knowledge nor the efforts to freedom that liberate but Truth is what liberates you from all your conditioning and ignorance.

The overall significance of Shri Dharmasthala Manjunatheshwara University's Logo is:

Darkness of ignorance is destroyed by the flow of knowledge to bring Liberty to everyone, by realizing the truth. And, it should spread globally without the boundaries as hindrance.



SHRI
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UNIVERSITY

VISION

Shri Dharmasthala Manjunatheshwara University will set the highest standards of teaching and learning by awakening the intelligence of the students and nurturing the creativity hidden in them by creating an environment where the ancient wisdom blends with modern science, to transform them into whole human beings to face the challenges.

MISSION

- ▶ To ensure that the journey of education is inspiring, pleasant and enjoyable.
- ▶ Attract the best of teachers and students.
- ▶ Achieve high principles of trust, love and spirituality in the students.
- ▶ Create a collaborative, diverse and exclusive community.
- ▶ Transform the student of today to be a leader of tomorrow and a better human being.
- ▶ Produce passionate teachers.
- ▶ Evolve innovative teaching techniques.
- ▶ Create a peaceful environment.
- ▶ Prepare the student to face the social challenges.
- ▶ Create a University of which the Nation is proud of.
- ▶ Be an effective partner in Nation Building.
- ▶ Create an Eco-friendly University.
- ▶ Create a University based on the principles of beauty, love and justice.

||Om Shanti! Om Shanti! Om Shanti||



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SDMU/ACAD/BDS/F-4/Notf-193/350/2021

Date: 29-12-2021

NOTIFICATION

Ordinance governing Curricula of BDS Year III - 2021

- Ref:
1. Revised BDS Course Regulations 2007 by Dental Council of India notified on 25-07-2007 and its periodical amendments
 2. Minutes of the 5th Meeting of Academic Council
(Ref. No. SDMU/AC/M5/F-28/626/2021 Dated: 10-12-2021)
 3. Minutes of the 4th Meeting of Board of Studies - Dental UG held on 13.02.2021

In exercise of the powers conferred under Statutes 1.4 (Powers and functions - Para ix & x) & 1.8 (Powers and functions - Para i) of Shri Dharmasthala Manjunatheshwara University, the Academic Council has accorded its approval for the notification on the ordinance governing the Curricula of BDS Year III - 2021.

The ordinance shall be effective from the date of notification.

Lt. Col. U. S. Dinesh (Retd.)
REGISTRAR
REGISTRAR,
Shri Dharmasthala Manjunatheshwara
University, Dharwad

To: The Principal, SDM College of Dental Sciences & Hospital.

Copy for information to:

1. Hon'ble Chancellor, Shri Dharmasthala Manjunatheshwara University, Dharwad
2. Vice Chancellor - Shri Dharmasthala Manjunatheshwara University.
3. Pro Vice-Chancellor (Academics) - Shri Dharmasthala Manjunatheshwara University.
4. Controller of Examinations, Shri Dharmasthala Manjunatheshwara University.
5. Chairperson, Board of Studies - Dental UG
6. University Office for Records File
7. Office of the Registrar



CONTENTS

Sl. No.	Department Name
1	General Medicine
2	General Surgery
3	Oral Pathology & Microbiology
4	Oral Medicine & Radiology
5	Conservative Dentistry & Endodontics
6	Oral & Maxillofacial Surgery
7	Prosthodontics & Crown and Bridge
8	Orthodontics & Dentofacial Orthopaedics
9	Pedodontics Private Dentistry
10	Periodontology

**CURRICULUM OF STUDY FOR
III YEAR BDS**

GENERAL MEDICINE

1. Course Content

- Aims and objectives : Relevant General Medicine topics and common General Medicine topics a Dental undergraduate should know
- Teaching hours :
- Lecture hours – 52 hours
- Practical hours – 90 hours [General Hospital]
- Total – 52 + 90 hours

Topic	Must know topics	Desirable to know topics	Teaching methodology with hours
	Aims of Medicine, Definition of diagnosis, Treatment and prognosis	Genetics and disease Medical ethics	2 Lecture Assignment on the related topics [desirable to know topics]
Respiratory System	RS Applied anatomy and physiology Pneumonia, COPD, Bronchial Asthma, Pulmonary Tuberculosis, Pleural Effusion, Pulmonary embolism, Acute respiratory tract infections, Suppurative lung disease, Lung abscess	Lung cancer, ARDS, Bronchiectasis, Sleep Apnoea, Respiratory failure, Empyema	5 Lecture Assignment on the related topics [desirable to know topics]
Infections	Enteric fever, HIV, Malaria, Herpes- HSV and HZV, Viral hepatitis, Diphtheria, Syphilis, Actinomycosis	Infectious mononucleosis, Mumps, Measles, Rubella, Leprosy, Immune system – organisation and function	5 Lecture Assignment on the related topics [desirable to know topics]

GIT	Hepatitis – Acute and Chronic, Acid Peptic Disease, Jaundice, ascites, Portal Hypertension, Hepatotoxic drugs, Amoebiasis, Dysphagia, Stomatitis, Gingival Hyperplasia, Tender Hepatomegaly	H.Pylori, Diarrhea, Dysentery, Malabsorption	5 Lecture Assignment on the related topics [desirable to know topics]
CVS	Rheumatic fever, Valvular Heart Disease, IHD, MI, Infective Endocarditis	Hypertension, Common Arrhythmias, classification of Congenital Heart Disease, Heart failure	7 Lecture Assignment on the related topics [desirable to know topics]
Haematology	Haematopoiesis, Anaemia, Clotting and Bleeding disorders, AML,CML,Neutropenia , Agranulocytosis, Splenomegaly, Lymphomas, Oral manifestation of Haematologic disorders	Blood transfusion, DIC, Thromboembolic disease, Oncogenesis	7 Lecture Assignment on the related topics [desirable to know topics]
CNS	Headache, Facial palsy, Facial pain, Trigeminal Neuralgia, Epilepsy	Meningitis, Anticonvulsants,	5 Lecture Assignment on the related topics [desirable to know topics]

2. Teaching schedule for theory

Renal	UTI , Nephritis, Nephrotic syndrome	RFT, CKD	4 Lecture Assignment on the related topics [desirable to know topics
Nutrition	Balanced diet, Vitamins, PEM, Fluorosis, Calcium and Phosphorous Metabolism,	Osteomalacia, Osteoporosis	4 Lecture Assignment on the related topics [desirable to know topics
Endocrine	Diabetes Mellitus, Acromegaly, Hypothyroidism	Addison, Cushing, Parathyroid disorders, Acute adrenal insufficiency, Perioperative DM evaluation	5 Lecture Assignment on the related topics [desirable to know topics
Critical Care Medicine and Miscellaneous	Anaphylaxis, Syncope, CPR, Allergy, Angioneurotic Edema , Adverse drug interactions	LVF, ARDS, Cardiogenic shock, Coma, RA, OA, Scleroderma	3 Lecture Assignment on the related topics [desirable to know topics

3. Teaching schedule for clinical / practical's

5 complete cases must be written in record books before final examination

1	History taking	Must know
2	General physical examination : Pulse, BP, BMI, Temperature, Edema, Clubbing, Jaundice, Lymphadenopathy, Oral, Cavity	Must know
3	Respiratory system – Inspection, Palpation, Percussion , Auscultation	Must know
4	Per abdomen system – Inspection, Palpation, Percussion , Auscultation	Must know
5	CVS – How to examine	Desirable to know
6	CNS – Facial Nerve examination , Meningeal irritation	Desirable to know

Recommended reading

- ✓ Davidson's Principles of Internal Medicine
- ✓ Hutchison Clinical Practice
- ✓ API textbook of Medicine

4. Scheme of examination

A. Theory Marks

University Written Exam	: 70 Marks
Viva Voce	: 20 Marks
Internal Assessment (Theory):	10 Marks
Total	: 100 Marks

Type of Questions	Questions to be set	Questions to be answered	Marks per Question	Total Marks
M.C.Q.'s	10	10	1	10
Long Essays OR	2	2	8	16

SLEQ				
Short Essays OR SEQ	6	6	4	24
SAQ or Short Answers	10	10	2	20
Total				70

Topics distribution and Weightage of marks – Theory

SL. No	Topics	Total max marks as per SDMU guidelines	Actual Marks in the Question Paper				
			MCQ	SLEQ	SEQ	SAQ	TOTAL
1	Respiratory System	08	1		4	2	7
2	Infectious disease	08	1		4	2	7
3	GIT	05	1		4		5
4	CVS	08	1	8			9
5	Haematology	08	1		4	2+2	9
6	CNS	05	1	8		2	
7	Endocrinology	05	1		4	2	7
8	Renal	08	1		4	2	7
9	Critical care Medicine	05	1		4	2+2	5
10	Miscellaneous	10	1			2	3

B. Practical/ Clinical Examination:

University Examination	: 90 Marks
Internal Assessment	: 10 Marks
Total	: 100 Marks

1	Case History	30 marks
2	Clinical Examination	30 marks
3	Investigations	10 marks
4	Differential Diagnosis	10 marks
5	Management	10 marks

GENERAL SURGERY

Course Content

1. Aims and Objectives: -

- A) Surgical Anatomy of Head and Neck Region
- B) Various diseases of the Head and Neck Region
- C) General Surgery Topics with relevance to Dentistry

2. Teaching hours: -

- Lecture Hours – 60 Hours
- Practical Hours – 90 Hours
- Total – 150 Hours

3. Teaching schedule for Theory

Sl.	Topic	Learning Content Distribution		Teaching methodology with hours
		Must know	Desirable to know	PPT/VIDEOS
1	History of Surgery			1 Hours
2		Tissue care, Asepsis & Antisepsis Theatre technique Sterilization Suture material Diathermy Laser		1 Hours
3	Wound Healing	Wound Healing, Classification, Phases Assessment, Treatment Complications		2 Hours
4	Burns	Burns , Degree of Burns ,Wallace's Rule , Pathophysiology Treatment , First Aid.		2 Hours
5		Skin Grafting		1 Hour
6	Shock	Shock, Classification, Pathophysiology, Clinical features, Investigation, Treatment.		2 Hours
7	Haemorrhage	Haemorrhage, Classification, Assessment of blood loss, Pathophysiology , Investigations, Treatment		1 Hours

8	Acute Infections	- Cellulitis, Carbuncle, Erysipelas, Gas Gangrene, Tetanus, Ludwig's angina, Cancrum Oris		2 Hours
9	Ulcers	-Definition, Classification, Aetiology, Pathology, Clinical features ,Investigations, Treatment. SCC, BCC, Malignant Melanoma, Marjolin's ulcer Diabetic foot ulcers		3 hours
10	Sinus and Fistula	Sinus and Fistula		1 Hours
11		Bactremia, Septicaemia, Pyaemia, Toxaemia		1 Hours
12		AIDS and the Surgeon		1 Hours
13		Bleeding Disorders		1 Hours
14		Blood Transfusion		1 Hours
15		Blood Fractions		1 Hours
16		Arterial Diseases		2 Hours
17		Venous Diseases		2 Hours
18	Cysts	Definition, Classification, CI/F, Investigations ,Treatment		1Hour
19	Cyst	Mucous cyst, Sebaceous cyst, Desmoids cyst, Ranula, Cystic Hygtoma, Branchial Cyst, Thyroglossal Cyst, Ganglion		2 Hours
20		Lipoma, Neurofibroma,		1 Hours
21		Vascular Malformations in Head and Neck		1Hours
22	Lymph node Diseases,	Hodgkins ,Non Hodgkins ,Tuberculou Lymphadenitis		2 Hours
23	Thyroid Disorders			4 Hours
24	Salivary Gland Disorders			2 Hours

25	Head Injuries	Head Injuries		1 Hours
26		Facio-Maxillary Injuries		1Hours
27	Fracture	Fracture Mandible		1Hours
28		Fractures, Classification, Healing of Fractures ,Complications, Treatment		1 Hours
29	Osteomyelitis	Osteomyelitis of Mandible		1Hours
30		Management of Severely Injured		1Hours
31		Leucoplakia		1Hours
32	Tumours	Jaw Tumours		1 Hours
33		Nerve Injuries		1 Hours
34		Tracheostomy		1 Hours
35		Cleft Lip and Palate		1 Hours
36		Midline Swellings of Neck		1 Hours
37		Lateral Swellings of Neck		1 Hours
38		Facial Nerve Injury		1 Hours
39		Trigeminal Neuralgia		1 Hours
40		Quinsy		1 Hours
41	Carcinoma	Carcinoma Tongue		1 Hours
42	Carcinoma	Carcinoma Lip		1 Hours
43	Carcinoma	Carcinoma Buccal Mucosa		1 Hours
44		Mastoid Antrum, Paranasal Sinuses,Pharynx and Oesophagus		2 Hours
45		Radiotherapy, Chemotherapy,		2 Hours

4. Teaching schedule for Clinical / Practical's

S. No.	Topic	Hours
1	Case History Taking	5 Hours
2	Examination of Swellings	3Hours
3	Examination of Ulcers	2 Hours
4	Case Presentations	80 Hours

5. Recommended Text and Reference books, Journals and Atlases (as per your preference modify the title)

- 1) General Surgery for Dental Students –K Rajagopal Shenoy
- 2) SRB Text book of General Surgery for Dental Students
- 3) Bailey and Love Principles Of Surgery

6. Scheme of examination:

A) Theory Marks

University Written Exam	: 70 Marks
Viva Voce	: 20 Marks
Internal Assessment (Theory)	: 10 Marks
Total	: 100 Marks

Type of Questions	Questions to be set	Questions to be answered	Marks per Question	Total Marks
M.C.Q.'s	10	10	1	10
Long Essays	2	2	8	16
Short Essays	6	6	4	24
Short Notes	10	10	2	20
Total				70

Topics distribution and Weightage of marks – Theory

Sl. No.		MCQ	LEQ	SEQ	SNQ	Total Marks
1	General Surgery	2	8		2x2=4	14
2	Vascular Surgery			4	2	6
3	Cysts				2x2=4	4
4	Swelling	2		4		6
5	Thyroid			4		4
6	<i>Salivary Glands</i>			4	2	6
7	Head, Neck and OFMS Trauma	4		4	2	10
8	Infections				2	2
9	Cleft Lip and Palate			4		4
10	Oral Cancers		8		2	10
11	Jaw Tumours	2			2	4
TOTAL						70

Practical/ Clinical Examination:

University Examination: 90 Marks

Internal Assessment : 10 Marks

Total : 100 Marks

B. Practical:

1. Case Presentation : 90 Marks

ORAL PATHOLOGY & MICROBIOLOGY
AIMS & OBJECTIVES

INTRODUCTION:

A bird's eye view of the different pathological processes involving the oral cavity & oral cavity involvement in systemic diseases to be brought out. Interrelationship between General Medicine & General Surgery & Oral pathology to be emphasized.

1. OBJECTIVES:

At the end of Oral Pathology & Microbiology course, the student should be able to comprehend: -

- I. The different types of pathological processes that involves the oral cavity.
- II. The manifestations of common diseases, their diagnosis & correlation with clinical pathological processes.
- III. An understanding of the oral manifestations of systemic diseases should help in correlating with the systemic physical signs & laboratory findings.
- IV. The student should understand the underlying biological principles governing treatment of oral diseases.
- V. The principles of certain basic aspects of Forensic Odontology.

2. *SKILLS:-*

- a. Microscopic study of common lesions affecting oral tissues through microscopic slides & projection slides.
- b. Study of the disease process by surgical specimens
- c. Study of teeth anomalies/polymorphisms through tooth specimens & plaster casts.
- d. Microscopic study of plaque pathogens.
- e. Basic exercises in Forensic Odontology such as histological methods of age estimation and appearance of teeth in injuries.

3. *Teaching hours:*

Lecture Hours – 120 hours

Practical Hours – 80 hours

Total – 200 hours

4. Teaching schedule for Theory

a) Benign and Malignant Tumours of the Oral Cavity

30 Hours

Sl.	Section name	Must Know	Desirable to know
1.	Benign tumours of epithelial tissue origin	Squamous Papilloma, Keratoacanthoma & Oral Nevi	Squamous Acanthoma
2.	Premalignant lesions and conditions	Definitions, classification, Concepts of Premalignancy: Epithelial dysplasia, Carcinoma in-situ, Potentially malignant disorders: Leukoplakia, Erythroplakia, Palatal changes associated with reverse smoking, Oral submucous fibrosis & Plummer Vinson syndrome	Actinic cheilitis, Tobacco pouch keratosis
3.	Malignant tumours of epithelial tissue origin	Basal Cell Carcinoma, Epidermoid (Squamous cell)- Carcinoma (Including staging and grading), Verrucous carcinoma, Malignant Melanoma.	
4.	Benign tumours of connective tissue origin	Fibroma, Giant cell Fibroma, Lipoma, Haemangiomas. Lymphangiomas, Chondroma, Osteoma, Osteoid Osteoma, Benign Osteoblastoma	Leiomyoma, Rhabdomyoma, Benign fibrous histiocytoma
5.	Malignant Tumours of connective tissue origin	Fibrosarcoma, Chondrosarcoma, Osteosarcoma, Hodgkin's and Non-Hodgkin's Lymphoma, Burkitt's Lymphoma	Hemangioendothelioma, Malignant fibrous histiocytoma,
6.	Tumour like lesions of connective tissue origin	Peripheral & Central giant cell granuloma, Pyogenic granuloma, Peripheral ossifying fibroma	
7.	Tumours of disputed origin	Congenital Epulis of new born, Granular Cell tumour, Kaposi's Sarcoma, Ewing's sarcoma.	PNET

8.	Benign and malignant tumours of Nerve Tissue Origin	Neurofibroma & Neurofibromatosis-1, Schwannoma, Traumatic Neuroma	Malignant schwannoma, Melanotic Neuroectodermal tumour of infancy
9.	Metastatic Tumours of Jaws and soft tissues of oral cavity	Tumours metastasizing to & from oral cavity & the routes of metastasis.	

b) Tumours of the salivary glands and Non-neoplastic salivary gland diseases - 10 Hours

Etiopathogenesis, clinical features, histopathology, radiological features & laboratory diagnosis (as appropriate) of the following

Sl.	Section name	Must Know	Desirable to know
1.	Classification	Classification of salivary gland Tumours	Histogenesis and Morphogenesis of salivary tumours
2.	Benign Tumours	Pleomorphic adenoma, Warthin's tumour, Basal cell adenoma, Canalicular adenoma	Myoepithelioma
3.	Malignant Tumours	Carcinoma Ex pleomorphic adenoma Malignant pleomorphic adenoma, Adenoid Cystic carcinoma Acinic Cell carcinoma, Mucoepidermoid carcinoma, Central Mucoepidermoid carcinoma & Clear cell carcinoma	Polymorphous low-grade adenocarcinoma
4.	Non- Neoplastic Diseases of Salivary glands	Sjogren's syndrome, Mikulicz's disease Sialolithiasis, Sialadenitis, Sialadenosis, Xerostomia & Sialorrhea	Necrotizing sialometaplasia

c) Cysts of the Oral & Para-oral region- 08 Hours

Etiopathogenesis, histogenesis, clinical features, histopathology, radiological features & laboratory diagnosis (as appropriate) of the following common cysts

Sl.	Section name	Must Know	Desirable to know
1.	Introduction and Classification of Cysts of Oral Region	Introduction, Definition and Classification	
2.	Odontogenic Cysts	Odontogenic Keratocyst, Dentigerous Cyst, Eruption cyst, Glandular odontogenic cyst, Calcifying Odontogenic Cyst, Radicular Cyst & Residual Cyst	Gingival Cyst of new born, Gingival Cyst of adults, Lateral Periodontal Cyst, Buccal bifurcation Cyst
3	Developmental cysts	Dermoid cyst	Epidermoid cyst
4.	Pseudocysts	Aneurysmal bone cyst, Traumatic bone cyst, Mucous extravasation phenomenon	

d) Tumours of Odontogenic Origin- 10 hours

Etiopathogenesis, clinical features, histopathology, radiological features & laboratory diagnosis (as appropriate) of the following common tumours

Sl.	Section name	Must Know	Desirable to know
1.	Introduction and classification	Introduction and classification	
2.	Benign tumours – a. Odontogenic epithelium without Odontogenic ectomesenchyme	Ameloblastoma, Calcifying Epithelial Odontogenic Tumour, Adenomatoid Odontogenic Tumour, Squamous Odontogenic Tumour	
	b. Odontogenic epithelium with Odontogenic ectomesenchyme with or without hard tissue formation	Ameloblastic Fibroma, Odontoma	Ameloblastic Fibro-odontoma, Dentinogenic Ghost cell Tumour
	c. Odontogenic ectomesenchyme with or without included Odontogenic Epithelium	Peripheral and Central Odontogenic Fibroma, Odontogenic Myxoma,	Cementoblastoma
3.	Odontogenic carcinomas	Metastasizing ameloblastoma, Malignant Ameloblastoma	Ameloblastic carcinoma

e) Regressive alterations of teeth- 02 hours

Sl.	Section name	Must Know	Desirable to know
1.	Regressive alterations of teeth	a. Attrition, abrasion, erosion b. Dentinal sclerosis, dead tracts, secondary dentin, pulp calcifications c. Resorption of teeth (internal & external) d. Hypercementosis and Cementicles	

Infections of the Oral cavity: - 10 hours

Microbiology, defines mechanisms including immunological aspects, oral manifestations, histopathology and laboratory diagnosis of common infections

Sl.	Section name	Must Know	Desirable to know
1.	Bacterial Infections	Scarlet fever, Diphtheria, Tuberculosis, Syphilis, Actinomycosis, Tetanus, Noma	
2.	Viral Infections	Herpes Simplex, Measles, Mumps, Chicken Pox, Herpes Zoster, H.I.V and Oral Manifestations of AIDS	Infectious mononucleosis, Cytomegalic Inclusion disease
3.	Fungal Infections	Candidiasis, Histoplasmosis, Mucormycosis	Rhinosporidiosis, Aspergillosis

f) Allergic and Immunological Diseases of the Oral cavity- 02 hours

Sl.	Section name	Must Know	Desirable to know
1.	Immunological Diseases:	Recurrent Aphthous Stomatitis, Bechet's Syndrome, Reiter's Syndrome	Sarcoidosis
2.	Allergic Diseases:		Angioedema, Stomatitis Medicamentosa,

g) Physical and Chemical Injuries of the Oral Cavity- 05 hours

Sl.	Section name	Must Know	Desirable to know
1.	Physical Injuries of Teeth	Bruxism, Ankylosis, Abfraction	Cracked tooth syndrome
3.	Physical Injuries of Soft tissues	Traumatic Ulcer, Denture Injuries of the Mucosa, Mucous Retention Phenomena	
4.	Chemical Injuries of Oral Cavity	Aspirin Burn, Lead, Mercury, Bismuth Poisoning & Silver poisoning, Dilating sodium induced gingival enlargement, Tetracycline stains	
5.	Effects of Radiation on bone and Oral Mucosa	Effects on oral mucosa, Effects on salivary gland , Osteoradionecrosis, Radiation Caries	

5. Biopsy, Cytology and Healing of Oral Wounds- 05 Hours

Sl.	Section name	Must Know	Desirable to know
1.	Factors affecting the healing of wounds	Healing of Extraction Wound and Dry Socket, Healing of Bone Fracture	
2.	Biopsy	Biopsy Techniques, Processing of tissues with a Brief account of routine stains used, Healing of the biopsy wound	
3.	Cytology	Basic Aspects of Cytology: Indications, Staining of Cytosmears, Interpretation of Cytosmears and disadvantages of Cytology	
4.	Re-Implantation and Transplantation of Teeth		Re-Implantation and Transplantation of Teeth

6. Disease of Bone and TMJ- 08 hours

Sl.	Section name	Must Know	Desirable to know
1.	Genetic Diseases of Bone	Osteogenesis Imperfecta, Cleidocranial Dysplasia, Craniofacial Dysostosis, Mandibulofacial Dysostosis, Pierre Robin syndrome, Marfan's Syndrome, Down's Syndrome, Osteopetrosis, Cherubism	Achondroplasia
2.	Fibro-osseous Lesions	Fibrous Dysplasia – Mono and polyostotic dysplasia, ossifying fibroma	Cemento-osseous dysplasia
3.	Unknown Etiology	Paget's Disease, Multiple Myeloma, Solitary Plasmacytoma	Histiocytosis- X- Disease
4.	Disorders of the Temporo-mandibular Joint	Developmental disturbances of the TMJ, Ankylosis of the TMJ Subluxation and luxation Myofascial pain dysfunction syndrome	

7. Blood Dyscrasias- 04 hours

Sl.	Section name	Must Know	Desirable to Know
1.	Blood Dyscrasia	Clinico-pathological aspects & oral manifestations of: Anemias, Polycythemia, Leukopenia, Cyclic Neutropenia, Agranulocytosis, Leukocytosis, Infectious mononucleosis, Leukemias, Purpura, Haemophilia	Chediak- Higashi Syndrome

8. Diseases of Skin- 10 hours

Sl.	Section name	Must Know	Desirable to know
1.	Hereditary	Ectodermal Dysplasia, White Sponge Nevus, Hereditary Benign Intra Epithelial Dyskeratosis, Ehler-Danlos Syndrome	
2.	Immune Related	Oral Lichen Planus, Pemphigus, Benign Mucous Membrane Pemphigoid, Cicatricial Pemphigoid, Psoriasis, Erythema Multiforme, Epidermolysis Bullosa, Scleroderma, Lupus Erythematosus	Lichenoid reactions

9. Oral Aspects of Metabolic Disease - 03 hours

Sl.	Section name	Must Know	Desirable to know
1.	Oral Aspects of Disturbances in Mineral Metabolism	Calcium, Phosphorous, Fluorine and Iron	Magnesium, Zinc,
2.	Oral Aspects of Avitaminoses and Hypervitaminoses:	Vitamin A, Vitamin D, Vitamin C, Vitamin B complex	
3.	Oral Aspects of Disturbances in Hormone Metabolism:	Hypopituitarism, Hyperpituitarism, Hyperthyroidism, Hypothyroidism, Hypoparathyroidism, Hyperparathyroidism, Addison's disease, Cushing's Syndrome, Diabetes Mellitus	

10. Diseases of Nerves - 02 hours

Sl.	Section name	Must Know	Desirable to know
1.	Neuralgias	Trigeminal neuralgia, Sphenopalatine neuralgia, Glossopharyngeal neuralgia, Facial Paralysis	
2.	Other disorders	Frey's Syndrome	Psychogenic facial pain, Burning Mouth Syndrome

11. Oral Microbiology - 03 hours

Sl No	Section name	Must Know	Desirable to know
1.	Normal Oral Microflora	Normal Oral Microflora	
2.	Microbiology of Oral Infections		Bacteria: Mycobacterium tuberculosis, Treponema pallidum Viruses: Herpes group of viruses, Human Immunodeficiency Virus Fungi: Candida albicans
3.	Microbiology of Periodontal Diseases		Borrelia Vincentii, Fusobacteria, Actinomycetes actinomycetum comitans
4.	Microbiology of Dental Caries		Streptococcus mutans, Lactobacillus acidophilus, Actinomyces Israeli, Veillonella

12. Defence mechanisms of oral cavity- 01 Hour

Sl.	Section name	Must Know	Desirable to know
1	Defense mechanisms of oral cavity		Various Defense mechanisms of oral cavity

13. Forensic odontology

- 05 Hours

Sl.	Section name	Must Know	Desirable to know
1	Introduction to Forensic Odontology	Introduction, definition, aims & scope. Sex and ethnic (racial) differences in tooth morphology and histological age estimation Determination of sex & blood groups from buccal mucosa/ saliva Dental DNA methods Bite marks, rugae patterns and lip prints Overview of forensic medicine and toxicology	

PRACTICALS

80 Hours

- a. Identification of Hard and Soft Tissue Specimens
- b. Demonstration of Cytosmear and bacteriology smear
- c. Identification of Microscopic slides of Various Oral Lesions

I. Identification of the histopathology slides of the following lesions:

Pulp and Periapical diseases

1. Pulp polyp
2. Periapical granuloma

Osteomyelitis

3. Osteomyelitis (chronic)

Cysts of Orofacial region

4. Dentigerous cyst
5. Radicular cyst
6. Cholesterol clefts / cholesterol crystals
7. Rushton bodies
8. Russel Bodies
9. Calcifying odontogenic cyst
10. Mucocele
11. Dermoid cyst

Premalignant Disorders

12. Leukoplakia without dysplasia
13. Leukoplakia with dysplasia
14. Oral submucous fibrosis

Benign Non-Odontogenic Tumours

15. Keratoacanthoma
16. Papilloma
17. Nevus

Benign Non-Odontogenic Connective tissue tumours

18. Fibroma
19. Lipoma
20. Capillary haemangioma
21. Cavernous haemangioma
22. Lymphangioma
23. Schwannoma
24. Neurofibroma

Malignant Non-Odontogenic Epithelial Tumours

25. Well differentiated squamous cell carcinoma
26. Verrucous carcinoma
27. Basal cell carcinoma
28. Malignant melanoma

Malignant Non-Odontogenic Connective Tissue tumours

29. Osteosarcoma
30. Fibrosarcoma

Lymphomas

31. Burkitt's Lymphoma

Tumours of Disputed origin

32. Ewings sarcoma

Tumor Like lesions

33. Pyogenic granuloma
34. Peripheral Ossifying fibroma
35. Peripheral Giant cell Granuloma
36. Central Giant cell granuloma

Bone Lesions

- 35. Fibrous dysplasia
- 36. Paget's disease

Odontogenic Tumors

- 37. Follicular Ameloblastoma with cystic degeneration
- 38. Follicular Ameloblastoma with squamous metaplasia
- 39. Plexiform Ameloblastoma
- 40. Granular cell Ameloblastoma
- 41. Adenomatoid odontogenic tumour
- 42. Calcifying epithelial odontogenic tumour
- 43. Ameloblastic fibroma
- 44. Compound odontoma

Salivary Gland Tumours

- 46. Pleomorphic adenoma, preferably with metaplastic areas
- 47. Warthin's tumour
- 48. Mucoepidermoid carcinoma
- 49. Adenoid Cystic carcinoma

Skin Lesions

- 50. Pemphigus
- 51. Lichen Planus

Infections

- 52. Tuberculosis
- 53. Actinomycosis

Forensic Odontology – 5 Hours

1. Sex differences in odontometrics
2. Ethnic variations in tooth morphology
3. Histological age estimation

PROTOCOL FOR ORAL PATHOLOGY DIAGRAMS AND STUDY MODELS

I. TRAINING PROTOCOL

1. Students are provided with a list of books and stationery required for the preclinical lab.
2. Microscopic slides are shown to the students only after the theory class completion.
3. Group discussion held prior to showing the slides for approximately 15-30 minutes.
4. Slide details are explained with the help of audio-visual aid available in the department. The same is used for describing the details of the schematic representation of the shown slides.
5. Following the discussion, the students are made to draw the diagrams in the observation note book.
6. Drawing by student is further guided by preformed charts (flip charts) consisting of the photomicrographs of the fixed focused slides and the same is provided in the form of compact disc in the beginning of the year.
7. 3-5 relevant histology points are provided to the students.
8. The drawn diagrams are assessed in the same session based on:
 - Proper representation of the diagram,
 - Appropriate labelling and Neatness.
9. Approval in the observation book is mandatory to reproduce the diagrams in the record book.
10. The record has to be submitted in the subsequent class for the evaluation.
11. The record book is evaluated for timely submission, knowledge of the topic, proper representation of diagram, appropriate labelling and neatness.

II. EXAMINATION PROTOCOL- INTERNAL ASSESSMENT

1. Practical work has to be completed before the scheduled internal assessment exams.
2. Approximately one week prior to the practical examination, revision practical will be conducted.
3. The last day for approval of the record will be on the revision practical day.
4. The most numerous of the grades acquired by a student will be the final grade awarded for the student for that internal assessment.
5. The practical exam consists of identification of 15 spotters of slides, casts & specimens in 75 minutes with an interval of 5 minutes each.

6. Evaluation of the diagrams of the slides are based on,
 - Correct identification,
 - Appropriate labelling, and
 - Neatness.
7. Evaluation of the tooth specimen & casts are based on,
 - Correct identification, and
 - Enumerating minimum of four relevant points for each spotter.
8. The total marks allotted for the spotters are 90 for Oral Pathology
9. 10 marks are allotted for the records

RECOMMENDED BOOKS

Name of the Book & Title	Author	Edition	Publisher
Shafer's Text Book of Oral Pathology	R. Rajendran & B. Shivapathasundaram	9 th	Elsevier
Oral Pathology Clinical Pathologic Correlation	Regezi & Scuibia	7th	W. B. Saunders Company USA
Textbook of Oral and Maxillofacial Pathology	Neville, Damm. Allen, Bouquet	4th	Elsevier
Oral Diseases in The Tropics	Prabhu, Wilson, Johnson & Daftary	1st	Oxford University Press

Other suggested reading

1. Pathology of Tumors-Lucas
2. Oral Immunology - Lehner
3. Oral Pathology - Soames and Southam
4. Contemporary Oral and Maxillofacial Pathology - SAPP Eversole, Wysocki,
5. Colour Atlas of Oral Pathology - John Everson & Crispian Scully

SCHEME OF EXAMINATION:

A) Theory Marks

University Written Exam : 70 Marks

Viva Voce : 20 Marks

Internal Assessment (Theory): 10 Marks

Total : 100 Marks

Type of Questions	Questions to be set	Questions to be answered	Marks per Question	Total Marks
M.C.Q.'s	10	10	1	10
Long Essays OR SLEQ	2	2	8	16
Short Essays OR SEQ	6	6	4	24
SAQ or Short Answers	10	10	2	20
Total				70

Topics distribution and Weightage of marks – Theory

MCQ	Long Essay question	Short Essay	Short Notes
All chapters	Developmental disturbances of teeth, jaws and soft tissues of oral & paraoral region	All chapters	All chapters
	Dental Caries		
	Pulp & Periapical Pathology & Osteomyelitis		
	Periodontal Diseases		
	Benign and Malignant Tumours of the Oral Cavity (including premalignant lesions & conditions)		
	<i>Tumours of the salivary glands and Non-neoplastic salivary gland diseases</i>		
	Cysts of the Oral & Para-oral region		
	Tumours of Odontogenic Origin		
	Infections of the Oral cavity		
	Disease of Bone and TMJ		
	Diseases of Skin		

B. Practical/ Clinical Examination:

University Examination	: 90 Marks
Internal Assessment	: 10 Marks
Total	: 100 Marks

Spotters (15)	No. of spotters	marks	Total Marks
Slides	11	6	66
Casts	2	6	12
Specimen	2	6	12
Total			90

ORAL MEDICINE & RADIOLOGY

1. Aims and Objectives:

Aims:

- The undergraduate training programme commences in the third year with Lecture and clinical exercises and continues for 12 months before entering final year .
- During their one month clinical posting in each academic year, students have the opportunity of taking the case history, examining the patient, and arriving at diagnosis of common oral diseases with the aid of radiographs and other investigations, thereby planning suitable treatment for the patient.

Objectives:

(a) Knowledge and understanding:

The student should acquire the following during the period of training.

1. Adequate knowledge of the scientific foundations on which dentistry is based and good understanding of various relevant scientific methods, principles of biological functions and should be able to evaluate and analyze scientifically various established facts and data.
2. The relationship and effect on general-state of oral health and also the bearing on physical and social well-being of the patient is necessary.
3. Adequate knowledge of clinical disciplines and methods, which provide a coherent picture of anomalies, lesions and diseases of the teeth, mouth and jaws and preventive, diagnostic and therapeutic aspects of dentistry.
4. Adequate clinical experience required for general dental practice.
5. Adequate knowledge of biological function and behavior of persons in health and sickness as well as the influence of the natural and social environment on the state of oral health so far as it affects dentistry.

(b) Skills:

A graduate should be able to demonstrate the following skills necessary for practice of dentistry:

1. Able to identify common oral lesions of the oral cavity and refer to the concerned specialty for their management
2. Should have an adequate knowledge about common laboratory investigations and interpretation of their results.
3. Should have adequate knowledge about medical complications that can arise while treating systemically compromised patients and take prior precautions/ consent from the concerned medical specialist.
4. Have adequate knowledge about radiation health hazards, radiations safety and protection. Competent to take intra-oral radiographs and interpret the radiographic findings
5. Be aware of the importance of intra- oral radiographs
6. Should be familiar with jurisprudence, ethics and understand the significance of dental records with respect to law
7. To train the students about the importance, role, use and techniques of radiographs/digital radiograph and other imaging methods in diagnosis.

(c) Attitudes:

A graduate should develop during the training period the following attitudes.

1. Willing to apply current knowledge of dentistry in the best interest of the patients and the community.
2. Maintain a high standard of professional ethics and conduct and apply these in all aspects of professional life.
3. Seek to improve awareness and provide possible solutions for oral health problems and needs throughout the community.
4. Willingness to participate in the continuing education programs to update knowledge and professional skills from time to time.
5. To help and to participate in the implementation of national health programs

4) Teaching hours:

Lecture Hours – 35 Hours

Practical Hours – 70 Hours

Total – 105 Hours

5) Teaching schedule for Theory

Sl. No.	Topic	Learning Content Distribution		Teaching methodology with hours
		Must know	Desirable to know	
1	Introduction to Oral Medicine & Radiology– Definition Scope and clinical Applications	Definition, Scope, Objectives and Importance		2 hours
2	Regressive alterations of teeth, Developmental malformations, discoloration of teeth	- Importance of alteration and development of teeth. - Causes for developmental and discoloration of teeth - Clinical application	- Classification of the Developmental malformations and discoloration of teeth - Treatment	2 hours

3	Oral sepsis and its effect on general system. Inflammation – injury, infection and spread of infection, facial space infections, osteoradionecrosis	<ul style="list-style-type: none"> - Oral focus of infection - clinical features of osteoradionecrosis - focal infection - factors affecting spread of infection - facial spaces - Ludwig's angina 	- complications of osteoradionecrosis	3 hours
4	Periapical Diseases, and Diseases of Dental pulp, diagnosis of dental caries, Periodontal diseases such as gingival Hyperplasia, Gingivitis, Periodontitis, Pyogenic Granuloma	<p>Etiology of pulpal & periapical diseases</p> <p>Differential diagnosis of pulpal & periapical diseases</p>	Various investigations for pulpal & periapical diseases	2 hours
5	Differential diagnosis of orofacial pain:	<p>Pain arising from diseases of orofacial tissues like teeth pulp, gingival and periodontal tissues, mucosa, tongue, muscles, blood vessels, lymph nodes, bone, paranasal sinuses, salivary glands, etc.</p> <p>Pain arising due to CNS diseases</p> <p>Referred pain, arising from distant tissues</p> <p>Neuralgia pain</p>	<p>-Differential diagnosis of Orofacial pain</p> <p>-Investigations</p> <p>Treatment for orofacial pain</p> <p>Other treatment Modalities for orofacial pain (other than medication)</p>	1 hour

6	Orofacial pigmentation	Exogenous & Endogenous Pigmentations Differential Diagnosis	Syndrome associated	3 hours
7	Salivary Gland disorders	-Classification -Clinical features -Investigation		3 hours
7	Pharmcotherapeutics: Common used in Oral Medicine	Antibiotic, Anti inflammatory & analgesics Corticosteroids		1 hours
8	Basic physics in radiology	Definition Electromagnetic Spectrum Theories of radiation		4 hours
9	Factors responsible for ideal radiographs	Definition Density & Contrast		3 hour
10	Production of X-rays Dark room procedures Composition of developer fixer Safe lighting processing technique – manual/automatic, storage of films	Properties of X-rays Sources of radiation Electromagnetic spectrum & types of radiation Electro physical factors Colimation Filtration Films Principals of Shadow Casting Projection Geometry Object localization techniques		1 hour
11	Principles of Intra Oral Radiography, techniques indications of – IOPA, Bitewing, Occlusal radiography – lecture	Indications of IOPA Technique Difference between bisecting & paralleling		2 hours

12	Radiographic Accessories	<ul style="list-style-type: none"> - Collimator - Filter - Intensifying screen - Grids - Film holders - PID 		2 hours
13	Radiographic interpretation – 1	Principles procedures Normal radiographic landmarks of jaws & adjacent structures Radiographic interpretations & differential diagnosis in dental caries periodontal diseases periapical disease		2 hours
16	Image receptor	History Composition Difference between digital & conventional		2 hours
17	Object localization technique	SLOB Rule	-Technique - Indication	1 hour
18	Projection Geometry	Principles	Applications	1 hour

6) Teaching schedule for Clinicals / Practicals

S. No.	Topic	Nos / Hours
1	Case History	15
2	Intra Oral Radiographs	15
3	Clinical Discussion	07
4	Intra Oral Radiographs interpretations	10
5	Manual Radiographic film processing	05

7) Recommended Text and Reference books, Journals and Atlases (as per your preference modify the title)

a) Oral Diagnosis, Oral Medicine & Oral Pathology

1. Burket's oral medicine 12th edition-micheal glick
2. Principales of oral diagnosis-gary c coleman
3. Oral manifestations of systemic diseases-jh jones
4. Oral diagnosis/oral medicine-david f Mitchell
5. Oral diagnosis-Donald a kerr, major mash jr. H dean miller
6. Oral diagnosis, oral medicine and treatment planning –steven l bricker, Robert P langlais, Craig S miller
7. Hutchinsons's clinical methods- Mitchell glynn, William M drake
8. Shafer's textbook of oral pathology-shafer, hine, levy
9. Oral and maxillofacial pathology-Neville, dam, allen, chi
10. Prinicipal and practice of oral medicine-sonis, fazio, fang
11. Manual on clinical surgery-S das

b) Oral Radiology

- a) Oral radiology principles and interpretation-stuart c white, Michael j pharaoh
- b) Principals of dental imaging –olaf Langland, Robert langlais, john preece
- c) Oral radiology principle and interkpretation-goaz, white
- d) Oral radiology-white and goaz
- e) Dental radiology-Arthur wuehrmann
- f) Oral roentgenographic diagnosis-Edward C stafne
- g) Dental radiography an draiology –eric whaites

8) Scheme of examination:

Theory: No exam will be conducted at the end of 3rd year.

Practicals: End posting viva assessment will be conducted in the department after completion of clinical posting

CONSERVATIVE DENTISTRY & ENDODONTICS

Course Content

1. **Aims and Objectives:**

Conservative dentistry deals with prevention and treatment of the diseases and injuries of the hard tissues and pulp of the tooth and associated periapical lesions, along with restoration of those teeth to normal form, function and aesthetics .

2. **OBJECTIVES:**

The following objectives are laid out to achieve the goals of the course. These are to be achieved by the time the candidate completes the course. These objectives may be considered under the following subtitles.

3. **Knowledge:**

Describe etiology, pathophysiology, diagnosis and management of common restorative and endodontic situations that will include contemporary management of dental caries, management of trauma and pulpal pathosis including periapical and periodontal situations.

Demonstrate understanding of basic sciences as relevant to conservative / restorative dentistry and Endodontics.

Update himself/herself by self-study and by attending basic and advanced Courses, Conferences, Seminars, and Workshops.

4. **Skills:**

5.

Take proper chair side history, examine the patients and perform medical and dental diagnostic procedures. Perform relevant tests and interpret them to come to a reasonable diagnosis about the dental condition in general and Conservative Dentistry – Endodontics in particular. Undertake complete patient monitoring including preoperative as well as post-operative care of the patient.

Perform all levels of restorative work, as part of multidisciplinary approach to address the clinical condition.

6. **Teaching hours:**

Lecture Hours – 32

Practical Hours – 60

Total – 92

7. Teaching schedule for Theory (III Year)

Theory: Minimum Teaching Hours:

32 Hours

SI	Topic	Learning Content Distribution		
		Must know	Desirable to know	Teaching methodology with hours
1	Diagnosis and Treatment Planning	Detailed clinical examination Radiographic examination Tooth vitality tests Diagnosis and treatment planning Preparation of the case sheet.	Recent Advances in Diagnosis	2
2	Gnathological concepts of Restoration	Physiology of occlusion Ideal occlusion TMJ Mandibular movements.	Occlusal Rehabilitation and Restoration	2
3	Anterior Restorations	Selection of cases Selection of restorative materials Manipulation of materials Sandwich restorations	Bevels Dentine bonding agents. Polymerisation shrinkage	2
4	Preventive measures in Restorative Practice	Plaque Control Pit and fissure sealants Dietary measures Fluorides.	Caries vaccine	1
5	Contact and contours	Matrices Tooth separation and Wedges.	Effect of contact and contours on periodontal health and occlusion	2
6	Non Carious Lesions	Classification Diagnosis Clinical Management.		2

7	Hypersensitive Dentine and Its Management	Etiology Diagnosis and Management		3
8	Control Of Pain during Operative Procedures	Direct methods Indirect methods		1
9	Introduction of Endodontics	Definition Scope and Future of Endodontics.		1
10	Pulpal diseases	Classification Diagnosis Treatment Planning of Pulpal diseases		2
11	Periapical diseases	Classification Diagnosis Treatment Planning of Periapical diseases		2
12	Vital pulp therapy:	Indirect Pulp Capping Direct Pulp Capping Pulpotomy Medicaments used	Recent advances in the materials	3
13	Apexogenesis and Apexification	Indications and Contraindications Materials used Procedure of Apexogenesis and Apexification	Newer Materials and Recent advances in therapy	1
14	Rationale of Endodontic Treatment	1. Case selection 2. Indications and Contraindications 3. Zones of Fish 4. Kronfeld's Mountain Pass Theory		1

15	Principles of Root Canal Treatment	Sterilization of root canal Instruments and Materials Isolation		3
16	Discoloured teeth and its management	Etiology Bleaching agents Bleaching Techniques	Laminates and Veneers	2
17	Aesthetic Dentistry	Introduction and scope of Aesthetic Dentistry	Anatomy & Physiology of smile. Role of colour in aesthetic dentistry	2

8. Teaching schedule for Clinicals / Practicals

Sl.	Topic	Hours
1	Demonstration of chair position	1 hour
2	Demonstration of Class I cavity preparation for amalgam	1 hours
3	Demonstration of Varnish and Base application	1/2 hours
4	Demonstration of GIC Restoration	1 hours
5	Demonstration of Composite restoration	2 hours

9. Recommended Text books and Reference books, Journals and Atlases (As per your preference modify the title)

1. Art and Science of Operative Dentistry. Sturdevant.C M
2. Textbook of Operative Dentistry. Sikri.Vimal.K.
3. Operative Dentistry. M.A. Marzouk
4. Textbook of Operative Dentistry. Charbeneau
5. Phillips Science of Dental Materials. Anusavice
6. Endodontic Practice. Grossman.Li.
7. Pathways of Pulp. Cohen

10. Scheme of examination:

Theory: No examination
Practicals: No examination

ORAL AND MAXILLOFACIAL SURGERY

I. AIMS:

To produce a dental surgeon competent enough to perform tooth extraction under both local, anticipate, prevent and manage associated complications, recognize underlying medical conditions and modify treatment plan, acquire adequate knowledge and understanding of various congenital, developmental and acquired pathologies, dysfunctions, defects and injuries occurring in the oral and Maxillofacial region, providing treatment options for common conditions and at the same time able to diagnose maxillofacial pathologies, fractures and refer them to higher specialty.

OBJECTIVES:

a) Knowledge & Understanding: By the end of the course of the clinical training the graduate is expected to –

1. Application of the knowledge acquired in the related medical subjects like pathology, microbiology and general medicine in the management of patients with oral surgical problem.
2. Good understanding of the evaluation, diagnosis and perioperative management of oral surgical patient.
3. Knowledge of different range of oral surgical treatments.
4. Patient counselling regarding morbidity and dysfunction associated with craniofacial pathologies and anomalies and referring such patients to specialists.
5. Understand the principles of in patient management.
6. Understanding of the diagnosis of major oral surgical procedures and principles involved in patient management.
7. Adequate knowledge of pain and anxiety management.
8. Should know ethical and medicolegal issues and communication ability.
9. Gain knowledge about oral infections in dentistry
10. Importance of infection control in dentistry

b) Skills:

1. Acquire skill to examine any patient with oral surgical problem in a systematic manner and requisition of various clinical and laboratory investigations to arrive at a specific diagnosis.

2. Should be efficient in exodontia (Extraction of teeth) both under local and general anaesthesia.
3. Perform minor surgical procedures under local anesthesia like frenectomy, Alveoplasty, Biopsy and suturing techniques.
4. Ability to anticipate prevent and manage complications during and after surgery.
5. Understanding of management of major oral surgical problems and principles involved in inpatient management.
6. Diagnosis and Management of medical emergencies occurring on dental chair.
7. Identify the medically compromised patients and modify the treatment plan whenever required

c) Communication Skills:

1. Develop adequate communication skills particularly with the patients in local language and obtain a true informed consent from them for the most appropriate treatment available at that point of time.

d) Computer Science:

1. Use of computers in surgery, components of computer and its use in practice and presentations; the internet and its use.

II TEACHING HOURS

Lecture Hours	20
Practical Hours	70
Total	90

Teaching Methods:

1. Traditional class room teaching

- a. Use of black board
- b. Computer aid – PPTs

2. Multimedia online teaching

- a. Google classroom / Meet
- b. Skype
- c. Zoom

3. Small group discussions

- a. Students posted in the department (Clinical batch) are divided into two or three groups (5-6 students in each group) and are allotted clinical based topic (subdivided into 5-6 micro topics), which each student has to present for 4-5mins in presence of staff on rotation

** This activity will be conducted in the department seminar hall once every week*

4. Demonstration of clinical procedures

- a. Case history taking
- b. Examination of the patient
- c. Recording blood pressure
- d. Use of different instruments in Oral & Maxillofacial surgery
- e. Various local anaesthetic injection techniques on patients
- f. Extraction of mobile and firm teeth
- g. Training in basic life support skills.
- h. Discussion and management of medically compromised patients.
- i. Understanding and management of medical emergencies.

I. TEACHING SCHEDULE FOR THEORY:

Sl.	Topic	Learning Content Distribution	Teaching Methodology with Hours	
		Must Know	Desirable to Know	
1	Introduction <ul style="list-style-type: none"> • Definition, Aims & objectives of Oral surgery 	Must Know		1 Hour <ul style="list-style-type: none"> • Traditional class room teaching • Multimedia online teaching
2	Diagnosis in oral surgery <ul style="list-style-type: none"> • History Taking • Clinical Examination • Investigations 	Must Know		2 Hours <ul style="list-style-type: none"> • Traditional class room teaching • Multimedia online teaching
3	Infection control <ul style="list-style-type: none"> • Principles of infection control • Cross infection , HIV/AIDS and hepatitis 	Must Know		1 Hour <ul style="list-style-type: none"> • Traditional class room teaching • Multimedia online teaching
4	Local Anaesthesia <ul style="list-style-type: none"> • Neurology of facial pain • Historical aspects, definition, types of LA, indications, contraindications, advantage and disadvantage. • Local anaesthetic drugs, Classification Ideal requirements of LA solutions, composition and mode of action • Choice of particular mode of anaesthesia • Complications of LA, 	Must Know		9 Hours <ul style="list-style-type: none"> • Traditional class room teaching • Multimedia online teaching

	prevention <ul style="list-style-type: none"> • and management. • Anaesthesia technique- Mandible Anaesthesia technique- Maxilla 			
5	Exodontia <ul style="list-style-type: none"> • Introduction, indications, contra indication • Methods of extraction • Use of instruments and complications • Prevention and management 	Must Know		4 Hours <ul style="list-style-type: none"> • Traditional class room teaching • Multimedia online teaching
6	Medical Emergency and Medical Compromised Patients <ul style="list-style-type: none"> • Knowledge of Emergency equipment • Management of CVS, RS, CNS, Endocrinal medical emergencies. • Management of CVS, RS, CNS, Endocrinal medically compromised patients 	Must Know		3 Hours <ul style="list-style-type: none"> • Traditional class room teaching • Multimedia online teaching

III TEACHING SCHEDULE FOR CLINICALS/PRACTICAL

Sl.	TOPIC	HOURS
1	Models- Wiring	2 hours
2	Models- Suturing	2 hours
3	Case history-examination, assessing patient's general condition, recording vitals and diagnosis	40 Hours
4	Use of oral surgical instruments (periosteal elevator, extraction forceps, lucas curette, bone file, suturing instruments)	26 Hours
5	Administration of Local anaesthesia	
6	Extraction of mobile and firm teeth	
7	Patient follow up	

IV RECOMMENDED TEXT AND REFERENCE BOOKS, JOURNALS AND ATLASES

1. Kruger : Textbook of Oral and Maxillofacial Surgery 6th Edition
2. LJ Peterson: Principles of Oral & Maxillofacial surgery 3rd edition
3. DM Laskin: Oral & Maxillofacial Surgery (Vol. 1 & 2)
4. Geoffrey Howe: Extraction of Teeth : 2nd edition
5. Stanley F Malamed: Medical emergencies in dental office: 7th edition
6. Stanley F Malamed: Handbook of Local Anesthesia: 6th edition
7. Monheims: Local anesthesia and pain control in dental practice
8. Richard G.Topazian: Oral and maxillofacial infections 4th edition
9. HC Killey & Kay's: Outline of Oral Surgery (Part 1& 2)
10. Killey's fractures of the middle third of the facial skeleton
11. H.C Killey: Fractures of the Mandible
12. Neelima Anil Malik: Textbook of Oral & Maxillofacial Surgery
13. S M Balaji: Textbook of oral and Maxillofacial surgery: 3rd edition
14. Little and Falace's Dental Management of the Medically Compromised Patient
15. Contemporary Dental ethics and professionalism Quintessence publishing

1. Students are required to learn the following

- a. Case history taking
- b. Examination of the patient
- c. Recording blood pressure
- d. Various anesthetic injections techniques
- e. Use of different instruments in Oral surgery
- f. Suturing techniques on models – orange peel/gloves

2. Supervision of students (Chairside/clinical activity)

- a. Case history taking
- b. Examination of the patient
- c. Recording blood pressure
- d. Various anesthetic injections techniques
- e. Use of different instruments in Oral surgery
- f. Suturing techniques on models – orange peel/gloves

PROSTHODONTICS

1. Aims and Objectives:

To train undergraduate students so as to ensure competence in general areas of Prosthodontics with adequate knowledge, necessary skills and such attitude which are required for carrying out all the activities essential to replace some or all missing natural teeth. To train the students to understand the basic anatomy of edentulous oral structures and step by step procedures and various techniques involved in the fabrication of removable complete denture prosthesis.

Upon completion of this course the graduating student should be able to:

- Demonstrate sound knowledge of the biological and technical aspects of complete and removable partial dentures and their integration with the clinical procedures which will be taught in the succeeding clinical prosthodontics courses.
- Apply all the laboratory procedures related to the construction of complete dentures
- Identify the different materials, instruments and devices involved in the construction of complete dentures and removable partial dentures as well as their uses.

2. Teaching hours:

Lecture Hours – 31 hours

Practical Hours – 144 hours

Total – 175 hours

3. *Teaching schedule for Theory*

SI	Topic	Learning Content Distribution		Teaching methodology with hours
		Must know	Desirable to know	
1	Introduction, scope and terminologies in RPD			1 hr
2	Classification			1 hr
3	Components of removable partial dentures and their functions			1 hr
4	6 Phases of RPD.			1 hr
5	Examination, Diagnosis and Treatment planning			1 hr
6	Oral surgical preparation of the mouth Conditioning of abused and irritated tissues			1 hr
7	Periodontal preparation of the mouth for removable partial denture.	Periodontal diagnosis and treatment planning Initial disease control therapy Definitive periodontal therapy Recall and maintenance Advantages of periodontal therapy		1 hr

8	Surveying	<ul style="list-style-type: none"> ➤ Description of a dental surveyor ➤ Purposes of a surveyor ➤ Factors that determine path of placement and removal ➤ Step by step procedures in surveying a diagnostic cast ➤ Final path of placement ➤ Recording relation of cast to surveyor ➤ Surveying the master cast ➤ Measuring retention and balancing of retention ➤ Influence of survey line in designing of clasps. ➤ Blocking out the master cast. ➤ Relieving the master cast Paralleled block out, shaped block out, arbitrary block out and relief 		2 hrs
9	Preparation of abutment teeth	<ul style="list-style-type: none"> ➤ Classification of abutment teeth ➤ Sequence of abutment preparation on sound enamel ➤ Abutment preparation using conservative restorations ➤ Abutment preparation using crowns ➤ Splinting of abutment 		1 hr

		teeth ➤ Use of isolated teeth as abutment		
10	Support in distal extension partial denture base	➤ Distal extension removable partial dentures ➤ Factors influencing the support ➤ of distal extension bases ➤ Method for obtaining ➤ functional support for ➤ distal extension base		1 hr
11	Impression materials and procedures for removable partial dentures	➤ Rigid materials thermoplastic materials ➤ Elastic materials ➤ Impressions of the partially edentulous arch individual impression trays		1 hr
12	Major connectors	➤ Maxillary Major connectors ➤ Mandibular Major connectors		2 hrs
13	Minor connectors	➤ Functions ➤ Form and location ➤ Tissue stops ➤ Finishing lines. ➤ reaction of tissues to metallic coverage form of occlusal		1 hr
14	Rests and rest seat	➤ Interproximal occlusal rest seats ➤ Internal occlusal rests ➤ Incisal rests and rest seats ➤ Lingual rests on canines and incisor teeth		2 hrs

		<ul style="list-style-type: none"> ➤ Possible movements of partial denture ➤ Support for rests 		
15	Direct retainers	<ul style="list-style-type: none"> ➤ Internal attachments ➤ Extra coronal direct retainers ➤ Relative uniformity of retention ➤ Criteria for selecting a given clasp design ➤ Basic principles of clasp design ➤ Designs of clasps 		4 hrs
16	Indirect retainers	<ul style="list-style-type: none"> ➤ Denture rotation about an axis ➤ Factors influencing effectiveness of indirect retainers ➤ Auxiliary functions of indirect retainers ➤ Forms of indirect retainers ➤ Auxiliary occlusal rests ➤ Canine extensions from occlusal rests ➤ Canine rests ➤ Continuous bar retainers and lingual plates ➤ Modification areas ➤ Rugae support ➤ Direct indirect retention ➤ Denture base considerations ➤ Tooth supported partial denture base 		2 hours

17	Denture base considerations	<ul style="list-style-type: none"> ➤ Functions of denture bases ➤ Methods of attaching denture bases ➤ Ideal denture base material ➤ Advantages of metal bases ➤ Methods of attaching artificial teeth ➤ Need for relining 		1 hr
18	Laboratory procedures	<ul style="list-style-type: none"> ➤ Duplicating a stone cast ➤ Waxing the partial denture framework ➤ Anatomic replica pattern ➤ Spruing, investing, burnout, casting and finishing of the partial denture framework ➤ Making record base ➤ Occlusal rims ➤ Making a stone occlusal template from a functional occlusal record ➤ Arranging posterior teeth to an opposing cast ➤ Types of anterior teeth ➤ Waxing and investing the partial denture before processing the acrylic resin base ➤ Processing the denture ➤ Remounting and occlusal corrections to an occlusal template ➤ Polishing the denture 		1 hr
19	Initial placement, adjustment and servicing of RPD			1 hr
21	Immediate RPD			1 hr

22	RPD opposing complete denture			1 hr
23	Maxillofacial prosthesis		<ul style="list-style-type: none"> ➤ Intraoral prosthesis design considerations • Maxillary prosthesis • Mandibular prosthesis ➤ Treatment planning ➤ Framework design ➤ Class I resections ➤ Class II resections ➤ Mandibular flange prosthesis 	1 hr
24	Repair and additions to removable partial denture	<ul style="list-style-type: none"> ➤ Broken clasp arms ➤ Fractured occlusal rests ➤ Distortion or breakage of other components ➤ Loss of teeth not involved in the support or retention of the restoration. ➤ Loss of an abutment tooth necessitating its replacement and making a new direct retainer ➤ Other types of repair ➤ Repair by soldering 		1 hr

4. Teaching schedule for Clinicals

Clinical posting in the department of prosthodontics for 1 ½ months

Sl. No.	Topic		
1	Demonstration for complete denture (CD)		
	Clinical Procedures	Lab procedures	
	Primary impression	Pouring of impression & making of cast	
	Border molding and final impression	Spacer designing & custom tray fabrication	
	Jaw relation and teeth selection	Pouring of final impression & making of master cast	
	Try in	Fabrication of record base and occlusal rims	
	Denture insertion	Mounting of the cast on the articulators	
		Arrangement of teeth	
		Waxing and carving	
		Acrylization procedures	
2	Demonstration for Removable Partial Denture (RPD)		
	Clinical Procedures	Lab procedures	
	Making of alginate impression of maxillary and mandibular arches	Pouring of impression & making of cast	
	Try in	Wax pattern and teeth arrangement	
	Insertion	Acrylization	
			Quota
3	Complete denture		01
4	RPD		03

5. Recommended Text and Reference books, Journals and Atlases (as per your preference modify the title)

Mc GIVENEY GLEN P	Mc CRACKEN'S REMOVABLE PARTIAL PROSTHODONTICS	9TH	1995	MOSBY
STEWART	CLINICAL REMOVABLE PARTIAL PROSTHODONTICS	II	1997	ALL INDIA PUBLISHERS AND DISTRIBUTORS
Rudd & Marrow	Laboratory procedures - removable partial Prosthodontics	II	1986	Elsewhere
Ernest L Miller	Removable partial Prosthodontics	II	1989	

ORTHODONTICS AND DENTOFACIAL ORTHOPEDICS

Course Content

1. Aims and Objectives:

The training programme in Orthodontics is to structure and achieve the following four objectives.

2. Knowledge of

- The etiology, pathophysiology, diagnosis and treatment planning of various common Orthodontic problems.
- Various treatment modalities in Orthodontics preventive interceptive and corrective
- Interaction of social, cultural, economic, genetic and environmental factors and their relevance to oro-facial deformities.
- Factors affecting the long-range stability of orthodontic correction and their management
- Personal hygiene and infection control, prevention of cross infection and safe disposal waste, keeping in view the high prevalence of Hepatitis and HIV and other highly contagious diseases.

3. Skills

- To obtain proper clinical history, methodical examination of the patient, perform essential diagnostic procedures and interpret them and arrive at a reasonable diagnosis about the Dentofacial deformities.
- To be competent to fabricate and manage the most appropriate removable appliance for the correction of minor orthodontic problems.

4. Attitudes

- Develop an attitude to adopt ethical principles in all aspects of Orthodontic practice.
- Treatment care is to be delivered irrespective of the social status, cast, creed or colleagues
- Develop attitude to seek opinion from allied medical and dental specialists as and when required.

5. Communication skills

- Develop adequate communication skills particularly with the patients giving them the various options available to manage a particular dentofacial problem and to

obtain a true informed consent from them for the most appropriate treatment available at that point of time.

- Develop the ability to communicate with professional colleagues, in Orthodontics or other specialties through various media like correspondence, internet, e-video, conference, etc. To render the best possible treatment.

6. Teaching hours:

Lecture Hours – 20

Practical Hours – 70

Total – 90

7. Teaching schedule for Theory

Sl	Topic	Learning Content Distribution		Teaching methodology with hours
		Must know	Desirable to know	
1	Introduction to Orthodontics	Introduction, Definition, Historical Background, Aims and Objectives of Orthodontics and Need for Orthodontic care.	Branches of Orthodontics, Contributions of Angle, Tweed, Begg and Andrews to orthodontics	Theory lecture and discussion 1 hour
2	Growth & development – definition terminology	Definition, Growth spurts and Differential growth, Factors influencing growth and development, Methods of measuring growth, Cephalocaudal gradient in growth	Genetic and epigenetic factors in growth, Neurotropism, Methods of Bone growth	Theory lecture and discussion 3 hours
3	Theories of Growth	Genetic theory, Sicher's sutural theory, Scott's cartilaginous theory, Moss' functional matrix theory	Petrovics cybernetic theory, Growth relativity, Multifactorial theory	Theory lecture and discussion 2 hours.

4	Growth of Development of specific regions	Prenatal growth of craniofacial structures Postnatal growth and development of: cranial base, maxilla, mandible, dental arches and occlusion	Morphologic Development of Craniofacial Structures	Theory lecture and discussion 3 hours
5	Clinical Implications of Growth & development	Timing of orthodontic treatment, Names of various craniofacial syndromes	Clinical features and etiology of various craniofacial syndromes	Theory lecture and discussion 2 hours
6	Development of Dentition	Periods of occlusal development. Pre dental period. Deciduous dentition period Mixed Dentition period. Permanent dentition period.	Factors influencing functional development of dental arches & occlusion, Forces of occlusion, Wolfe's law of transformation of bone, Trajectories of forces	Theory lecture and discussion 2 hours
7	Physiology of the stomatognathic system	Functional development mastication. Deglutition respiration and speech	Equilibrium theory passive muscle function. Buccinator mechanism	Theory lecture and discussion 2 hours
8	Normal Occlusion	Terminology Curve of Spee Curve of Wilson Curve of Monson Andrews six keys to normal occlusion.	Centric occlusion Centric relation Recorded condylar position TMD	Theory lecture and discussion 1 hour
9	Classification of malocclusion	Definition of malocclusion Description of different types of Dental, skeletal	Skeletal malocclusion British standards institute's	Theory lecture and discussion 2 hours

		and functional malocclusion Classification of Malocclusion Principle, description, advantages and disadvantages of classification of malocclusion by Angle and modification, Simon, Lischer and Ackerman and Proffit.	Classification of incisor relationship.	
10	Etiology of malocclusion and habits.	Etiology of following different types of malocclusion. Midline diastema Spacing Crowding Cross-Bite: Anterior / Posterior Class III Malocclusion Class II Malocclusion Deep Bite Open Bite Tongue thrusting, Mouth breathing habit	Congenital defects. Bruxism Minor habits Lip biting, nail biting, occupational habits.	Theory lecture and discussion 4 hours

8. Teaching schedule for Clinicals / Practicals

Sl.	Topic	Hours
1	Straightening 4" & 6"	8
2	Circle	5
3	Triangle	5
4	5 U's	5
5	5 V's	6
6	C Clasp – 4 Nos.	7
7	U Clasp – 4 Nos.	7
8	Triangular Clasp – 4 Nos.	7
9	Adam's Clasp – 16 Nos.	20

9. Recommended Text and Reference books, Journals and Atlases (as per your preference modify the title)

1. Contemporary Orthodontics - William R Proffit.
2. Orthodontics for Dental Students - White and Gradiner.
3. Handbook for Dental Students – Moyers.
4. Orthodontics - Principles and Practice – Graber.
5. Design, Construction and Use of Removable Orthodontic Appliances - C. Philip.
6. Adams.
7. Clinical Orthodontics: Vol 1 & 2 - Salzmann Orthodontics - Graber and Swine.
8. Textbook of Orthodontics-III Edition, M S Rani, All India Publishers & Distributors, New Delhi.
9. **Scheme of examination: Examination will be held in 4th year**

PEDIATRIC AND PREVENTIVE DENTISTRY

1. Aims and Objectives:

➤ Aims:

- To create a graduate in Dental Science who has adequate knowledge, necessary skills and such attitudes which are required for carrying out all the activities appropriate to general dental practice involving the prevention, diagnosis and treatment of anomalies and diseases of the teeth, mouth, jaws and associated tissues.
- The graduate should also understand the concept of community oral health education and be able to participate in the Schrol dental health Programmes.

2. Objectives:

A. Knowledge and understanding:

The student should acquire the following during the period of training.

1. Adequate knowledge of the scientific foundations on which dentistry is based and good understanding of various relevant scientific methods, principles of biological functions and should be able to evaluate and analyse scientifically various established facts and data.
2. Adequate knowledge of the development, structure and function of the teeth, mouth and jaws and associated tissues both in health and disease and their relationship and effect on general-state of health and also the bearing on physical and social well-being of the patient.
3. Adequate knowledge of clinical disciplines and methods, which provide a coherent picture of anomalies, lesions and diseases of the teeth, mouth and jaws and preventive, diagnostic and therapeutic aspects of dentistry.
4. Adequate clinical experience required for general dental practice.
5. Adequate knowledge of biological function and behavior of persons in health and sickness as well as the influence of the natural and social environment on the state of health so far as it affects dentistry.

B. Skills:

A graduate should be able to demonstrate the following skills necessary for practice of dentistry:

1. Able to diagnose and manage various common dental problems encountered in a child, keeping in mind the expectations and the right of the society to receive the best possible treatment available wherever possible.
3. Acquire skill to prevent and manage complications if encountered while carrying out various dental surgical and other procedures.
4. Possess skill to carry out required investigative procedures and ability to interpret laboratory findings.
5. Promote oral health and help to prevent oral diseases wherever possible.
6. Competent in control of pain and anxiety during dental treatment.

C. Attitudes:

A graduate should develop during the training period the following attitudes.

- Willing to apply current knowledge of dentistry in the best interest of the patients and the community.
- Maintain a high standard of professional ethics and conduct and apply these in all aspects of professional life.
- Seek to improve awareness and provide possible solutions for oral health problems and needs throughout the community.
- Willingness to participate in the continuing education programs to update knowledge and professional skills from time to time.
- To help and to participate in the implementation of national health programs

D. Teaching hours:

Lecture Hours – 35 Hours

Practical Hours – 70 Hours

Total – 105 Hours

E. Teaching schedule for Theory

Sl.	Topic	Learning Content Distribution		Teaching methodology with hours
		Must know	Desirable to know	
1	Introduction to Pediatric and Preventive Dentistry	Definition, Scope, Objectives and Importance		1 hour
2	Growth and Development (will be covered by department of orthodontics also)	<ul style="list-style-type: none"> - Importance of study of growth and development in Pedodontics. - Methods to measure growth. - Development of maxilla and mandible and age related changes 	<ul style="list-style-type: none"> - Prenatal and postnatal factors in growth and development - Theories of growth and development 	2 hours
3	Development of Occlusion from birth to adolescence	<ul style="list-style-type: none"> - Mouth of neonate, gumpads - Primary dentition period - Mixed dentition period - Establishment of occlusion - Self correcting malocclusions - Study of variations and abnormalities 		3 hours
4	Dental Anatomy and Histology	<ul style="list-style-type: none"> - Chronology of eruption of teeth - Differences between primary and permanent teeth - Eruption disorders and their 		2 hours

		management including teething, ectopic eruption, ankylosis		
5	Young Permanent teeth importance of First Permanent Molar		Young Permanent teeth importance of First Permanent Molar	1 hour
6	Dental Caries	<ul style="list-style-type: none"> - Caries pattern in primary, young permanent and permanent teeth - Early childhood caries, rampant caries-definition, classification, etiology, - pathogenesis, clinical features, complications and management - Diagnostic procedures and caries detection - Role of diet and nutrition in dental caries and sugar substitutes - Diet counseling and Diet Modifications - Caries activity tests, caries prediction, susceptibility and their clinical - Application 		3 hours

7	Dental Home and Anticipatory Guidance		Dental Home and Anticipatory Guidance	1 hours
8	Fluorides	<ul style="list-style-type: none"> • Historical background • Systemic fluorides-availability, agents, concentrations, advantages and disadvantages • Topical fluorides- agents, composition, methods of application both for • Professional and home use, advantages and disadvantages • Mechanism of action and its anti-cariogenic effect • Fluoride toxicity and its management • De fluoridation techniques 		4 hours
9	Dental materials used commonly in children and adolescents	<ul style="list-style-type: none"> • Dental cements, in detail about Glass Ionomer Cements • Composite 	-Dental Amalgam	3 hour
10	Case history recording	<ul style="list-style-type: none"> • Principles of history taking, examination, investigations, diagnosis and treatment planning 		1 hour
11	Pediatric Operative Dentistry	<ul style="list-style-type: none"> • Isolation-importance and techniques • Modifications in cavity preparation 	- History and Principles of operative dentistry	5 hours

		and recent cavity designs for primary and young permanent teeth		
12	Minimal Invasive Dentistry,	<ul style="list-style-type: none"> - Atraumatic/ Alternative Restorative Technique (ART) - Sealants and Preventive Resin Restorations 	<p>History and concepts and various methods</p> <ul style="list-style-type: none"> - Other methods of caries removal 	2 hours
13	Preformed crowns	<ul style="list-style-type: none"> • Stainless steel 	<ul style="list-style-type: none"> • Polycarbonate • Restorative approaches for badly decayed Primary anterior teeth. 	3 hours
14	Gingival and periodontal diseases in children		<ul style="list-style-type: none"> - Normal gingival and periodontium in children - Definition. Classification - Aetiology, pathogenesis and management of gingival and periodontal • Conditions seen in children and adolescents 	2 hours
15	Dental radiology as related to Pedodontics		Dental radiology as related to Pedodontics	1 hour
16	Setting up of Pediatric Dental Practice		Setting up of Pediatric Dental Practice	1 hour

F. Teaching schedule for Clinicals / Practicals

Sl.	Topic	Nos / Hours
1	Case History	03
2	Oral prophylaxis	03
3	Topical Fluoride application (APF Gel)	03
4	Class I Restorations	02
5	Extractions	03

G. Recommended Text and Reference books, Journals and Atlases (as per your preference modify the title)

1. Comprehensive paediatric dentistry - Nikhil Marwah, 4th Edition
2. Textbook of Pedodontics- Shobha Tandon, 3rd Edition
3. Textbook of Pediatric Dentistry -Damle.S.G
4. Principles and practice of Pedodontics - Arthi Rao
5. Pediatric dentistry principles & practice - Muthu, M.S
6. Dentistry for the Child and Adolescent- Mc Donald
7. Pediatric Dentistry (Infancy Through Adolescence)- Pinkham
8. Paediatric Operative Dentistry-Kennedy
9. Behaviour Management- Wright
10. Clinical Use of Fluorides- Stephen H. Wei
11. Textbook of Pediatric Dentistry-Braham Morris
12. Understanding of Dental Caries-Nikiforuk
13. Handbook of Clinical Pedodontics- Kenneth D
14. Journal of Indian Society of Pediatric and Preventive Dentistry
15. Journal of Pediatric Dentistry

H. Scheme of examination:

Theory: No exam will be conducted at the end of 3rd year.

Practicals: End posting viva assessment will be conducted in the department after completion of clinical posting

PERIODONTOLOGY

Course Content

1. **Aims and Objectives:**

2. 1. To educate the students about the biological basics of periodontology, gingival pathology, non-surgical periodontal therapy and epidemiology.
3. To train the students in diagnosis of gingival and periodontal diseases.
4. To train the students clinically in hand scaling techniques.
5. To inculcate good chair side manners and didactic skills.

6. **Teaching hours:**

Lecture Hours – 20 h
 Practical Hours – 20 h
 Total – 40 hrs

7. **Teaching schedule for Theory**

S. No	Topic	Learning Content Distribution		Teaching methodology with hours
		Must know	Desirable to know	
1	Introduction	General information about periodontology	Scope of the subject	Lecture with audio-visual aids: 1h
2	Plaque Control – Mechanical	Brushing techniques and interdental cleaning	Indications, contraindications, Advantages and disadvantages of each	Lecture with audio-visual aids: 1h
3	Chemical Plaque control	Indications, Purpose, Chlorhexidine mouthwash in detail	Classification, Mechanism of action, Advantages and disadvantages of various chemical plaque control agents	Lecture with audio-visual aids: 1h

5	Gingiva	Anatomy, structure and function	Clinical implications	Lecture with audio-visual aids: 1h
6	Periodontal ligament	Anatomy, structure and function	Clinical implications	Lecture with audio-visual aids: 1h
7	Alveolar bone	Anatomy, structure and function	Clinical implications	Lecture with audio-visual aids: 1h
8	Cementum	Anatomy, structure and function	Clinical implications	Lecture with audio-visual aids: 1h
9	Defense mechanism of - GCF	Formation, composition and function	Methods of collection and Clinical implications	Lecture with audio-visual aids: 1h
10.	Defense mechanism of - Saliva	Formation, composition and function	Methods of collection and Clinical implications	Lecture with audio-visual aids: 1h
11.	Stages of gingivitis	Features and progress of gingival inflammation	Clinical signs and histological changes in each stage and association between the two	Lecture with audio-visual aids: 1h
12.	Clinical features of gingivitis	Description and course duration	Clinical findings and methods of evaluation	Lecture with audio-visual aids: 1h
13.	ANUG	Etiopathogenesis, signs and symptoms	Treatment	Lecture with audio-visual aids: 1h
14.	AHGS & Pericoronitis	Etiopathogenesis, signs and symptoms	Treatment	Lecture with audio-visual aids: 1h
15.	Chronic Desquamative gingivitis.	Etiopathogenesis, signs and symptoms	Treatment	Lecture with audio-visual aids: 1h

16.	Gingival enlargement – Part I & II	Etiopathogenesis, signs and symptoms	Treatment	Lecture with audio-visual aids: 2 h
17.	Age changes in periodontium	Effects of aging of the periodontium: health and disease	Effects of aging on the treatment of periodontal diseases	Lecture with audio-visual aids: 1h
18.	Epidemiology	Study designs and their applications in periodontal research	Levels of evidence, evidence based decision making	Lecture with audio-visual aids: 1h

4. Teaching schedule for Clinicals / Practicals

S. No.	Discussion Topics	Hours
1	Introduction and orientation to the department	15-20 minutes followed by clinics (total-3 hrs)
2	Hand hygiene and barrier technique- Discussion & demonstration	15-20 minutes followed by clinics (total-3 hrs)
3	Instruments & Principles of Instrumentation discussion followed by demonstration of hand scaling procedure on patient	15-20 minutes followed by clinics (total-3 hrs)
4	Surface disinfection and general operator asepsis- Discussion followed by hand scaling exercise on patients	15-20 minutes followed by clinics (total-3 hrs)
5	Instrument and operator sterilization and disinfection- Discussion followed by hand scaling exercise on patients	15-20 minutes followed by clinics (total-3 hrs)
6	Patient screening , needle & sharp instrument safety- Discussion followed by hand scaling exercise on patients	15-20 minutes followed by clinics (total-3 hrs)

7	Disposal of contaminated waste and immunization- Discussion followed by hand scaling exercise on patients	15-20 minutes followed by clinics (total-3 hrs)
8	Sharpening of instruments – Demonstration followed by hand scaling exercise on patients	15-20 minutes followed by clinics (total-3 hrs)
9	Plaque, calculus, stains discussion followed by hand scaling exercise on patients	15-20 minutes followed by clinics (total-3 hrs)
10	Mechanical Plaque control discussion followed by hand scaling exercise on patients	15-20 minutes followed by clinics (total-3 hrs)
11	Chemical Plaque control followed by hand scaling exercise on patients	15-20 minutes followed by clinics (total-3 hrs)
12	Demonstration of Tooth polishing techniques followed by hand scaling exercise on patients	15-20 minutes followed by clinics (total-3 hrs)
13	Clinical features of normal Gingiva – clinical demonstration followed by hand scaling exercise on patients	15-20 minutes followed by clinics (total-3 hrs)
14	Clinical features of gingivitis – clinical demonstration followed by hand scaling exercise on patients	15-20 minutes followed by clinics (total-3 hrs)
15	Periodontal Ligament – discussion followed by hand scaling exercise on patients	15-20 minutes followed by clinics (total-3 hrs)
16	Disclosing agents discussion followed by hand scaling exercise on patients	15-20 minutes followed by clinics (total-3 hrs)
17	Desensitizing agents discussion followed by hand scaling exercise on patients	15-20 minutes followed by clinics (total-3 hrs)
18	Defense mechanism of gingiva discussion followed by hand scaling exercise on patients	15-20 minutes followed by clinics (total-3 hrs)
19	VIVA-VOCE on the last day of posting (20 th day)	3

8. **Recommended Text and Reference books, Journals and Atlases (as per your preference modify the title)**

1. Newman and Carranza's Clinical Periodontology – 13th edition
2. Fundamentals Of Periodontal Instrumentation And Advanced Root Instrumentation - 8th edition

9. **Scheme of examination:**

Theory: NA

Practicals: Viva –Voce (10 Marks)



SDM College of Medical Sciences & Hospital



SDM College of Dental Sciences & Hospital



SDM College of Physiotherapy &
SDM Institute of Nursing Sciences



Shri Dharmasthala Manjunatheshwara University



SDM Research Institute for Biomedical Sciences



Panoramic View of Campus