PROGRAMME SPECIFIC LEARNING OUTCOMES

The curriculum consists of a set of required courses providing a core of knowledge in basic medical science and its application to dentistry. Later part of the course further develops the core abilities and provides the student, a set of broadly useful knowledge, practice and skills applicable to a variety of settings. In every case, the required content includes both generic information and dental service applications of the outcome. The study and practice of dentistry are enhanced considerably by opportunities for observation and practice in a perfect professional setting. This places the students in a hands-on situation.

The learning outcomes as stated by the Dental Council of India and Pt Deendayal university, Chhattisgarh are followed by chhattisgarh dental college & research institute. The website of the institution provides a link to the stated outcomes and also effectively communicates the stated learning outcomes (generic and programme-specific) to all the faculty and students. The outcomes are clearly defined for each subject in under graduation and each speciality in post graduation. They are made reachable to all the stakeholders of the program through education, faculty workshops, student awareness workshops, student induction programs and faculty meetings. The program outcomes and program specific outcomes are achieved through a curriculum that offers a number of courses. Each course has defined course outcomes that are linked to the program outcomes and a set of performance criteria that are used to provide quantitative measurement of how well course outcomes are achieved. The course outcomes are thus directly and quantitatively assessed, and are tied to the program outcomes and program specific outcomes. Therefore if the course outcomes are attained, that provides direct quantitative evidence that program outcomes are attained.

The institute's performance and learning strategies are structured to facilitate the achievement of the intended learning outcomes by:

-Critically evaluating the quality and impact of its own work during and after its implementation.

-Identifying own learning needs and settling own learning goals.

-Engaging in collaborative approach and obtaining feedback.

The litmus test for ensuring that stated learning outcomes are achieved by the student's performances is in the annual university assessment.

Further evidence of success is reflected in the performance of the students in common entrance tests for PG examinations.

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CHHATTISGARH DENTAL COLLEGE
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PROGRAMME SPECIFIC LEARNING OUTCOMES

BDS

On completion of the BDS, students will be able to show Course learning outcomes in the following 5 domains:

GENERIC SKILLS

- ✓ Work as a member of a team
- ✓ Design and conduct scientific investigations
- ✓ Exhibit professional responsibility
- ✓ Have an awareness of ethical, social and cultural issues and their importance in the exercise of professional skills and responsibilities
- ✓ Value differences in health beliefs, lifestyles, ethnic and cultural background

PROFESSIONALISM

- ✓ The ability to apply practical skills and recognition their importance in health care.
- ✓ Have empathy, compassion, honesty, integrity, resilience and lifelong curiosity.
- ✓ Self-awareness, the ability to recognize when clinical problems exceed their knowledge and skill, and a willingness to seek help and/or to refer.
- ✓ The ability to identify and address their own learning needs
- ✓ A thorough understanding of the ethical principles and legal responsibilities involved in the provision of dental care to individual patients.
- ✓ Skills to use contemporary information technology for documentation including patient records, communication, management of information and applications related to health care.

SCIENTIFIC KNOWLEDGE

- ✓ Knowledge of the basic biological, medical, technical and clinical sciences in order to recognize the difference between normal and pathological conditions
- ✓ Skills required to prevent, diagnose and treat anomalies and illnesses of the teeth, and associated structures
- ✓ Knowledge of the management and interaction (pharmacological, physical, nutritional, behavioural and psychological) of important oral and medically-related conditions.
- ✓ Skills to provide treatment options based on the best available information.

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✓Scientific principles of sterilisation, disinfection and antisepsis and infection control and waste disposal.
✓ Knowledge of the hazards of ionising radiations and their effects on biological tissues, together with the regulations.
✓ relating to their use, including radiation protection and dose reduction
✓ Knowledge of research methods and their applications
✓ Knowledge of the moral and ethical responsibilities involved in the provision of care to individual patients, to populations and communities
✓ Understand basic principles of practice administration, financial and personnel management to a dental practice.

PATIENT CARE:
✓ The ability to communicate with patients including the ability to listen to, respond to, and provide appropriate information to patients
✓ Respect for patients' values and their expressed needs
✓ Skills to manage and the potential impact of chronic illness and disability on the patient's oral health
✓Appropriate skills to obtain a thorough dental, medical and social history and perform an accurate oral examination
✓The ability to integrate and interpret clinical findings and apply reasoning to arrive at an appropriate diagnosis or differential diagnosis
✓The ability to formulate an evidence-based and cost effective treatment plan in collaboration with the patient
✓The ability to perform appropriate dental procedures effectively and safely, with due regard for the patient's comfort including during emergency procedures
✓The ability to predict, prevent and correct deficiencies in patients' oral hygiene regimens and provide patients with strategies to control undesirable habits affecting the maintenance of oral and general health
✓Skills to alleviate pain and provide appropriate treatment outcomes.

DENTAL PROFESSION:
✓ Be an active participant in professional organisations, and an appreciation of the benefits of this participation
✓The ability to provide effective peer review in order to assist colleagues to improve their performance

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✓ Maturity and responsibility to maintain standards of dental practice at the highest level throughout a professional career

✓ The philosophy of lifelong learning and accept that continuing professional development is required for professional growth.

THE SOCIETY

✓ Ability To Contribute To Their Communities Wherever They Choose To Live And Work

✓ Skills of Oral Health Promotion Including Primary and Secondary Prevention and Health Education

✓ Skills to Identify the Requirements of Health Care Systems in a Culturally Diverse Society

✓ Respect Community Values, Including an Appreciation of a Diversity of Backgrounds and Cultural Values

✓ Knowledge of the Relationship between Environmental Issues and the Oral Health and Health of Local Communities and Society.

MDS

The objective of the post-graduate training is to train a student so as to ensure higher competence in both general and special area of interest and prepare him or her for a career in teaching, research and speciality practice. These objectives are achieved as:

KNOWLEDGE

(i) Demonstrate understanding of basic sciences relevant to speciality

(ii) Describe etiology, pathophysiology, principles of diagnosis and management of common problems within the speciality in adults and children

(iii) Identify social, economic, environmental and emotional determinants in a given case and take them into account for planned treatment

iv) Recognise conditions that may be outside the area of speciality and to refer them to the concerned specialist

(v) Update knowledge by self study and by attending courses, conferences and seminars pertaining to speciality

(vi)Undertake audit, use information technology and carry out research in both basic and clinical with the aim of publishing or presenting the work at various scientific gathering.

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SKILLS

(i) Take a proper clinical history, examine the patient, perform essential diagnostic procedures and order relevant tests and interpret them to come to a reasonable diagnosis about the condition;

(ii) Acquire adequate skills and competence in performing various procedures as required in the speciality.

HUMAN VALUES, ETHICAL PRACTICE AND COMMUNICATION ABILITIES.

(i) Adopt ethical principles in all aspects of practice

(ii)Foster professional honesty and integrity

(iii) Deliver patient care irrespective of social status, caste, creed, or religion of the patient.

(iv)Develop communication skills, to explain various options available and obtain a true informed consent from the patient.

(v)Apply high moral and ethical standards while carrying out human or animal research

(vi) Be humble and accept the limitations in his knowledge and skill and to ask for help from colleagues when needed.

(vii) Respect patient's rights and privileges including patient's right to information and right to seek a second opinion.

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Teaching – Learning Strategies

CHHATTISGARH DENTAL COLLEGE & RESEARCH INSTITUTE

Sundra, Rajnandgaon, CG:491441

Run by - Youth Foundation of India

TABLE OF CONTENTS

TEACHING –LEARNING STRATEGIES

DIDACTIC (1/3RD)

STRATEGY	TOTAL HOURS ALOTTED	YEARWISE DISTRIBUTION		TEACHING MEDIA
		III BDS	IVBDS	
LECTURES	65hrs + 4 hrs REMEDIAL CLASSES Total= 69 hrs	20hrs	45hrs	LCD BLACKBOARD & CHALK POWERPOINT PRESENTATION ONLINE ZOOM CLASSES

NON-DIDACTIC (2/3RD)

STRATEGY	TOTAL HOURS ALOTTED	YEARWISE DISTRIBUTION		TEACHING MEDIA
		IIIBDS	IVBDS	
HOURS ALOTTED	200hrs	70hrs	130hrs	
PRACTICAL/CLINICAL TEACHING	141	46	95	CHAIRSIDE TEACHING AND EXAMINATION UNDER SUPERVISION
DEMONSTRATION TEACHING	22	7	15	DEMONSTRATIONS OF RADIOGRAPHIC TECHNIQUES, AS PEER TEACHING
TUTORIALS	23	9	14	-
SEMINARS	-	-	-	LCD,BLACKBOARD
PROBLEM BASED LEARNING	7	3	4	ON DEMO RADIOGRAPHS, CASES
INTEGRATED TEACHING	2	-	2	LCD, PRE CLINICAL, PEER TEACHING
ANY OTHERS	-	-	-	-
TOTAL	195	65	130	

COURSE CONTENT

DIDACTIC

TOTAL HOURS ALLOTED	YEAR	TOPICS	MUST KNOW	DESIRABLE TO KNOW	NICE TO KNOW
20 hrs	III BDS	Introduction to OMR 1 Hr	**Medicine** - Definition of Oral Medicine, Oral radiology, Identification of various oral lesions, types of diagnosis, how to arrive at a diagnosis, differential diagnosis, basic investigation methods, proper management and treatment. **Radiology** – Introduction to radiology, Definition of Oral radiology, basic radiology.	Aims & objectives	Scope of Oral Medicine and Radiology, making accurate diagnosis and treatment of various oral lesions.
		Case History (2hrs)	Definition, HOPI,past medical history, dental history, general examination, clinical examination, diagnosis	Investigative procedures, types of diagnosis	Differential diagnosis & treatment planning
		History of Radiology (1 hr)	Discovery of X-rays and xray equipment	Progression of field of dental radiology.	Name of scientist and their discoveries
		Radiation Physics (1 hr)	Baisc Considerations Electromagnetic spectrum Xray machine	Ionization, Types of radiation	Transformers and their functions
		Properties of X-rays (1 hr)	Definitions, Properties, Factors affecting	Use of each property in radiology	Inter property relationship
		Radiation Protection (1 hr)	Various Radiation effects, Action theory, Effects of radiation on cellular level, Short term and long term damages, source of radiation, Dosimetry, Protection for patient and operator	Effects of radiation on various organs	-
		Ideal radiograph (1 hr)	Definition, Characteristics of ideal radiographs, Factors affecting, density, contrast	First and second degree factors, sharpness, magnification, distortion	

		Red and White Lesion (2hrs)	*Definition, Classification, Etiopathogenesis, clinical features, management*	*Chair side investigation*	*Differential diagnosis*
		Faulty radiographs (1 hr)	*Classification, causes, types of errors, Processing error,*	*Exposure parameters*	*Explanations of errors in detail*
		X-ray film and accessories (1 hr)	*Definition, classification, Composition of the film, Intraoral films, Sizes, Types of film holders, Properties of x-rays*	*Extraoral films,*	*Extraoral cassettes, Intensifying screen, Composition, storage and protection, grids, filtration*
		X-ray film and processing (1 hr)	*Definition, classification, Film coating, Composition of the film, Latent Image and its formation, processing methods, processing solutions and its functions, self developing films*	*General layout of dark room, Equipments, Advantages and disadvantages*	*Advanced diagnostic aids and rapid processing chemicals*
		Dental caries (1 hr)	*Definition, critical pH, Various radiographs for caries detection, Different appearances of caries in radiographs,*	*Limitations*	*Radiographic differential diagnosis of caries*
		Periodontal Disease (1hr)	*Classification, Role of radiographs in detection of periodontal condition, Detection of mild, moderate and severe periodontitis, periodontal abscess*	*Appearance of horizontal and vertical bone loss in radiographs,*	*Differential diagnosis*
		Radiation Biology (1 hr)	*Various Radiation effects, Action theory, source of radiation, effects of radiation on cellular level, Short term and long term damages, Dosimetry, Protection for patient and operator*	*Effects of radiation on various organs ,*	*About radiation in detail*
		Projection Geometry (1 hr)	*Principles of projection geometry, Image sharpness and resolution, Size and shape distortion, Techniques, Object Localization, Peripheral Eggshell effect*	*Various other advanced radiology*	*Techniques used for various other advanced radiology*
		Normal Anatomical	*Structures appearing radiopaque and radiolucent,*	*Gray scale*	*Normal variants and*

		Landmarks (2 hrs)	*Supporting structures, various landmarks of maxilla and mandible, restorative material,*		*radiographic appearances of various bony pathologies*
		Ethics in Dentistry (1 hr)	*Need for radiograph, Use of proper barriers while taking radiographs, maintaining proper distance and following proper protocols, ALARA principle*	-	-
45hrs	*IV BDS*	*Vesiculobullous Lesion*	*Introduction, Definitions, Classification, Etiopathogenesis, Clinical features, Oral manifestations, Investigations, management & treatment along with doses*	*Histopathological findings & Diagnosis, Advanced Investigations*	*Differential Diagnosis*
		Benign Lesion of oral cavity : a) Soft tissues b) Tumors	*Introduction, Definitions, Classification, Variants of normal, Etiopathogenesis, Clinical features, Oral manifestations, Investigations, management & pharmacological treatment along with doses*	*Histopathological findings*	*Differential Diagnosis*
		Development Disorders of teeth	*Introduction, normal anatomy of different teeth, definition, pathogenesis, variations in size, shape, number, clinical features, radiographic features, management*	*Acquired pathologic conditions*	*Differential diagnosis, detection and identification of pulp stones*
		Oral cancer	*Introduction, etiopathogenesis, risk factors, clinical features, investigations, management & pharmacological treatment along with doses*	*Diagnostic aids, histopathological features, Radiotherapy, chemotherapy and chemotherapeutic agents*	*Advanced investigatory procedures,*
		Premalignant Lesion of oral cavity and its management	*Introduction, Definition etiopathogenesis, risk factors, clinical features, investigations, management & treatment*	*Biopsies*	*Differential Diagnosis*

		Fibro-osseous	*Introduction, Definition etiopathogenesis, clinical features, investigations,*	*Associated syndromes*	*Differential Diagnosis*

		lesion	*management & treatment*		
		Systemic diseases manifested in Jaws	*Introduction, definition, classification, pathogenesis, clinical features, radiographic features, disorders of calcium metabolism, management*	*Lab investigations, syndromes*	*Differential diagnosis*
		Salivary Gland diseases	*Salivary Gland anatomy and physiology, Past and present medical history, various salivary gland diseases, Sialochemistry, salivary gland tumors, Xerostomia, diagnosis, Blood disorders, management & treatment*	*Salivary gland biopsy, serological evaluation*	*Advanced investigation and differential diagnosis*
		Diseases of tongue and lip	*Introduction, classification, etiopathogenesis, various abnormalities of tongue and lip, causes, clinical features, investigations, management*		*Differential diagnosis*
		Blood Disorders	*Introduction, basic mechanism, classification, pathophysiology, clinical findings, congenital coagulopathies, identification of dental patients with bleeding disorders, oral manifestations, dental management*	*Lab investigations*	*Other disease related coagulaopathies and its management*
		Pulp and Periapical Infection	*Introduction, normal anatomy and function, classification of pulp and periapical diseases, history, Difference between acute and chronic pulpitis, reversible and irreversible pulpitis, periapical abscess: clinical as well as radiological aspect, investigation, treatment*	*Various other investigations*	*Other periapical diseases and differential diagnosis*

		OPG	*Introduction about OPG, Principle, indications, interpretation*	*Patient positioning*	*Anatomy of OPG machine, errors*
		Digital radiograph	*Introduction, definitions, working principle, indications, difference between analog versus digital, digital receptors (SSD, CCD, CMOS, PSP, flat pannel detectors), image analysis,*	*Advantages and disadvantages, common problems in receptor exposure and handling*	*Detector sensitivity, limitations, image duplication*
		CT, MRI, USG, Nuclear Medicine, CBCT	*Introduction, principle, Hounsfield units, artifacts, detectors, need for using such modalities, indications, T1 & T2 relaxation,*	*Advantages and disadvantages, PET, SPECT*	*Limitations, Anatomy and parts of machines, various contrasting gents*
		TMJ	*Introduction, anatomy, function, clinical examination, radiological examination, basic clinical and radiographical knowledge of TMJ relationship, clinical features, various TMJ disorders including soft tissue abnormalities, investigations, treatment*	*Other investigatory methods like MRI, CT*	*Identification of radiographic abnormalities of TMJ disorders,*
		Maxillary Sinus	*Normal development, anatomy, functions, definitions, clinical examination, variations, clinical features, radiographic features, various inflammatory diseases, benign and malignant tumors, management,*	*Applied diagnostic imaging*	*Radiographic differential diagnosis*
		Trauma	*Introduction, indications, radiological signs of fractures, traumatic injury to teeth, definitions, clinical features, radiological features, identification of maxillary and mandibular fractures, Condylar fractures, management*	*Imaging of various fractures related to teeth and facial bones*	*Advanced imaging modalities for fractures*

		Forensic Odontology	*Introduction, Definition, methods of identification, various radiographic views, bitemarks, age estimation, digital autopsy*	*Advantages and disadvantages*	*Identdification of dental implants on radiographs*
		Orofacial pain	*Introducion, definition, classification of OFP, proper history taking, pathophysiology etiopathogenesis, physical examination acute and chronic pain, risk factors, clinical features, investigations, management & treatment*	*Diagnostic imaging, diagnostic nerve blocks, laboratory test*	*Differential Diagnosis of various OFP disorders*
		Cyst of the Jaws	*Introduction, definition, classification, etiopathogenesis, clinical features, radiographic features, investigations, treatment*	*Other advanced investigations*	*Differential diagnosis, treatment in detail*
		Soft tissue calcification	*Introduction, definition, classification, clinical features, radiographic features, treatment*		*Radiographic differential diagnosis*
		HIV: Oral Manifestation	*Stages of HIV, Clinical features, oral manifestations, laboratory investigations of dental patients suffering from HIV*	*Structure of virus, Pathogenesis, etiology,*	*Differential diagnosis*
		Extra- oral radiographic techniques	*Waters projection, SMV projection, their principle, indications, positioning of patient and placement of cassette, Point of entry, anatomical landmarks*	*Intensifying screens, grids, extraoral cassette, sizes*	*Various other extraoral radiographic techniques exposure parameters, errors, identification of the errors and pathologies*
		Oral Pigmentation	*Introduction, definition, classification, causes etiopathogenesis, sources, clinical features, diagnosis, management*	*Histopathological findings*	*Differential diagnosis*

		Radiographic Interpretation	Principle of radiographic interpretation, Need for interpretation, Complete analysis of intraosseous lesions.		Ways to proceed further, referral to a specialist
		Radiology of special needs	Should identify the patients requiring special radiographic needs, modifications of radiographic techniques, management of patients with such needs		

NON-DIDACTIC

YEAR	PRACTICAL	CLINICAL	DEMONSTRATION	TUTORIAL	REGULAR TEST PAPER	INTREGRATED TEACHING	HOURS ALLOTED
	STRATERGY						
	TOPICS						
III BDS	**1) Pre-clinical Tracing landmarks (5 hrs)** **- Abbreviations (2 hrs)** **- Case History Discussion (6 hrs)** **- Discussion on anatomical landmarks (6 hrs)** - Discussion on X- ray tube, intraoral, extraoral films, its parts and	Case history taking on patient- (16hrs) General examination , intraoral and extraoral examination on patients- (8hrs) IOPA taking on patients and processing - (4hrs)	Demostrating General examination (2 1/2 hrs) Demonstrating extraoral examination (1hr) Demonstrating intraoral examination (30 mins) Demostrating IOPA techniques (1hrs)	Discussion on - Case history taking (1hr) Discussion on (2 hrs) – general examination Discussion on - IOPA technique and processing (1hr)	Regular discussion and test (1 hr)	Library utilization (1hr)	70hrs

	function (3 hrs) *-Discussion on IOPA techniques (3 hrs)* *-Discussion on processing (2 hrs)*		*Demostrating processing techniques (1 hr)*				
	27hrs	***28hrs***	***6hrs***	***4hrs***		***1hr***	***66hrs***
IV BDS	*Showing radiographic technique, angulation, film placement, side determination to the staff. (1hr)* *Processing of radiographic films. (1hr)*	*Case history taking on patient- (28hrs)* *Performing General examination on patients- (16hrs)* *Extraoral examination of various lesions- (12hrs)* *Intraoral examination of various mucosal lesions (12hrs)* *Interesting special cases (15 hrs)* *Extraoral Radiogrphic techniques - (10hrs)*	*Demostrating General examination (2 1/2 hrs)* *Demonstrating extraoral examination (1hr)* *Demonstrating intraoral examination (30 mins)* *Demostrating IOPA techniques (1hrs)* *Demostrating processing techniques (1 hr)*	*Peer teaching - Case history taking (1hr)* *Peer teaching (2 hrs) – general examination* *Peer teaching - IOPA technique and processing (1hr)* *Local anasethesia & its technique (1hr)*	*Regular test paper solving and submission (1hr)*	*Case discussion and treatment planning (6 hrs)*	*130hrs*
	2hrs	***93hrs***	***6hrs***	***4hrs***	***1hr***	***6hrs***	***112hrs***

Professor & Head
Dept. of Oral Medicine & Radiology,
Chhattisgarh Dental College & Research Institute
Rajnandgaon (C.G.)

DEPARTMENT OF PROSTHODONTICS, CROWN AND BRIDGE INCLUDING IMPLANTOLOGY

TEACHING –LEARNING STRATEGIES

DIDACTIC (1/3RD)

STRATEGY	TOTAL HOURS ALOTTED	YEARWISE DISTRIBUTION			TEACHING MEDIA
		II BDS	III BDS	IVBDS	
LECTURES	135hrs + REMEDIAL CLASSES	20hrs	35hrs	80hrs	LCD BLACKBOARD & CHALK POWERPOINT PRESENTATION ONLINE CLASSES

COURSE CONTENT

DIDACTIC

TOTAL HOURS ALLOTED	YEAR	TOPICS	MUST KNOW	DESIRABLE TO KNOW	NICE TO KNOW
20hrs	II BDS	Introduction to Prosthodontics – Scope and Definition (3 hrs)	Masticatory apparatus and function Various branches of Prosthodontics and prosthesis Requirements of prosthesis- Physical, biological, esthetic considerations.		
		Introduction to components of Prosthesis (3 hrs)	**Complete Denture Prosthesis:** 1. Various surfaces (Border and surface anatomy). 2. Components – Base and Teeth. **Removable Partial Denture: introduction**		

			Classification & components ***Fixed Partial Denture: introduction*** *Classification & components*		
		All related definitions and terminologies from glossary (1 hr)			
		Fixed Partial Dentures 3 hrs	Principles of tooth preparation		
		Introduction to all steps involved in fabrication of Prosthesis Impression making 2 hr	Definition and requirements and types of impressions Various materials used for different impressions Different theories of impression making		
		Impression Trays 1 hr	Definition, classification, materials, advantages and disadvantages Selection of trays	Special trays Spacer design	
		Introduction to jaw relation record 1 hr	Definition and type Temporary denture base – Indications, Advantages, Disadvantages, materials	Guide for esthetics – central line, lip line, canine	

			used Occlusion rims - materials, shape, dimensions Level of occlusion plane Clinical procedures of jaw relation recording in brief	line, smile line	
		Articulators and face bow 1 hr	Need for articulators Definition, classification, parts, advantages, disadvantages of articulators Definitions, classification, parts, advantages, disadvantages and purpose of face bow transfer	face bow transfer to an articulator on a dummy	
		Preliminary Arrangement Of Artificial Teeth 2 hrs	Guides for preliminarily arranging anterior teeth Setting Maxillary anterior teeth in wax for try in Setting mandibular anterior teeth in the wax for try in Setting posterior teeth	Importance of proper Anteroposterior positioning of the anterior teeth	**Relationship to incisive papilla** **esthetics and leverage**

			for try in		
		Processing Procedures 2 hrs	Flasking Dewaxing Packing Curing	Finishing and polishing of acrylic dentures	
		Casting Procedures 2 hrs		Preparation of die Wax pattern Investing Burnout Casting Finishing and polishing	
35hrs	*III BDS*	*Introduction to Prosthodontics 1 Hr*	*Definition Of Prosthodontics Anatomy, physiology & histology of the stomatognathic system*	*Aims & objectives,*	*scope of prosthodontics*
		Biomechanics of the edentulous state 2 hr	*Mechanism OF TOOTH & COMPLETE DENTURE support*	*Mandibular movements & occlusion*	*Changes in TMJ*
		Effect of loss of teeth 1 Hr	*On general health*	*On masticatory apparatus*	*Need to replace lost teeth*
		Tissue response to complete denture prosthesisin the aging edentulous patient 1 Hr	*Soft tissue changes*	*Denture stomatitis*	
		Effects of aging 1 Hr	*Oral changes*	*Maxillomandibular relation*	Dietary &Psychologic changes
		Preparing the patient for complete denture prosthesis 1 Hr			

		Diagnosis and treatment planning for patient with some teeth remaining 3 hrs	*Diagnostic procedures*	*Systemic evaluation* *Treatment plan*	***Temporomandibular joint disorders***
		Diagnosis of patient with no teeth remaining *2hrs*	*General observations affecting diagnosis*	*Intra oral examination*	
		Development of treatment plan *Communicating with the patient* *1 Hr*	*Nutrition in complete denture patients*		
		Identification and management of the patient with problems *1 Hr*	*Patient behavior characteristics*	*When and how to refer the patient to a specialist for treatment*	
		Use of Consultation Report *3 hrs*	*Contents of the Report* *Economics of prosthodontic service*	*Surgical & non surgical procedures*	
		Rehabilitation of the Edentulous Patient *2hrs*	*Biologic considerations for Maxillary Impressions*	*Microscopic anatomy*	
		Selecting artificial teeth for edentulous patient *3 hrs*	*Anterior & posterior tooth selection*	*Dentogenic concept*	
		Mouth preparation 1hr	*General considerations*	*Pre-prosthetic surgery*	
80hrs	***IV BDS***	*1. Impression procedures* *3 hrs*	Classification of Impressions	*Aims and objectives theories of impression making*	*Techniques of impression making*
		2.Biologic considerations in jaw relations and jaw movements	*Anatomic factors* *Temporomandibular*	*Classification of Jaw relations*	*Face bow*

		2 hrs	*Articulation*		
		3. Movements of mandible *1 hr*	*practical significance*	*methods of studying mandibular movements axes of rotation*	***Its influence on TMJ***
		4.Biological considerations in vertical jaw relations *2 hrs*	*Anatomy and Physiology of Vertical jaw Relations* *Establishment of the vertical maxillomandibular relations for complete denture prosthesis*	*Methods of determining the vertical dimension*	***Tests of vertical jaw relations with the occlusion rims***
		5.Biological considerations in horizontal jaw relations 2 hrs	*Centric relation*	*Recording centric relation*	***Methods of recording centric relation***
		6.Perfection and verification of jaw relation records 1 hr	*Verifying Vertical Dimension & the centric relation & occlusion*	*Facial And Functional Harmony With Anterior Teeth*	***concept of harmony with sex personality and age***
		7.Completion of the try in : Eccentric Jaw relation adjustment, Protrusive and lateral relations *2 hrs*	*Arranging posterior teeth for functional harmony*	*Differences in artificial occlusion and natural occlusion* *Occlusal schemes used in complete dentures for the edentulous patients*	***Appearance and Functional Harmony of Denture Bases***
		8. Occlusion *2 hrs*	*Balanced Occlusion*	*Various factors of balanced occlusion*	
		9. Rehabilitation of the partially edentulous patients (overdentures) *2 hrs*	*tooth-supported complete dentures* *-indications and contraindications for over dentures*	*selection of abutment teeth*	***clinical procedures***
		10. Immediate Denture Treatment	indication for immediate dentures	delayed and transitional dentures	treatment planning

		2 hrs	*-contraindications to immediate denture*		clinical procedures
		11. Relining or Rebasing of Complete Dentures *Repair Of Complete Dentures And Duplication Of Casts* 2 Hrs	*treatment rationale* *diagnosis* *clinical procedures* *Maxillary and mandibular fracture repair*	*duplication of casts*	*-functional impression technique* *-chair side technique*
		12. Osteo Integrated Supported Prosthesis (Dental Implants) *Geriatric Dentistry 1 hr*	*maladaptive denture behavior* *-use of dental implants*	*patient considerations* *-tissue integration in the edentulous patient*	*Management of aged, senior citizens, physically, mentally handicapped patients*
		13. Removable partial denture prosthesis *3 hrs*	*Introduction and scope Terminology* *Classifications*	*Examination. diagnosis and treatment planning*	*Components of removable partial dentures and their functions*
		14. Major connectors *3 hrs*	*Mandibular Major connectors* *Maxillary Major connectors*		
		15.Minor connectors *1 hr*	Functions Form and location Tissue stops Finishing lines. Reaction of tissues to metallic coverage Form of occlusal rests and rest seats		
		16. Rests and rest seats *1 hr*	*Types*	Possible movements of partial denture *Support for rests*	

		17.Direct retainers *3 hrs*	*Internal attachments* *Extra coronal direct retainers*	*Criteria for selecting a given clasp design* *Basic principles of clasp design* *Designs of clasps*	
		18. Indirect retainers *2 hrs*	*Denture rotation about an axis* *Factors influencing effectiveness of indirect retainers*	*Forms of indirect retainers*	*Denture base consideratio ns* *Tooth supported partial denture base*
		19. Distal extension partial denture base *1 hr*	*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*
		20. Stress breakers *1 hr*	*Types of stress breakers* *Advantages of stress breakers* *Disadvantages of stress breakers*	*Stress breaking principles* *Principles of removable partial denture design*	*Differentiatio n between two main types of removable partial dentures*
		21. Surveying *3 hrs*	*Description of a dental surveyor* *Purposes of a surveyor*	*Step by step procedures in surveying a diagnostic cast*	*Blocking out the master cast* *Mouth preparation*
		22. Impression materials and procedures for removable partial dentures *3 hrs*	*Rigid materials* *thermoplastic materials* *elastic materials* *impressions of the partially edentulous arch*	*upport for distal extension removable partial dentures* *-factors influencing the support of distal extension bases*	*method for obtaining functional support for distal extension base*

			individual impression trays		
		23. Occlusal relationship for removable partial denture *3 hrs*	*difference in natural and artificial occlusion* *materials for artificial posterior teeth*	*labatory procedures* *duplicating a stone cast* *waxing the partial denture framework*	*remounting and occlusal corrections to an occlusal template* *polishing the denture*
		24. Repair and additions to removable partial denture *1 hr*	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		*Repair by soldering*
		25. Temporary removable partial denture *1 hr*	Appearance Space maintenance Reestablishing occlusal relationships Conditioning teeth and residual ridge *Conditioning the patient for wearing a prosthesis*		
		26. Removable partial denture considerations in maxillofacial	Maxillofacial Prosthodontics Intraoral prosthesis	Intraoral prosthesis design	Class I resections Class II
		prosthodontics *1 hr*	design considerations	considerations Maxillary prosthesis	resections Mandibular flange prosthesis

				Mandibular prosthesis *Treatment planning*	
		27. Fixed prosthodontics (crown and bridge prosthesis) 2 hrs	*Introduction and definitions.* *Terminologies*	*Indication and contraindications*	
		28.Examination, diagnosis and treatment planning and radiological interpretations. 1 hrs	*Radiological interpretations*		
		29. Selection and choice of abutment teeth 1 hr			
		30. Biomechanical principles of tooth preparation *3 hrs*	*Preservation of tooth structure* *Retention and resitance form* *Structural durability of the restoration* *Marginal integrity* *Preservation of the periodontium* *Finish lines and the periodontium*	*Occlusal bevels* *Flares*	*Armamentariu m Instrumentati on*
		31. Full veneer crowns *3 hrs*		*Maxillary and mandibular posterior three quarter crowns Anterior three quarter crown Pin modified three*	
				quarter crowns Seven eighths crown Proximal half crowns Inlay MOD onlay	

		32. Anterior/ posterior porcelain fused to metal crowns *All ceramic crowns* *3 hrs*	*Preparation modifications for damaged teeth* *Modifications for damaged vital teeth* *Conversion of defects into retentive features*	*Solution to common problems*	
		33.Endodontically treated tooth *3 hrs*	*Preparation modifications for special situations* *Preparation for fixed bridge abutment* *Preparation for removable partial denture abutments*		
		34. Isolation of working field and temporary protections of prepared tooth *Gingival retractions and impression procedures* *3 hrs*	*Construction of DIES of working models, direct and indirect technique.*		*Techniques of fabrication of retainers and materials used, its application with reference of Fabrication & esthetics.*
		35. Selection and fabrication of pontics and esthetics. *2 hrs*	*Pontic design* *Connectors, stress - breakers and assembly of fixed bridges.*		*Finishing, cementing and maintenance of crowns and bridges*
		36. Implants *3 hrs*	*Osseo integrated - Supported prosthesis.* *Introduction and scope*	*Evaluation pre-osseointegration and preparation treatment plan,*	*Examination, diagnosis and treatment*
			advantages and disadvantages. *Classification* *Applied material science, patient*	*applied surgical procedures.* *Osseointegrated supporting prosthesis occlusion, esthetics, insertion and*	*planning and other clinical and Laboratory procedures*

				maintenance.	
		37. Maxillofacial prosthesis *3 hrs*	*Restoration of congenital and acquired oral and para-oral defects. (facial prostheses, including osseointegrated support facial prosthesis).*	*Splints* *Obturators* *Carriers* *Bruxism and management of occlusal attrition*	
		38. Miscellaneous *2 hrs*	*Ethics, law,*	*Patient and practice management in prosthodontic clinic jurisprudence an forensic odontology - in prosthodontic practice* *Assistants - laboratories and clinic* *Communication methods - technician work* *Authorization, methods and legality*	
		39. Emergencies in prosthodontics *2 hrs*	*During impression recording in partial, complete edentulous situation and maxillofacial defects.* *Precautions and management of traumatic accidents in tooth preparation use of constrictor in anaesthetic solutions and retraction cords.* *Ill fitting dentures broken clasps, facings*		

			Broken prosthesis *Swallowing prosthesis* *General management of elderly and c.v.s. andimmuno compromised patients.*		

NON-DIDACTIC

STRATERGY						
YEAR	***PRACTICAL***	***CLINICAL***	***DEMONSTRATION***	***TUTORIAL***	***SEMINAR***	***INTREGRATED TEACHING***
TOPICS						
III BDS	*Journal write up on topics* *Case history* *Treatment planning* *Preclinical work* *Rpd designing*	*Complete denture:* *Case history taking on patient-02* *Complete denture patient: 02* *Removable Partial denture:* *Case history taking on patient-02* *RPD: 02-03 patients*	***Complete denture steps:*** *1. Primary impression* *2. Final Impression* *3. Jaw relation* *4. Try-in* *5. Denture insertion* ***Removable partial Denture:*** *1. Alginate impression* *Fixed partial*	*Infection control* *Case history taking* *Pouring & mounting dentulous cast on articulator*		*Library utilization*

			denture: *tooth preparation on patient*			
IV BDS	*1) Journal write up on topics* *Case history* *Treatment planning* *Preclinical work* *Tooth Preparation on model – 10* *RPD – Surveying of cast*	*Case history taking on patient-03* *Complete denture patient: 02* *Removable Partial denture:* *Case history taking on patient-02* *RPD:* *02-03 patients*		*Discussion on case history* *Relining & rebasing* *Repair of denture*	*Seminar write up submission*	*Library utilization*

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DEPARTMENT OF PEDODONTICS

& PREVENTIVE DENTISTRY

TEACHING –LEARNING STRATEGIES

DIDACTIC (1/3RD)

STRATEGY	TOTAL HOURS ALOTTED	YEARWISE DISTRIBUTION		TEACHING MEDIA
		III BDS	IVBDS	
LECTURES	65hrs + 6 hrs REMEDIAL CLASSES Total= 71 hrs	20hrs	45hrs	LCD BLACKBOARD & CHALK POWERPOINT PRESENTATION ONLINE ZOOM CLASSES

NON-DIDACTIC (2/3RD)

STRATEGY	TOTAL HOURS ALOTTED	YEARWISE DISTRIBUTION		TEACHING MEDIA
		IIIBDS	IVBDS	
HOURS ALOTTED	200hrs	70hrs	130hrs	
PRACTICAL/CLINICAL TEACHING	141	46	95	MODEL, CHAIRSIDE TEACHING, ON PATIENTS
DEMONSTRATION TEACHING	22	7	15	VIDEOS, ON PATIENTS/ON MODEL DEMONSTRATIONS
TUTORIALS	23	9	14	-
SEMINARS	-	-	-	LCD, BLACKBOARD
PROBLEM BASED LEARNING	7	3	4	CASE SCENARIOS
INTEGRATED TEACHING	2	-	2	LCD, DEMONSTRATION ON MODELS, CHARTS
ANY OTHERS	5	2	3	SELF DIRECTED LEARNING
TOTAL	200	67	133	

COURSE CONTENT

DIDACTIC

TOTAL HOURS ALLOTED	YEAR	TOPICS	MUST KNOW	DESIRABLE TO KNOW	NICE TO KNOW
20 hrs	III BDS	Introduction to Pedodontics 1 Hr	Definition Of Pedodontics Difference between adult and child patient.	Aims & objectives,	scope of pedodontics & history.
		First dental visit 1hr	Clinical set up		
		Infant Oral Health Care. 4hrs	Anticipatory Guidance	Dental home	Caries risk assessment
		Dental Caries 5hrs	Definition, Theories/ Etiology, Diagnosis Clinical classification ECC/ Rampant caries		Recent advances in diagnosis of caries
		Diet & Dental Caries 2hrs	Definitions, diet chart	Diet counseling	Sugar studies
		Diet & Nutrition 2hrs	Micro & Macro nutrients	Food pyramid	
		Chronology, Morphology of primary & permanent teeth, Tooth eruption & shedding 2hrs	Difference between primary and permanent teeth. Chronology of primary & permanent teeth. Sequence of eruption	Theories of eruption Shedding. Teething –signs & symptoms, clinical features, treatment & complications	
		Development of occlusion & dentition. 2hrs	Development stages of occlusion. Spaces in primary dentition. Molar relation in primary & permanent dentition Self correcting anomaly.	Stages of Dev of teeth.	
		Fluorides 5hrs	Introduction, MOA of Fluoride, Topical Fluorides	Systemic Fluoride ,	History, Fluoride toxicity Defluoridation

		Child Abuse and Neglect. *2hrs*	*Definition of child abuse & neglect.* *Types of neglect.* *Dental age assessment.* *Role of pedodontist.*	*Types of bite mark and mechanism*	***Factors, governmental organizations involved***
		Case History and diagnosis in Pediatric Dentistry. *2hrs*	*Case history taking, extraoral & intraoral examinations.* *Diagnosis &Treatment planning*		***Advanced diagnostic aids***
		Plaque control. *2hrs*	*Definition, critical pH and mechanism of plaque formation, mechanical oral hygiene aids used in children.* *Home oral hygiene instructions for various age groups.*	*Chemical plaque control in children.*	
		Pit and fissure sealant. *1hr*	*Definition, types & classification, mechanism of action, procedure.*	*Preventive resin restoration*	
		Dental Radiology. *1hr*	*Types of radiographs, composition of films, types of films, intra oral radiographs.*		***Extra oral radiographs and advances***
45hrs	*IV BDS*	*Child Psychology* *5-6hrs*	*Introduction* *Classification, Theories* *Behavior learning theories.*	*Importance of child psychology*	***Mahler's & Maslow's theories.***
		Behaviour management *4-5hrs*	*Introduction & definitions* *Behaviour rating scales* *Non-pharmacological management*	*Factors influencing Behavior.*	***Pharmacological management of behavior.***
		Operative Dentistry *2hrs*	*Isolation techniques, Morphologic Considerations in cavity preparation.* *Principles of cavity preparation*	*Control of pain* *ART*	***Minimal intervational cavity design***
		Pediatric Endodontics *5hrs*	*Introduction, Pulpal diseases/classification* *Deep caries management IPC/DPC* *Pulpotomy/Pulpectomy* *Apexification.*	*Pulp-dentin complex* *Apexogenesis*	

		Crowns in Pediatric Dentistry 3hrs	*Introduction classification Indications contraindications*	*Crown selection/ preparation*	*Modifications Crowns for Anterior teeth*
		Traumatic injuries of teeth 5hrs	*Etiology/Classification, Rx planning & Preventive measures, history taking & examination, investigation Management of traumatic hard tissue.*		*Management of soft tissues trauma Splinting techniques*
		Space maintainer/ Regainers 4hrs	*Terminology/ Definitions, Classification Indications, contraindications of removable & fixed space maintainers.*		*Fabrication of space maintainer Armamentariu m Space regainers*
		Oral Habits 4hrs	*Introduction/ Definitions Classification of Habits, in detail management of thumb sucking, tongue thrust and mouth breathing habits.*		*Bruxism, lip biting, nail biting, self injuries habits*
		Dentistry for special child 3hrs	*Definition, classification of handicap. Management of down's syndrome, cerebral palsy, epilepsy Preventive measures.*		*Deafness, blindness, autism*
		Management of medically compromised children 3hrs	*Management of heart diseases, Asthma, hematological diseases in children.*		*Management of diabetes mellitus renal & viral infections in children*
		Gingival and Periodontal Diseases in children 2hrs	*Introduction, Normal gingiva & Periodontium in children.*	*Acute gingival diseases*	*Periodontal diseases in children*

		Preventive & Inteceptive Orthodontics 2hrs	*Definition, correction of crossbite. Serial extraction*	*correction of midline diastema crowding*	*Arch expansion and pre orthodontic trainer.*
		Dental emergencies in children 2hrs	*Physical evaluation of child. Management of syncope, anaphylaxis, respiratory distress, epilepsy, cardiac arrest*		

NON-DIDACTIC

STRATERGY							
YEAR	*PRACTICAL*	*CLINICAL*	*DEMONSTRATION*	*TUTORIAL*	*SEMINAR/SELF LEARNING*	*INTREGRATED TEACHING*	*HOURS ALLOTED*
TOPICS							
III BDS	*I) Journal write up on topics* *–prescription writing & its abbreviations* *-calculation of drug dosage* *- guidelines on appropriate use of analgesic & antibiotics* *- difference between primary & permanent teeth with diagrams* *- difference in cavity preparation of*	*Case history taking on patient-05 (9hrs)* *Oral prophylaxis-05 (8hrs)* *Topical fluoride application - 05 (4hrs)*	*Making of C-Clasp, Adams Clasps, labial bow (2hrs)* *Case history taking(1hr)* *Oral Hygiene demonstration patient education & motivation (2hrs)* *Professional topical fluoride application. (2hrs)*	*Making of C-Clasp, Ad ams Clasps, labial bow. (7hrs)* *Case history taking (1hr)* *Oral Hygiene demonstra tion patient education & motivation (1hr)*	*Library assignment (2hrs)*	*Library utilization (3hrs)*	*70hrs*

	primary & permanent teeth with diagrams *- difference between ECC &rampant caries* *- difference between sucking & suckling* *- primary molar relationship* *- removable space maintainers* *- fixed space maintainers* *- habit breaking appliance.(6hrs)* *2) SS wire straightening, C-Clasp, Adam's Clasps on 16,26,36,46, labial bow on permanent & mixed dentition. (10hrs)* *3) Fabrication of removable space maintainer(6hrs)* *4) Fabrication of removable habit breaking appliance. (3hrs)*						
	25hrs	***21hrs***	***7hrs***	***9hrs***	***2hrs***	***3hrs***	***67hrs***

IV BDS	*Showing all radiographic angulations to staff. (1hr)* *Developing the radiographic films. (1hr)*	*Case history taking on patient-05 (32hrs)* *Oral prophylaxis-10 (16hrs)* *Topical Fluoride application-05 (4hrs)* *Restorations on primary teeth-45 (25hrs)* *Pit & fissure sealants-05 (6hrs)* *Extractions of primary teeth -25 (10hrs)*	*Oral Hygiene demonstration patient education & motivation (1hr)* *Pit & fissure sealant application. (8hrs)* *Rubber dam application (3hrs)* *Taking radiograph in children(1hr)* *Exodontias procedure in pedodontics (2hrs)*	*Oral Hygiene demonstration patient education & motivation (2hrs)* *Discussion on Pit & fissure sealant application. (3hrs)* *Isolation techniques & Rubber dam application discussion (3hrs)* *Discussion on behavior management (2hrs)* *Local anasethesia & its technique (4hrs)*	*Seminar write up submission (2hrs)* *Library assignment (2hrs)*	*School dental health talk & demonstration of oral hygiene measures in school-02 (5hrs)*	*130 hrs*
	2hrs	***93hrs***	***15hrs***	***14hrs***	***4hrs***	***5hrs***	***133 hrs***

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DEPARTMENT OF CONSERVATIVE DENTISTRY & ENDODONTICS

TEACHING –LEARNING STRATEGIES

Didactic (1/3rd)

Strategy	Total hours allotted	Year wise distribution			Teaching media
		II BDS	III BDS	IVBDS	
Lectures	113hrs + 36 hrs remedial classes Total= 149 hrs	48 hrs (24 pcc+24 dm)	19 hrs	46hrs	Lcd Blackboard & chalk Powerpoint presentation Online zoom classes

NON-DIDACTIC (2/3RD)

Strategy	Total hours allotted	Year wise distribution			Teaching media
		II BDS	IIIBDS	IVBDS	
Hours Allotted	632 hrs	432	70hrs	130hrs	
Pre-clinical teaching		432			Using phantom head as simulators
Practical/clinical teaching	141		46	95	Model,chairside teaching, on patients
Demonstration teaching	22		7	15	Videos, on patients/on model demonstrations
Tutorials	23		9	14	-
Seminars	-		-	-	Lcd,blackboard
Problem based learning	7		3	4	Case scenarios
Integrated teaching	2		-	2	Lcd, demonstration on models, charts.
Any others	-		-	-	-
Total	195		65	130	

COURSE CONTENT

DIDACTIC

Total hours alloted	Year	Topics	Must know	Desirable to know	Nice to know
19 hrs	III BDS	Case history, case selection, diagnosis.	History taking, diagnosis	Criteria for selection of cases	
		Dental Caries and its Management(pulp capping)	Dental caries, IPC, DPC	Materials used in pulp capping	
		Pain Control in Operative Dentistry.	Different methods of pain control		
		Disease of Pulp and its management.	Classification, diseases in detail & its management		
		Disease of Periradicular Tissue and its management.	Classification, diseases in detail & its management		
		Isolation and infection control.	Rubber dam, sterilization protocol		
		Clinical diagnostics aids in Endodontics	Different diagnostic aids including recent advances		
		Dental Hypersensitivity and its management.	Definition, etiology & management. Theories		
		Contact and Contours (Tooth Separation/Matrices/Wedging)	Physiological Contact and Contours, classification of matrices & wedging		
		Non Carious cervical Lesions.	Definition, etiology, treatment of attrition, abrasion, erosion & abfraction		
		Instruments in operative dentistry (hand cutting and rotary cutting)	History, classification, use of specific instruments.		
		Management of deep caries lesion.	IPC & DPC	Calcium hydroxide & MTA	Recent advances
		Cast metal restoration including bevel.	Inlay & onlay	Bevels & flares	Modifications
46hrs	IV BDS	Complex amalgam restoration.	Pin retained amalgam	Pin-placement	
		Rationale of Endodontic Treatment.	Fish zones		
		Direct gold restoration.	Gold foils, cavity design		
		Diagnosis in Endodontics.	Different diagnostic aids	Recent advances	
		Class II inlay & onlay.	Cavity design	Materials, bevels & flares	
		Case Selection and Treatment Planning.	Patient systemic status		
		Addition conservative esthetic procedures.	Laminates & veneers	materials	
		Principles of Endodontic Treatment.	Rubber dam	Placement techniques	
		Anatomy of Pulp Cavity and Root Canal.	Anatomy in detail	anamolies	

		Concepts of enamel & dentin adhesion	Dentin bonding agents	Recent advances	
		Endodontic Instrument(Hand & Rotary Including Recent Advanced)	Classification,design, usage	Recent advances	
		Gingival tissue management.	Different methods of management		
		Access Preparation & its Principles for various Teeth.	Laws & access for individual tooth	Tooth anatomy	
		Working Length Determination	Different methods	Apex locators	
		BMP & Recent Advances	Different techniques	Recent advances	
		Irrigation & Medications.	Different solution in detail	Mode of action	Placement technique
		Obturating Material Including Sealers.	Materials in detail	Recent advances	
		Obturation Techniques.	Different techniques	Recent advances	
		Vital Pulp Therapy Including Apexification & Revascularization.	IPC, DPC, apexogenesis, apexfication, revascularization	Materials used	
		Bleaching of Discolored Tooth.	Different techniques of bleaching		
		Traumatic Injuries to Teeth	Classification & management	Storage media for avulsed tooth	
		Endodontics Surgery.	Flap design & instruments	Micro-endo surgery	
		Endo-Perio Interrelationship	Types & treatment		
		Procedural Errors in Endodontics.	Types & manegement	Retrieval system	
		Post Endo Restorations.	Post & core, techniques	Advances in post system	
		Lasers.	Types & application	Uses in endodontics	

Total hours alloted	Year	Topics	Must know	Desirable to know	Nice to know
	II BDS	Biological considerations of dental materials	Biocompatibility		
		Disinfection of dental materials	Sterilization	Other means of disinfection	
		Dental amalgam	Amalgam	Gallium alloy	
		Mercury toxicity and mercury hygiene	Toxicity & its management		
		Restorative resin	Composites, acid etching & bonding	Advances in composites	
		Direct filling gold	DFG	Techniques	
		Dental cements	All the cements		
		Tooth numbering systems	Different system		
		Principles of class 1,2,3,4,5,6 cavity preparation for amalgam	Fundamentals (Gv BLACK)		
		Hand & rotary instruments	Classification & usage	Sharpening and its principle	

		Principles of cavity preparation for inlay/onlay	Fundamentals, bevels & flares		
		Matricing and wedging	Types, uses, techniques	advances	

Non-didactic

Stratergy							
Year	Practical	Clinical	Demonstration	Tutorial	Seminar	Intregrated teaching	Hours allotted
			TOPICS				
III BDS	1) Journal write up on topics -prescription writing & its abbreviations -calculation of drug dosage - guidelines on appropriate use of analgesic & antibiotics - difference between primary & permanent teeth with diagrams - difference in cavity preparation of amalgam & cast restoration with diagrams	Case history Cavity preparation, pulp protection & amalgam/GIC restoration	Case history Cavity preparation, pulp protection & amalgam/GIC restoration	Preparation of cavity for inlay Casting procedures		Library utilization	
IV BDS	radiographic interpretation	Case history Cavity preparation, pulp protection & amalgam/GIC restoration	Case history Cavity preparation, pulp protection & amalgam/GIC restoration apex locator rubber dam pulp vitality test composites	Endo-microscope RVG Obtura Bleaching Post & core			

HEAD OF DEPARTMENT
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DEPT OF CONSERVATIVE DENTISTRY & ENDODONTICS

DEPARTMENT OF PERIODONTOLOGY

AND IMPLANTOLOGY

TEACHING –LEARNING STRATEGIES

DIDACTIC (1/3RD)

STRATEGY	TOTAL HOURS ALOTTED	YEARWISE DISTRIBUTION		TEACHING MEDIA
		III BDS	IVBDS	
LECTURES	80hrs+ 4 hrsREMEDIAL CLASSES Total= 84hrs	30hrs	50 hrs	LCD BLACKBOARD &CHALK POWERPOINT PRESENTATION ONLINE ZOOM CLASSES

NON-DIDACTIC (2/3RD)

STRATEGY	TOTAL HOURS ALOTTED	YEARWISE DISTRIBUTION		TEACHING MEDIA
		IIIBDS	IVBDS	
HOURS ALOTTED	170 hrs	70hrs	100hrs	
PRACTICAL/CLINICAL TEACHING	100	40	60	MODEL,CHAIRSIDETEACHING,ON PATIENTS, DISCUSSIONS, VIVA VOICE
DEMONSTRATION TEACHING	25	10	15	VIDEOS,ON PATIENTS/ON MODEL DEMONSTRATIONS
TUTORIALS	30	15	15	LIBRARY RESOURCES
SEMINARS	-	-	-	LCD,BLACKBOARD
PROBLEM BASED LEARNING	10	5	5	CASE SCENARIOS, CASE HISTORY DISCUSSION ON DIAGNOSIS
INTEGRATED TEACHING	5	-	5	LCD, DEMONSTRATION ON MODELS, CHARTS.
ANY OTHERS	-	-	-	-
TOTAL	170	70	100	

COURSE CONTENT

DIDACTIC

TOTAL HOURS ALLOTED	YEAR	TOPICS	MUST KNOW	DESIRABLE TO KNOW	NICE TO KNOW
30 hrs	III BDS	Gingiva-I 1 hr	• **Clinical Features of gingiva** • **Marginal Gingiva** • **Gingival Sulcus** • **Attached Gingiva** • **Interdental Gingiva**		
		Gingiva –II 1hr	• Microscopic Features • Gingival Epithelium • Gingival Connective Tissue • Correlation of Clinical and Microscopic Features • Color • Size • Contour • Shape • Consistency • Surface Texture Position		
		Clinical Features of Gingivitis 1 hr	• Course and Duration, • Description, • Clinical Findings, • Gingival Bleeding on Probing, • Gingival Bleeding Caused by Local Factors, • Gingival Bleeding Associated with Systemic • Changes, • Color Changes in the Gingiva, • Color Changes Associated with Systemic • Factors, • Changes in Gingival Contour, • Changes in Consistency of the Gingiva, • Changes in Surface Texture of the Gingiva,		

			• *Changes in Position of the Gingiva,* *Changes in Gingival Contour.*		
		Alveolar Bone *1 hr*	• *To cover what is alveolar bone,* • *types of alveolar bone, macroscopic and microscopic features of alveolar bone,* • *cells of alveolar bone, functions, anomalies and clinical significance*		
		Cementum *1 hr*	• *To cover what is cementum,* • *Types of cementum, macroscopic and microscopic features of cementum,* • *Cells of cementum, functions,* *Anomalies and clinical significance*		
		Aging &Periodontium *1 hr*		• *Effects of Aging on the Periodontium, Effects of Aging on the Progression of Periodontal Diseases,* • *Aging and the Response to Treatment of the Periodontium,*	
		Classification of Periodontal Diseases *1 hr*		• *Classification systems, drawbacks, paradigms.*	

		Microbiology of Periodontal Disease 1 hr	• *Structure of a Mature Dental Plaque Biofilm* • *Accumulation of a Dental Plaque Biofilm* • *Factors Affecting Supragingival Dental Plaque Formation* • *De Novo SubgingivalPlaque Formation* • *Metabolism of Dental Plaque Bacteria Communication Between Biofilm Bacteria* • *Interactions between Dental Plaque Bacteria* • *Biofilms and Antimicrobial Resistance* • *Plaque Hypothesis* • *Criteria for Identification of Periodontopathogens* *Virulence Factors of Periodontopathogens*		
		Periodontal Ligament 1 hr.	• *Definition* • *Macroscopic and microscopic features* • *Types of PDl fibers* • *Cellular and fiber composition* • *Functions of Pdl* • *Theories of shock absorption of periodontal ligament*		
		Immunity & Inflammation 1 hr		• *Cells of immunity and inflammation* • *Complement* • *Transendothelial migration* • *Leukocyte functions* • *Specific Immune responses* • *t-cell responses*	
		Genetic factors associated with periodontal			*-Overview of genetic study*

		disease *1 hr*			*designs -Early onset periodontal diseases - Periodontitis in adults -Clinical implications of genetic studies future of genetic studies in periodontology*
		Microbial interaction with host in periodontal disease *1 hr*		• *Microbiologic aspects of the microbial-host interaction* • *Immunologic aspects of the microbial interaction with the host* • *Microbiology and immunology in gingival health* • *Microbiology and immunology in Periodontal diseases*	
		Role of Dental Calculus & other Predisposing factors *1 hr*	• *Calculus* • *Types of calculus* • *Theories of calculus formation* *Other predisposing factors*		
		Host Modulation –I *1 hr*		• *Introduction* • *Systemically Administered*	

				Agents, • *Locally Administered Agents,* • *Nonsteroidal Antiinflammatory Drugs, Host Modulation and*	
		Host Modulation –II *1hr*		• *Comprehensive Periodontal Management, Mechanisms of Action* • *Suggested Uses and Other Considerations* • *Emerging Host Modulatory Therapies* • *Host Modulation Factors in Systemic Disorders*	
		Influence of Systemic disease on Periodontium *1 hr*	• *Endocrine Disorders* • *Hematologic Disorders and Immune Deficiencies* • *Antibody Deficiency Disorders* • *Genetic Disorders* • *Medications* • *Other Systemic Conditions*		
		Stress &periodontium		• *Stress and Psychosomatic Disorders*	

		1hr		• *Psychosocial Stress, Depression, and Coping Stress-Induced Immunosuppression* • *Influence of Stress on Periodontal Therapy Outcomes*	
		Periodontal Medicine –I 1 hr	• *Pathobiology of Periodontitis, Focal Infection Theory Revisited* • *Evidence-Based Clinical Practice* • *Subgingival Environment as Reservoir of Bacteria* • *Periodontal Disease and Mortality* • *Periodontal Disease and Coronary Heart Disease/ Atherosclerosis*	•	
		Periodontal Medicine –II 1 hr	• *Effect of Periodontal Infection,* • *Role of Periodontal Disease in Myocardial or Cerebral Infarction,* • *Periodontal Disease and Stroke* • *Periodontal Infection Associated with Stroke Periodontal Disease and Diabetes Mellitus* • *Periodontal Infection Associated with Glycemic Control in Diabetes* • *Periodontal Disease and Pregnancy*	•	

			Outcome • *Disease and Chronic Obstructive Pulmonary Disease* • *Periodontal Disease and Acute Respiratory Infections, Periodontal Medicine in Clinical Practice* • *Periodontal Disease and Systemic Health* • *Patient Education*		
		Oral Malodor 1 hr	• *Semantics* • *Epidemiology* • *Classification* • *Etiology* • *Physiology of Malodor Detection* • *Diagnosis of Malodor* • *Medical History* • *Treatment of Oral Malodor*		
		Defence Mechanism of Gingiva 1hr	• *Sulcular Fluid* *Saliva*		
		Gingival Inflammation 1 hr		• *Stage I Gingivitis: The Initial Lesion* • *Stage II Gingivitis: The Early Lesion* • *Stage III Gingivitis: The Established Lesion* • *Stage IV Gingivitis: The Advanced Lesion*	
		Smoking & Periodontal disease		• *The Smoking Epidemic* • *Effects of Smoking*	

				on the Prevalence and Severity of Periodontal Diseases • *Effects of Smoking on the Etiology and Pathogenesis of Periodontal Disease* • *Effects of Smoking on Response to Periodontal Therapy* • *Effects of Smoking Cessation on Periodontal Treatment Outcomes*	
		Gingival enlargement –I 1 hr	• *Inflammatory Enlargement, Drug-Induced Gingival Enlargement,* • *Idiopathic Gingival Enlargement* *Enlargements Associated with Systemic Diseases*		
		Gingival enlargement –II 1hr	• *Conditioned Enlargements, Systemic Diseases That Cause Gingival Enlargement* *Neoplastic Enlargement False Enlargement*		
		Acute Gingival Infections	• *Necrotizing Ulcerative Gingivitis*		

		1hr	• *Primary Herpetic Gingivostomatitis Pericoronitis*		
		Gingival diseases in Childhood 1hr			*- Periodontium of the Primary Dentition -Gingival Diseases of Childhood - Periodontal Diseases of Childhood -Gingival Manifestation of Systemic Disease in Childre n Oral Mucosa in Childhood Diseases - Therapeutic Considerations in the Pediatric Patients*
		Desquamative gingivitis 1hr			*-Chronic Desquamative Gingivitis - Diagnosis of Desquamative Gingivitis -Diseases Clinically Presenting*

					as Desquamative Gingivitis, Drug Eruptions - Miscellaneous Conditions Mimicking Desquamative Gingivitis
		Mechanical Plaque control 1 hr	• *The Toothbrush,* • *Powered Toothbrushes* • *Dentifrices* • *Interdental Cleaning Aids* • *Dental Floss* • *Interdental Cleaning Devices, Gingival Massage* • *Oral Irrigation*		
		Chemical Plaque control 1hr	• *Prescription Chlorhexidine Rinse* • *Nonprescription Essential Oil Rinse* • *Other Products* • *Disclosing Agents* • *Frequency of Plaque Removal Patient Motivation and Education*	•	•
50 hrs	*IV BDS*				
		The periodontal pocket 1 hr	• *Clinical features,* • *Mechanisms of tissue destruction microtopography of gingival wall, periodontal pockets as healing lesions,* • *Pocket contents,* • *Root surface walls, periodontal disease activity,* • *Pulp changes associated with periodontal pockets,* • *Relationship of attachment loss and bone*		

			loss to pocket depth, • Area between base of pocket and alveolar bone, Relationship of pocket to bone		
		Ginigival enlargement 2 hr	• Inflammatory enlargement, • Chronic inflammatory enlargement, • Acute inflammatory enlargement, • Drug-induced gingival enlargement, • General information, anticonvulsants, immunosuppressants, calcium channel blockers, • Idiopathic gingival enlargement, enlargements associated with systemic diseases, conditioned enlargements, • Systemic • Diseases that cause gingival enlargement, neoplastic enlargement (gingival tumors), benign tumors of the gingiva, • Malignant tumors of the gingiva, • False enlargement, underlying osseous lesions, Underlying dental tissues,		
		Desquamative gingivitis 1hr			*-Chronic desquamative gingivitis, - Diagnosis of desquamative gingivitis: a systematic approach, diseases clinically*

					presenting as desquamative gingivitis, lichen planus, pemphigoid , - Pemphigus vulgaris, chronic ulcerative stomatitis, • *Linear immunoglobulin a disease (linear immunoglobulin a dermatosis),* • *Dermatitis herpetiformis, Lupus erythematosus, erythema multiforme, drug eruptions, miscellaneous conditions mimicking desquamative gingivitis*
		Bone loss & patterns of bone	• *Bone destruction caused by extension of gingival*		

		destruction 2hr	*inflammation, radius of action,* • *Rate of bone loss, periods of destruction, mechanisms of bone destruction,* • *Bone formation in periodontal disease,* • *Bone destruction caused by trauma from occlusion,* • *Bone destruction caused by systemic disorders,* • *Factors determining bone morphology in periodontal disease, normal variation in alveolar bone, exostoses,* • *Trauma from occlusion, buttressing bone formation,* • *Food impaction, aggressive periodontitis, bone destruction patterns in periodontal disease,* • *Horizontal bone loss, bone deformities (osseous defects), vertical or angular defects, osseous craters,* • *Bulbous bone contours, reversed architecture, ledges,* *Furcation involvement,*		
		Periodontal response to external forces 2 hr		• *Adaptive capacity of the periodontium to occlusal forces,* • *Trauma from occlusion, acute and chronic trauma,* • *Primary and secondary trauma from occlusion,*	

				stages of tissue response to increased occlusal forces, • *Stage i: injury,* • *Stage ii: repair,* • *Stage iii: adaptive remodeling of the periodontium,* • *Effects of insufficient occlusal force, reversibility of traumatic lesions, effects of excessive occlusal forces on dental pulp,* • *Influence of trauma from occlusion on progression of marginal periodontitis,* • *Clinical and radiographic signs of trauma from occlusion alone,* *Pathologic tooth migration, pathogenesis*	
		Chronic periodontits 1hr	• *Adaptive capacity of the periodontium to occlusal forces,* • *Trauma* • *From occlusion,* • *Acute and chronic trauma,* • *Primary and secondary*		

			trauma from occlusion, stages of tissue response to increased occlusal forces • *Stage i: injury,* • *Stage ii: repair,* • *Stage iii: adaptive remodeling of the periodontium,* • *Effects of insufficient occlusal force, reversibility of traumatic lesions, effects of excessive occlusal forces on dental pulp,* • *Influence of trauma from occlusion on progression of marginal periodontitis,* • *Clinical and radiographic signs of trauma from occlusion alone,* *Pathologic tooth migration, pathogenesis,*		
		Acute gingival infections &nup	• *Necrotizing ulcerative gingivitis,* • *Clinical features, relation of bacteria to the necrotizing ulcerative gingivitis lesion,* • *Diagnosis,* • *Etiology,* • *Epidemiology and prevalence, communicabi lity, primary herpetic gingivostomatitis, clinical features, diagnosis,* • *Differential diagnosis, communicability,* • *pericoronitis,* *Clinical features, complications,*		
		Aggressive periodontits 2hrs	• *Localized aggressive periodontitis,* • *Historical background, clinical characteristics, radiographic findings, prevalence and distribution by age and gender,*		

		• *Generalized aggressive periodontitis,* • *Clinical characteristics, radiographic findings, prevalence and distribution by age and gender,* • *Risk factors for aggressive periodontitis, microbiologic factors, immunologic factors, genetic factors, environmenta l factors,*		
	Radiographic aids in the diagnosis of periodontal Diseases *1 hr*		• *Normal interdental bone,* • *Radiographic techniques,* • *Bone destruction in periodontal disease, bone loss,* • *Pattern of bone destruction, r adiographic appearance of periodontal disease, periodontitis, interdental craters, furca tion involvement, periodontal abscess, clinical probing, loca lized aggressive periodontitis,* • *Trauma from occlusion, additional radiographic criteria*	

			(online only), • *Skeletal disturbances manifested in the jaws (online only),* • *Digital intraoral radiography,* *Advanced imaging modalities*	
	Advanced diagnostic techniques 1 hr	• *Clinical advances* • *Radiographic advancement* *Microbiological advancements*		
	Risk assessment 1 hr.	• .		• *Definitions,* • *Risk factors for periodontal disease, tobacco smoking, diabetes,* • *Pathogenic bacteria and microbial tooth deposits,* • *Risk determinants/ background characteristics for*

					period ontal diseas e, geneti c factors , • *Age,* • *Gende r,* • *Socioe conom ic status, stress,* • *Risk indicat ors for period ontal diseas e (onlin e only),* • *Huma n immun odefici ency virus/a cquire d immun odefici ency syndro me (onlin e only), osteop orosis (onlin e only),* • *Infreq uent*

			dental visits (online only). • *Risk markers/predictors for periodontal disease (online only).* • *Previous history of periodontal disease (online only).* • *Bleeding on probing (online only).* *Clinical risk assessment for periodontal disease (online only). conclusion*
Determination of prognosis 1hr	• *Definitions,* • *Types of prognosis, overall versus individual tooth prognosis, factors in*		

			determination of prognosis, • *Overall clinical factors, systemic and environmental factors, local factors, prosthetic and restorative factors, relationship between diagnosis and prognosis, prognosis for patients with gingival disease, prognosis for patients with periodontitis, reevaluation of prognosis after phase i therapy,*		
		The treatment plan *1 hr*	• *Master plan for total treatment,* • *Extracting or preserving a tooth,* • *Sequence of therapeutic procedures, explaining treatment plan to the patient,*		
		Rationale for periodontal treatment *1 hr*	• *Master plan for total treatment,* • *Extracting or preserving a tooth,* • *Sequence of therapeutic procedures, explaining treatment plan to the patient,*		
		Rationale for periodontal treatment *1 hr*	•		• *Local therapy,* • *Systemic therapy, factors that affect healing.* • *Local*

			factors, • *Systemic factors,* • *Healing after periodontal therapy, regeneration,* • *Repair,* *New attachment, periodontal reconstruction,*
Periodontal therapy in medically compromised patients *1hr*	• *Cardiovascular diseases, hypertension,* • *Ischemic heart diseases (online only), congestive heart failure (online only),* • *Cardiac pacemakers and implantable cardioverter-defibrillators (online only),* • *Infective endocarditis, cerebrovascular accident (online only), endocrine disorders, diabetes,* • *Thyroid and parathyroid disorders (online only), adrenal insufficiency (online only), hemorrhagic disorders, coagulation disorders, thrombocytopenic purpuras, nonthromb*		

	ocytopenicpurpuras, • *Blood dyscrasias, leukemia, agramulocytosis,* • *Renal diseases (online only),* • *Liver diseases (online only),* • *Pulmonary diseases (online only), medications and cancer therapies, bisphosphonates, anticoagulant/antiplatelet therapy, corticosteroids, immunosuppression and chemotherapy, radiation therapy, prosthetic joint replacement, pregnancy (online only), infectious diseases (online only),* • *Hepatitis (online only), hiv and aids (online only),* • *Tuberculosis (online only),*		
Periodontal therapy in female patient 1hr	•		*-Puberty, - Management, -Menses, - Periodontal manifestations, management, pregnancy, - Periodontal manifestations, -Role of*

			pregnancy hormones, -Maternal immunoresponse, - other oral manifestations of pregnancy, -Clinical management, - Treatment, -Oral contraceptives, management, menopause (online only), -Oral changes (online only), -Clinical management (online only), conclusion
Treatment of aggressive and atypical form of periodontitis 1 hr	•	• *Treatment planning and restorative considerations,* • *Periodontal maintenance, periodontitis refractory to treatment (online*	

		only). • Necrotizing ulcerative periodontitis, conclusion,	
Treatment of acute gingival diseases 1hr	•	-Acute necrotizing ulcerative gingivitis, first visit, -Second visit, -Third visit, -Gingival changes with healing, -Additional treatment considerations, persistent or recurrent cases, -Acute pericoronitis, acute herpetic gingivostomatitis,	
Treatment of periodontal abscess 1hr	•	• Classification of abscesses, • Periodontal abscess, gingival abscess, pericoronal abscess, acute versus chronic abscess, • Periodontal versus pulpal abscess, • Acute abscess, • Chronic abscess, • Gingival abscess,	

		• *Pericoronal abscess,*	
Phase 1 periodontal therapy 1 hr	• *Rationale* • *Treatment sessions* • *Sequence of procedures* • *Results* • *Healing* • *Decision to refer for specialist treatment*		
Plaque control for the periodontal patient 1 hr	• *The toothbrush* • *Powered toothbrushes* • *Dentifrices* • *Interdental* • *Cleaning aids* • *Dental floss* • *Interdental cleaning devices* • *Gingival massage* • *Oral irrigation*		
Chemotherapeautic agents 1hr	• *Prescription chlorhexidine rinse* • *Non prescription essential oil rinse* • *Other products* • *Disclosing agents* • *Frequency of plaque* • *Removal* • *Patient motivation and education*		
Adjunctive role of orthodontic therapy 1 hr.	•		• *Benefits of orthodontic therapy* • *Pre orthodontic osseous surgery* • *Orthodontic treatment of osseous*

			• *defects advanced horizontal bone loss* • *Orthodontic treatment of gingival discrepancies*
The periodontic – endodontic continuum 1hr	•	• *Biologic effects of pulpal infection on periodontal tissues* • *Biologic effects of periodontal infection on dental pulp* • *Differential diagnosis of pulpal and periodontal infection* • *Treatment considerations of endodontic-periodontic lesion*	
Phase II periodontal therapy 1 hr	•	• *Objectives of the surgical phase* • *Surgical pocket therapy* • *Results of pocket therapy,* • *Maintenance,* • *Reevaluation*	

		• *After phase i therapy* • *Critical zones in pocket surgery, indications for periodontal surgery* • *Methods of pocket therapy*	
General principles of periodontal surgey *1 hr*	•		• *Outpatient surgery* • *Hospital periodontal surgery* • *Surgical instruments*
Gingival surgical techniques *1hr*	• *Gingival curettage* • *Gingivectomy*		
Treatment of gingival enlargement *1 hr*	• *Chronic inflammatory enlargement* • *Periodontal and gingival abscesses* • *Drug-associated gingival enlargement* • *Leukemic gingival enlargement* • *Gingival enlargement in pregnancy* • *Gingival enlargement in puberty* • *Recurrence of gingival enlargement*		
The periodontal flap *1 hr*	• *Classification of flaps* • *Design* • *Incisions* • *Elevation of the flap* • *Suturing techniques* • *Types of sutures*		

	• *Healing after flap surgery*		
The flap technique for pocket therapy 1hr	• *Overview* • *Technique for access and pocket depth reduction/elimination incisions* • *Reconstructive techniques* • *Flaps for reconstructive surgery* • *Distal molar surgery*		
Resective osseous surgery 1 hr	•		• *Selection of treatment technique* • *Rationale* • *Factors in selection of resective osseous surgery* • *Examination and treatment planning* • *Methods of resective osseous surgery* • *Osseous resection technique*

			• *Placement and closure* • *Postoperative maintenance* • *Specific osseous reshaping situations*
Reconstructive periodontal surgery *2 hrs*	• *Evaluation of new attachment and periodontal reconstruction* • *Reconstructive surgical techniques*		
Furcation involvement & treatment *2hr*	• *Evaluation of new attachment and periodontal reconstruction* • *Reconstructive surgical techniques* • *Etiologic factors* • *Diagnosis and classification of furcation defects* • *Local anatomic factors* • *Anatomy of the bony lesion* • *Indices of furcation involvement* • *Treatment* • *Nonsurgical therapy* • *Surgical therapy*		
Periodontal plastic & esthetic surgery *1hr*	• *Terminology* • *Objectives* • *Etiology of marginal tissue recessio* • *Factors that affect surgical outcome* • *Techniques to increase*		

	attached gingiva • Techniques to deepen the vestibule • Techniques to remove the frenum • Techniques to improve esthetics • Tissue engineering • Criteria for selection of techniques • Surgical techniques • Tissue engineering alternatives for muco gingival procedures		
Recent advances in surgical 2hr	•	• Microsurgery • Magnification systems • Periodontal microsurgery, • Microsurgical instruments • Ergonomics Lasers in periodontics	
Periodontal restorative interrelationships 1hr	•	• Biologic considerations • Esthetic tissue management • Occlusal considerations in restorative therapy Special restorative considerations	
Periodontal splints 1 hr	• Types of splints • Clinical implications		

Supportive periodontal treatment 1hr	• *Rationale for supportive periodontal treatment* • *Maintenance program* • *Classification of posttreatment patient* • *Referral of patients to the periodontist* • *Tests for disease activity* • *Maintenance for dental implant patients*		
Dental implants 2hrs	•		• *Periim plant anato my, biolog y, and functio n* • *Clinic al evalua tion of the implan t patient* • *Diagn ostic imagin g for the implan t patient* • *Standa rd implan t surgic al proced ures* • *Advan ced implan t surgic al proced*

					ures • *Techn ologic advan ces in implan t surger y* • *Impla nt-relate d compli cation s and failure s*

NON-DIDACTIC

STRATERGY							
YEAR	PRACTICAL	CLINICAL	DEMONSTRATION	TUTORIAL	SEMINAR	INTREGRATED TEACHING	HOURS ALLOTED
TOPICS							
III BDS	I)Journal write up on topics –prescription writing & its abbreviations - guidelines on appropriate use of analgesic & antibiotics - case history write up and checking -Chair side Discussion on case history -Thorough viva voce on clinical procedures - Instruments and instrumentation - finger rests and grasps	Case history taking on patient-10(10hrs) Oral prophylaxis-10 (15 hrs)	Case history taking(2hr) Hand scaling demonstration patient education & motivation (2hr)	Case history taking (2hr) Hand scaling demonstrationpatient education & motivation (2hr)		Library utilization / assignment (1hr)	70 hrs

	- oral hygiene instructions to the patient - tooth brushing technique						
	30 hrs	**25 hrs**	**4hrs**	**4hrs**		**1hr**	**60 hrs**

IV BDS	*I) Journal write up on topics* *-prescription writing & its abbreviations* *- guidelines on appropriate use of analgesic & antibiotics* *- case history write up and checking* *-Chair side Discussion on case history* *-Thorough viva voce on clinical procedures* *Instruments and instrumentation* *- finger rests and grasps*	*Case history taking on patient-10(10hrs)* *Oral prophylaxis-10 (15hrs)*	*Case history taking(2hr)* *Hand scaling demonstrationpatient education & motivation (2hr)*	*Case history taking(2hr)* *Hand scaling demonstration patient education & motivation (2hr)*	*Seminar write up submission (1hr)* *Library assignment / MCQ submission (5 hrs)* *During clinical postingz discussion topics given for each day and viva conducted on those topics (7 hrs)*	*Demonstration of tooth brushing techniques (2 hrs)* *Demonstration of splinting (2 hrs)*	*100 hrs*

	- oral hygiene instructions to the patient *- tooth brushing technique*						
	30 hrs	***25 hrs***	***4hrs***	***4hrs***	***13hr***	***4hrs***	***80 hrs***

PROFESSOR & HOD
DEPT. OF PERIODONTICS
CHHATTISGARH DENTAL COLLEGE
& RESEARCH INSTITUTE
RAJNANDGAON (C.G)

DEPARTMENT OF PUBLIC HEALTH DENTISTRY

TEACHING –LEARNING STRATEGIES

DIDACTIC (1/3RD)

STRATEGY	TOTAL HOURS ALOTTED	YEARWISE DISTRIBUTION		TEACHING MEDIA
		III BDS	IVBDS	
LECTURES	62hrs + 6-7 hrs REMEDIAL CLASSES Total= 68-69 hrs	30hrs	32hrs	LCD BLACKBOARD & CHALK POWERPOINT PRESENTATION ONLINE ZOOM CLASSES

NON-DIDACTIC (2/3RD)

STRATEGY	TOTAL HOURS ALOTTED	YEARWISE DISTRIBUTION		TEACHING MEDIA
		IIIBDS	IVBDS	
HOURS ALOTTED	290hrs	90hrs	200hrs	
PRACTICAL/CLINICAL TEACHING	218	70	148	CHARTS,CHAIRSIDE TEACHING,ON PATIENTS, ONE TO ONE DISCUSSION
DEMONSTRATION TEACHING	14	7	7	ON PATIENTS DEMONSTRATIONS, MODLES
TUTORIALS	21	6	15	ONE TO ONE DISCUSSION, USE OF MODLES
SEMINARS	2		2	LCD,BLACKBOARD
PROBLEM BASED LEARNING		4	4	ON THE BASIS OF FIELD VISIT
INTEGRATED TEACHING	25	5	20	LCD, DEMONSTRATION ON MODELS, CHARTS, FIELD VISITS
ANY OTHERS				
TOTAL	280	92	196	

COURSE CONTENT

DIDACTIC

TOTAL HOURS ALLOTED	YEAR	TOPICS	MUST KNOW	DESIRABLE TO KNOW	NICE TO KNOW
30 hrs	III BDS	**Introduction To Dentistry** 3 Hours	Dentist Act Of India IDA DCI	Definition Aims & Objectives Of Dentistry	History Of Dentistry
		Introduction To Public Heath 3 hours	Changing Concepts Of Health Concepts Of Causation Changing Concepts In Public Heath Primary Health Care	Concept Of Prevention	Introduction Definition History
		General Epidemiology 5 Hours	Epidemiology Methods Uses Of Epidemiology Association And Causation	Aims Of Epidemiology Principals Of Epidemiology Tools Of Measurement	Introduction Definition History
		Environment And Health 4 Hours	Purification Of Water Waste Management Disposal Of Solid Waste Disposal Of Health Care Waste	Guidelines For Drinking Water Quality	Introduction Water Uses Of Water Sources Of Water
		Health Education And Health Promotion 3 Hours	Principals Contents Stages In The Adoption Of New Ideas And Practices Educational Aids	Approaches To Achieve Health Models Of Health Education Communication Health Promotion	Introduction Definition Objectives Health Education And Propaganda

			Used In Health Education *Methods In Health Education*		
		Ethics In Medicine And Dentistry Including Medical Jurisprudence *2 Hour*	*Ethical Principal* *Ethical Rules For Dentists* *The Nuremberg Code* *Declaration Of Geneva* *Consent* *Consumer Protection Act* *Do's And Don't's For Health Professionals* *Preventive Measures*	*History* *Declaration Of Helsinki* *Doctor-Patient Contract* *Professional Negligence* *Other Legal Avenues For Aggrieved Patients*	*Introduction* *World Medical Association* *International Code Of Medical Ethics*
		Nutrition And Oral Health *1 Hour*	*Nutrients* *Balanced Diet* *Effect Of Nutrition On Oral Tissues*	*Classification Of Foods* *Nutrition In The Elderly* *Preventive And Social Measures*	*Introduction*
		Behavioural And Social Sciences *2 Hours*	*Theories Of Behaviour Change* *Behaviour Of The Child In The Dental Office*	*Health Behaviour And Life Style* *Life Style And Oral Health* *Social Stratification And Oral Health*	Introduction Social Sciences *Risk Behaviour* *Utilization Of Dental Services*
		Health Care Delivery *2 Hours*	*Levels Of Health Care In India* *Health System Administration India* *The National Oral Health Policy*	*Health Care Sectors In India* *Health Agencies Around The World*	*Introduction* *Evolution Of Health Systems*
		Public Health Dentistry *2 Hours*	*Tools Of Dental Public Health* *The Epidemiologist*	*Characteristics Of Public Health Work* *Private Practice And Public Health*	*Introduction* *Definition* *The Indian Association Of*

			Duties Of A Public Health Dentist *Ideal Public Health Measure* *Public Health Problem* *Procedural Steps In Dental Public Health*	*Dentistry* *Oral Health Goals*	*Public Health Dentistry (IAPHD)*
		Dental Caries *3 Hours*	*Epidemiology* *Theories Of Caries Etiology* *Etiologic Factor* *Prevention*	*Caries Risk Assessment* *Caries Vaccine* *Caries Activity/Susceptibility Test*	*Introduction*
32 Hours	*IVth BDS*	***Periodontal Disease*** *2 Hours*	*Epidemiology* *Etiology* *Prevention*	*Classification*	*Introduction*
		Oral Cancer *2 Hours*	*Epidemiology* *Etiology And Risk Factor* *Potentially Malignant Disorder* *Prevention And Control*	*Squamous Cell Carcinoma* *Tnm System Tumor Staging*	*Introduction* *Global Initiative In The Prevention Of Oral Cancer*
		Malocclusion *1 Hour*	*Epidemiology* *Classification* *Prevention*	*Etiology*	*Introduction*
		Planning And Evaluation *2 Hours*	*Steps In The Planning Process* *Evaluation*	*Uses Of Planning* *Types Of Health Planning*	*Introduction*
		Survey Procedures In Dentistry *4 Hours*	*Types Of Surveys* *Methods Of Data Collection* *Steps In Surveying*	*Uses Of Surveys* *Basic Oral Health Survey*	*Introduction*
		Indices In Dental Epidemiology *3 Hours*	*Indices Used For Assessing Oral Hygiene And Plaque* *Indices Used For Assessing Gingival*	*Ideal Requisites Of An Index* *Criteria For Selecting Oral An Index* *Classification Of*	*Introduction* *Definition* *Tooth Numbering System*

			And Periodontal Disease *Indices Used For Assessing Dental Caries* *Indices Used For Assessing Dental Fluorosis* *Indices Used For Assessing Malocclusion* *Other Indices*	*Indices* *Uses Of An Index*	
		Dental Manpower *2 Hours*	*Dental Auxiliaries* *Frontier Auxiliaries* *New Auxiliaries* *Types* *Degrees Of Supervision Of Auxiliaries*	*Dentist* *Dental Manpower Of India*	*Introduction*
		School Oral Health Programs *2 Hours*	*Objectives* *Ideal Requirements* *Advantages* *Elements/Components* *Some School Oral Health Programs* *Incremental Care* *Comprehensive Care*	*Aspects Of School Health Programs*	*Introduction* *Definition* *WHO's Global School Health Initiative*
		Finance In Dental Care *2 Hours*	*Mechanism Of Payment For Dental Care*	*Financing Dental Health Services In India*	*Introduction*
		Fluorides *2 Hours*	*Mechanism Of Action Of Fluorides* *Fluoride Delivery Methods* *Toxicity Of Fluorides* *Defluoridation Of Water*	*Historical Evolution Of Fluorides*	*Introduction* *Fluoride In The Environment* *Sources Of Fluoride* *Metabolism Of Fluorides* *Estimation Of Fluoride Concentration*

		Pit And Fissure Sealants *1 Hour*	*Types Of Sealants Materials Used As Sealants Indications And Contraindications Procedure Of Sealant Application Factors Affecting Sealant Retention*	*History*	*Introduction Morphology Of Pit And Fissures Cost Effectiveness Preventive Resin Restoration (PRR)*
		Atraumatic Restorative Treatment (ART) *1 Hour*	*Indication Contraindication Advantages Procedure*	*Principal*	*Introduction Failed/Defective Restoration*
		Research Methodology And Biostatistics *3 Hours*	*Categories Of Research Writing The Protocol Sampling And Sample Designs Collection Of Data Presentation Of Data Analysis And Interpretation*	*Scientific Method Problem Formulation Hypothesis Formulation Writing The Report*	*Introduction*
		Occupational Hazards In Dentistry *1 Hour*	*Biological Hazards Chemical Hazards Physical Hazards Psychological Hazards*		*Introduction*
		Establishing And Maintaining A Dental Office *1 Hour*	*The Dental Office Setting Financial Aspects Of A Dental Practice*	*Goal Of Practice Management*	*Introduction*
		Mobile Dental Clinics *1 Hour*	*Decision On The Need For A Mobile Dental Clinic Target Populations For Mobile Dental Service*	*Partnership In Providing Mobile Dental Service*	*Introduction Some Mobile Dental Clinics*

			Goals And Objectives Of Mobile Dental Service Specification Of A Mobile Dental Clinic Advantages And Disadvantages Of Mobile Clinics		
		Cultural Taboos In Dentistry *1 Hour*	*Role Of Culture And Relation On Oral Health Mutilations Of Teeth Mutilation Of Soft Tissues*	*Aculturization*	*Introduction Culture*
		Disaster Management (As Additional Extra Topic) *1 Hour*	*Disaster Management Disaster Cycle Role Of Dentist In Disaster Management*	*Types Of Disaster*	*Introduction*

NON-DIDACTIC

STRATERGY							
YEAR	*PRACTICAL*	*CLINICAL*	*DEMONSTRATION*	*TUTORIAL*	*SEMINAR*	*INTREGRATED TEACHING*	*HOURS ALLOTED*
			TOPICS				
III BDS	***I) Discussion of Case History & Various Indices*** *-Introduction* • *Definition* • *Components* *-Method of recording Case History* *-General Information* *-General Information* *-Chief Complaint* *-Previous Dental History* *- Medical History* *-Personal History* *- Clinical Examination* *- Extaraoral Examination* *-Intra Oral Examination* *-Establishing The Diagnosis* *- Investigation* *-Final Diagnosis* *- Formulating Comprehensive A Treatment Plan (15 Hrs)* *- Levels Of Prevention (4 Hours)*	*Case history taking on patient- 15* *Index Recording* *1) OHI-S Index- 5* *2) DMFT/ DMFS Index- 5* *3) Russel's Periodontal Index - 5* *(36 Hours)*	*Demonstarion of Various indices (2hrs)* *Case history taking (1hr)* *Oral Hygiene demonstration patient education & motivation (1hr)* *Professional topical fluoride application. (2hrs)* *Pit & Fissure Sealants Application (1hr)*	*Case history taking (1hr)* *Index (4 hours)* *Oral Hygiene demonstration patient education & motivation (1hr)*		*Library utilization (1hr)* *Participitation in various Activities & Programs (4 hrs)*	*90 hrs*

	-Dental Indices (15 Hours)						
	34 hrs	**36 hrs**	**7hrs**	**6 hrs**		**5 hrs**	**84 hrs**

IV BDS	*1) Discussion Of Theory Topics of Ist & 2nd Internal Examinations in respective Postings (60 Hrs)*	*1) Case history taking on patient- 15 Index Recording 1) CPI & LOA Index– 5 2) Plaque Index- 3 3) Gingival Index- 3 4) Dean's Fluorosis Index- 2 5) Modified Dean's Fluorosis Index- 2 (54 Hours)* *2) Topical Fluoride application-02 (2hrs)* *3) Pit & fissure sealants-02 (2hrs)* *4) Discussion of Case History (15 hrs)* *5) Discussion Of Various Indices (15 hrs)*	*Demonstarion of Various indices (2hrs)* *Case history taking (1hr)* *Oral Hygiene demonstration patient education & motivation (1hr)* *Professional topical fuoride application. (2hrs)* *Pit & Fissure Sealants Application (1hr)*	*Oral Hygiene demonstration patient education & motivation (1hr)* *Discussion on Pit & fissure sealant application. (1hr)* *Discussion of Professional topical fuoride application. (1hr)* *Discussion on Survey Conduction (2hrs)* *Discussion Of Various Indices (10 hrs)*	*Seminar write up submission (Printed + Soft Copy CD) which will be added in Departmental Library (2 hrs)*	*Visit to Water Purification Plant (4 hrs)* *Community Oral Health Programs Screening/ treatment Camp (4 hrs)* *School Oral Health Program Screening/ treatment Camp (4 hrs)* *Oral Health Program for Special Health Care Needs Screening/ Treatment camps (4 hrs)* *Participation In Social Activities Celebratio*	*200 hrs*

						n Of important days etc. (6 Hrs) *Submissio n Of Reports 4 (hrs)*	
	60 hrs	***88 hrs***	***7hrs***	***15hrs***	***2hrs***	***20 hrs***	***192 hrs***

Dr. [illegible]
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Dept. of Public Health Dentistry
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DEPARTMENT OF ORTHODONTICS AND DENTOFACIAL ORTHOPEDICS

TEACHING –LEARNING STRATEGIES

DIDACTIC (1/3RD)

STRATEGY	TOTAL HOURS ALOTTED	YEARWISE DISTRIBUTION		TEACHING MEDIA
		III BDS	IVBDS	
LECTURES	50 + 4 hrs REMEDIAL CLASSES Total= 69 hrs	20hrs	30+4 hrs	LCD BLACKBOARD & CHALK POWERPOINT PRESENTATION ONLINE ZOOM CLASSES

NON-DIDACTIC (2/3RD)

STRATEGY	TOTAL HOURS ALOTTED	YEARWISE DISTRIBUTION		TEACHING MEDIA
		IIIBDS	IVBDS	
HOURS ALOTTED	200hrs	70hrs	130hrs	
PRACTICAL/CLINICAL TEACHING	130	55	85	MODEL,CHAIRSIDE TEACHING,ON PATIENTS,RADIOGRAPHS
DEMONSTRATION TEACHING	25	10	15	VIDEOS,ON PATIENTS/ON MODEL DEMONSTRATIONS
TUTORIALS	24	10	14	-
SEMINARS/ASSIGNMENT	2	0	2	LCD,BLACKBOARD,PAPER
INTEGRATED TEACHING/PROBLEM BASED LEARNING	4	0	14	CHAIR SIDE TEACHING
TOTAL	185	75	130	

COURSE CONTENT

DIDACTIC

TOTAL HOURS ALLOTED	TOPICS	MUST KNOW	DESIRABLE TO KNOW	NICE TO KNOW
20 hrs	Introduction of orthodontics	Definition, Historical Background, Aims and Objectives of orthodontic and Need for Orthodontic care.	Branches & Introduction to various appliances	
	Malocclusion & Normal Occlusion	Concept of normal occlusion Factors affecting normal occlusion Six keys of normal occlusion Definition of malocclusion	Description of different types of dental, skeletal and functional malocclusion. centric relation & centric occlusion	
	Classification of malocclusion	Principle, description, advantages and disadvantages of classification of malocclusion by Angle Simon, Lischer and Ackerman and Proffit classification. Deweys modification & other modification		
	Etiology of Malocclusion	Definition, Importance, classification of local and general etiological factors General etiological factors Local etiological factors Habits – Classification & dental features a. Tongue thrusting habit and its correction b. Thumb sucking & its correction		

	Removable orthodontics appliances	*Classification of removable appliances* *general principle of removable appliances* *Components of Removable appliances* *Different types of clasps and their uses* *Different types of labial bows and their uses* *Different types of springs and their uses*		
	Preventive orthodontics	*Definition, Different procedures undertaken in preventive orthodontics and their limitations, Space maintainers.*		
	Interceptive Orthodontics,	*Definition*	*Different procedures undertaken in intercepting orthodontics, Habit breaking appliances* *Serial extractions: Definition, indications, contra-indications, technique, advantage and disadvantage* *Role of muscle exercise as in interceptive procedure.*	
	Corrective Orthodontics	*Definition, Factors to be considered during treatment planning* *Model analysis: Pont's, Ashley Howe's, Carey's, Moyer's, Mixed dentition analysis*	*Methods of gaining space in arch:- indications, Relative merits and demerits of proximal stripping* *Expansion appliances in orthodontics: Principles, Indications for arch expansion,*	

			Description of expansion appliance and their uses. *Rapid maxillary expansion* *Extractions in orthodontics- indications and selection of teeth for extraction.*	
	General Principles in Orthodontic Treatment Planning of Dental and Skeletal Malocclusion	*treatment planning - introduction*	*principle of treatment planning timing of treatment*	
	Growth and Development	*Definition* *Growth spurts and differential growth* *Factors influencing growth and development* *Methods of measuring growth* *Growth theories (Genetic, Sicher, Scott, Moss, Petrovic, Multifactorial)* *Genetic and epigenetic factors in growth* *Cephalocaudal gradient in growth* *Clinical application of study of Growth and Development*	*Morphologic Development of Craniofacial structures* *Methods of bone growth* *Prenatal growth of craniofacial structures* *Postnatal growth and development of : cranial base, maxilla, dental arches and occlusionh*	

	Functional Development of Dental Arches And Occlusion	*Factors influencing functional development of dental arches and occlusion.* *Forces of occlusion* *Wolf's law of transformation of bone &* *Trajectories of forces*		
	Diagnosis and Diagnostic Aids	*Definition and classification of diagnostic aids* *Importance of case history and clinical examination in orthodontics* *Study Models: -* *Importance and uses-* *Preparation and preservation of study models* *Importance of intraoral X-rays in orthodontics* *Panoramic radiographs:-* *Advantages, disadvantages and uses* *Cephalometrics,* *Advantages,* *disadvantages, Definition* *Description and use of cephalostat.*	*Description of anatomical Landmarks lines and angles used in cephalometric analysis* *Analysis- Steiner's, Down's, Tweed's, Ricket's E-line WITS appraisal* *Electromyography and its uses in orthodontics* *Wrist X-rays and its importance in orthodontics*	
	EXTRAORAL APLLIANCES		*Headgears,chin cup* *Reverse pull headgears*	
	MYO-FUNCTIONAL APPLIANCES	*Definition and principles* *Muscle exercises and their use in orthodontics*		*Functional appliances* *Activator, oral screen, Frankel Function Regulator, Bionator, Twin block, Lip Bumper* *Inclined planes-*

				upper and lower
	FIXED ORTHODONTIC APPLIANCES		*Definition, Indications, Contraindications, Classification* *Component parts and their uses* *Basic principles of different techniques: Edgewise, Begg's, Straight wire.*	
45hrs	*Differential Diagnosis & methods of treatment of:*		*Midline Diastema, Cross bite, Open bite, Deep bite, Spacing, Crowding, Class II- Division 1, Division 2, Class III Malocclusion- True and Psuedo Class III*	
	Orthodontic Management of Cleft Lip and Palate			*introduction, incidence, classification etiology – genetic, environment Management*
	Principles of Surgical Orthodontics		*Minor surgical procedures*	*Brief knowledge of correction of:- Mandibular prognathism and Retrognathism* *Maxillary Prognathism and Retrognathism* *Anterior open bite and deep bite*
	Recent advances in orthodontics		*Orthodontic Materials* *Orthodontic Techniques* *Recent Concepts*	

	Retention and Relapse	Definition.,need for retention. causes of relapse. Theories of retention methods of Retention		Different types of retention devices, Duration of retention,

NON-DIDACTIC

STRATERGY							
YEAR	PRACTICAL	CLINICAL / PRECLINICAL	DEMONSTRATION	TUTORIAL/ DISCUSSION	SEMINAR/ ASIGNMENT	INTREGRATED TEACHING	HOURS ALLOTED
TOPICS							
III BDS	I) Journal write up on topics (5hrs) -Introduction to orthodontics -Aims of Orthodontic treatment -Branches of Orthodontics -History of Orthodontics -Stainless steel -General principles of wire bending -Pliers used in	1) Making upper and lower Alginate impression (5hrs) 2). Study Model preparation and Model Analysis (10hrs)	1)Manipulation and procedure of Alginate Impression (4hrs) 2) study model preparation (5hrs) 3)Model analysis -Pont's Analysis -Ashley Howe's Analysis -Carey's Analysis -Bolton's Analysis -Moyer's Analysis (6hrs)	1) Material and procedure of Dental impression (2hrs) 2)Model analysis -Pont's Analysis -Ashley Howe's Analysis -Carey's Analysis -Bolton's Analysis -Moyer's Analysis (8hrs)			75hrs

	orthodontics -Removable orthodontic appliance Clasps **2)** *Basic wire bending exercise (15hrs)* **3)** *Fabrication of Clasps(5hrs)* **4)** *Fabrication of Springs. (5hrs)* *5) Fabrication of Canine retractors (5hrs)*						
	35 hrs	***15hrs***	***15hrs***	***10hrs***	***0***	***0***	***75hrs***
IV BDS	*1. Adam's Clasp on Anterior teeth Gauge 0.7mm(5hrs)* *2. Modified Adam's Clasp on upper arch Gauge 0.7mm (5hrs)* *3. High Labial bow with Apron spring on upper arch (Gauge of Labial bow - 0.9mm, Apron spring - 0.3mm)(5hrs)* *4. Coffin*	*1.Case History taking(6hrs)* *2. Case discussion(6hrs)* *3. Discussion on the given topic (6hrs)* *4.Cephalometric tracing* *a. Tracing* *b. Down's Analysis* *c. Steiner's Analysis* *d. Tweed's Analysis (27hrs)*	*1)Cephalometric tracings (10hrs)* *- Down's Analysis* *-Steiner's Analysis* *--Tweed's Analysis* *2) Adam's Clasp on Anterior teeth Gauge 0.7mm(1hrs)* *3)Modified Adam's Clasp on upper arch Gauge 0.7mm (1hrs)* *4)High Labial*	*1)Case discussion -Case history -Clinical examination - Functional examination (6hrs)* *2)Discussion on Journal topics(6hrs)* *3)Cephalo*	*Assignment submission (2hr)*	*1) Chair side discussion (7hrs)* *2)Making of Alginate impression (7hrs)*	*130 hrs*

	spring on upper arch Gauge 1mm(5hrs) *5.Appliance Construction in Acrylic(20hrs)* *-Upper & Lower Hawley's Appliance* *-Upper Hawley's with Anterior bite plane* *- Upper Habit breaking Appliance* *-Upper Hawley's with Posterior bite plane with 'Z' Spring* *-Construction of Activator* *- Lower inclined plane/Catalan's Appliance* *-Upper Expansion plate with Expansion Screw*		*bow with Apron spring on upper arch (Gauge of Labial bow - 0.9mm, Apron spring - 0.3mm) (2hrs)* *5)Coffin spring on upper arch Gauge 1mm (1hrs)*	*metric. (2hrs)*			
	40hrs	***45hrs***	***15hrs***	***14hrs***	***2hr***	***14hrs***	***130 hrs***

HEAD OF DEPARTMENT
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C.D.C.R.I. RAJNANDGAON