

Year:	Fourth Year
Subject Name:	Conservative Dentistry And Endodontics
Subject Code:	1DS1010303
Pre-requisite:	-None-

OBJECTIVES

A. Knowledge and understanding

The graduate should acquire the following knowledge during the period of training.

- To diagnose and treat simple restorative work for teeth.
- To gain knowledge about esthetic restorative material and to translate the same to patients need.
- To gain the knowledge about endodontic treatment on the basis of scientific foundation.
- To carry out simple endodontic treatment.
- To carry out simple luxation of tooth and its treatment and to provide emergency endodontic treatment.

B. Skills and Attitude

He should attain following skills necessary for practice of dentistry

- To use medium and high speed handpieces to carry out restorative work.
- Poses the skills to use and familiarize endodontic instrument and materials needed for carrying out simple endodontic treatment.
- To achieve the skills to translate patient esthetic needs along the function.

ATTITUDE:

- Maintain a high standard of professional ethics and conduct and apply these in all aspects of professional life.
- Willingness to participate in CDE programme to update the knowledge and professional skill from time to time.
- To help and participate in the implementation of the national oral health policy.
- He should be able to motivate the patient for proper dental treatment at the same time proper maintenance of oral hygiene should be emphasise which will help to maintain the restorative work and prevent future damage.

Minimum working hours-

Lectures – 45 hrs

Clinical hours- 90 hrs

Total - 120 hrs

Reference Books:

1. Esthetic Guidelines for restorative dentistry Scharer & others
2. Esthetic of anterior fixed prosthodontics ; Chiche (GJ) & Pinault(Alain)
3. Esthetic & the Treatment of Facial form , Vol28; Mc Namara (JA)

Syllabus

Conservative Dentistry and Endodontics

1. Nomenclature of Dentition: Tooth numbering systems A.D.A. Zsigmondy Palmer and F.D.I. systems.
2. Principles of Cavity Preparation: Steps and nomenclature of cavity preparation classification of cavities, nomenclature of floors angles of cavities.
3. Dental Caries: Etiology, classification clinical features, morphological features, microscopic features, clinical diagnosis and sequel of dental caries.
4. Treatment Planning For Operative Dentistry: Detailed clinical examination, radiographic examination, tooth vitality tests, diagnosis and treatment planning, preparation of the case sheet.
5. Gnathological Concepts of Restoration: Physiology of occlusion, normal occlusion, Ideal occlusion, mandibular movements and occlusal analysis. Occlusal rehabilitation and restoration.
6. Armamentarium for Cavity Preparation: General classification of operative instruments, Hand cutting instruments design formula and sharpening of instruments. Rotary cutting instruments dental bur, mechanism of cutting, evaluation of hand piece and speed current concepts of rotary cutting procedures. Sterilization and maintenance of instruments. Basic instrument tray set up.
7. Control of Operating Field: Light source sterilization field of operation control of moisture, rubber dam in detail, cotton rolls and anti sialogagues.
8. Amalgam Restoration: Indication contraindication, physical and mechanical properties, clinical behavior. Cavity preparation for Class I, II, V and III. Step wise procedure for cavity preparation and restoration. Failure of amalgam restoration.
9. Pulp Protection: Liners, varnishes and bases, Zinc phosphate, zinc polycarboxylate, zinc oxide eugenol and glass Ionomers cements.
10. Anterior Restorations: Selection of cases, selection of material, step wise procedures for using restorations, silicate (theory only) glass ionomers, composites, including sand witch restorations and bevels of the same with a note on status of the dentine bonding agents.
11. Direct Filling Gold Restorations: Types of direct filling gold indications and limitations of cohesive gold. Annealing of gold foil cavity preparation and condensation of gold foils.
12. Preventive Measures in Restorative Practice: Plaque Control, Pit and fissure sealants dietary measures restorative procedure and periodontal health. Contact and contour of teeth and restorations matrices tooth separation and wedges.
13. Temporization or Interim Restoration.
14. Pin Amalgam Restoration Indication Contra Indication: Advantages disadvantages of each types of pin methods of placement use of auto matrix. Failure of pin amalgam restoration.
15. Management of Deep Carious Lesions Indirect and Direct Pulp Capping.

16. Non Carious Destruction's Tooth Structures Diagnosis and Clinical Management
17. Hyper Sensitive Dentine and Its Management.
18. Cast Restorations: Indications, contra indications, advantages and disadvantages and materials used for same Class II and Class I cavity preparation for inlays fabrication of wax pattern spurring inverting and casting procedures & casting defects.
19. Die Materials And Preparation Of Dies.
20. Gingival Tissue Management for Cast Restoration and Impression Procedures
21. Recent Cavity Modification Amalgam Restoration.
22. Differences between Amalgam and Inlay Cavity preparation with note on all the types of Bevels used for Cast Restoration.
23. Control of Pain during Operative Procedures.
24. Treatment Planning For Operative Dentistry Detailed Clinical Examination Radiographic Examination
25. Vitality Tests, Diagnosis and Treatment Planning and Preparation of Case Sheet.
26. Applied Dental Materials.
 - (a) Biological Considerations- Evaluation, clinical application and adverse effects of the following materials. Dental cements, Zinc oxide eugenol cements zinc phosphate cements, polycarboxylates glass Ionomers cements, silicate cement calcium hydroxides varnishes.
 - (b) Dental amalgam, technical considerations mercury toxicity mercury hygiene.
 - (c) Composite, Dentine bonding agents, chemical and light curing composites
 - (d) Rubber base Imp. Materials
 - (e) Nobel metal alloys & non noble metal alloys
 - (f) Investment and die materials
 - (g) Inlay casting waxes
 - (h) Dental porcelain
 - (i) Aesthetic Dentistry
27. Endodontics: introduction definition scope and future of Endodontics
28. Clinical diagnostic methods
29. Emergency endodontic procedures
30. Pulpal diseases causes, types and treatment.
31. Periapical diseases: acute Periapical abscess, acute periodontal abscess phoenix abscess, chronic alveolar abscess granuloma cysts condensing osteitis, external resorption.
32. Vital pulp therapy: indirect and direct pulp capping pulpotomy different types and medicaments used.
33. Apexogenesis and apexification or problems of open apex.
34. Rationale of endodontic treatment case selection indication and contraindications for root canal treatments.
35. Principles of root canal treatment mouth preparation root canal instruments, hand instruments, power driven instruments, standardization color coding principle of using endodontic instruments. Sterilization of root canal instruments and materials rubber dam application.
36. Anatomy of the pulp cavity: root canals apical foramen. Anomalies of pulp cavities access cavity preparation of anterior and premolar teeth.

37. Preparation of root canal space. Determination of working length, cleaning and shaping of root canals, irrigating solution chemical aids to instrumentation.
38. Disinfection of root canal space intracanal medicaments, poly antibiotic paste Gross mans paste, mummifying agents. Outline of root canal treatment, bacteriological examinations, culture methods.
39. Problems during cleaning and shaping of root canal spaces. Perforation and its management. Broken instruments and its management, management of single and double curved root canals.
40. Methods of cleaning and shaping like step back crown down and conventional methods.
41. Obturation of the root canal system. Requirements of an ideal root canal filling material, Obturation methods using gutta percha healing after endodontic treatment. Failures in Endodontics.
42. Root canal sealers. Ideal properties classification. Manipulation of root canal sealers.
43. Post endodontic restoration fabrication and components of post core preparation.
44. Smear layer and its importance in Endodontics and conservative treatment.
45. Discolored teeth and its management. Bleaching agents, vital and non vital bleaching methods.
46. Traumatized teeth classification of fractured teeth. Management of fractured tooth and root. Luxated teeth and its management.
47. Endodontic surgeries indication contraindications, pre operative preparation. Pre medication surgical instruments and techniques apicectomy, retrograde filling, post operative squeal trephination hemi section, radiscetomy techniques of tooth reimplantation (both intentional and accidental) endodontic implants.
48. Root resorbtion.
49. Emergency endodontic procedures.
50. Lasers in conservative Endodontics (introduction only) practice management
51. Professional association dentist act 1948 and its amendment 1993.
52. Duties towards the govt. Like payments of professional tax, income tax.
53. Financial management of practice
54. Dental material and basic equipment management.
55. Ethics