

**COURSE TITLE: DENTAL CARIES, PREVENTIVE ASPECT, ANESTHESIA & RADIOGRAPHY AND CLINICAL PRACTICE**

|                     |                       |                   |              |
|---------------------|-----------------------|-------------------|--------------|
| <b>STUDY HOURS:</b> | <b>60+160</b>         | <b>MARKS</b>      |              |
| <b>PAPER:</b>       | <b>01</b>             | <b>THEORY :</b>   | <b>120</b>   |
| <b>Term :</b>       | <b>4<sup>th</sup></b> | <b>PRACTICAL:</b> | <b>30</b>    |
|                     |                       | <b>TIME :</b>     | <b>03HRS</b> |

**COURSE CONTENTS STUDY HOURS  
(Theory +Practical)**

| <b>COURSE CONTENTS</b>   | <b>STUDY HOURS</b> |
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| <b>A. DENTAL CARIES- CONTROL AND PREVENTION</b>  | <b>12+18</b>       |
| A1. Definition of Dental caries, teeth affected, order and surface types of caries.  |                    |
| A2. Epidemiology – Age, Sex distribution, Genetics.  |                    |
| A3. Etiology theories, diet, acid attack, control and prevention, fluoride, enzyme inhibitors.   |                    |
| A4. Diet control.  |                    |
| A5. Tooth pastes.  |                    |
| A6. Natural hygiene.   |                    |
| A7. Fluorides, Fluoridation. Prophylactic odonototomy.   |                    |
| <b>B. Dental HEALTH EDUCATION</b>  | <b>12+18</b>       |
| B1. MEANING OF health, positive health, Dental health, Dental education.   |                    |
| B2. Objective and pre-requisites.  |                    |
| B3. Responsibility for Dental education.   |                    |
| B4. Chair side talks, lectures and group talks, exhibitions, health weeks, window displays, film shows, press radio and television articles.   |                    |
| B4. Discussions and seminars.  |                    |
| <b>C. LOCAL ANAESTHESIA</b>  | <b>6+12</b>        |
| C1. Definition. Used by surgeon, used by Dental auxiliary.   |                    |
| C2. Instruments, syringes, hubs, needles.  |                    |
| C3. Local anesthetic solutions- epinephrine, procaine, lignocaine, topical anesthetics (all drugs in brief outline)  |                    |
| C4. Types of local anesthesia, block infiltration, anatomical distribution of nerves for anesthesia  |                    |
| C5. Site and location of injection, technique, contra-indications for use of local   |                    |
| C6. And general anesthetics. Post injection complications  |                    |
| <b>D. RADIOGRAPHY</b>  | <b>6+12</b>        |
| Types of x-ray Indications, for use in dentistry. Dangers and precautions, types of intra-oral films. Bitewing and extra-oral Technique of processing, developing and amounting records, Practical work based on above.  |                    |
| <b>E. ORTHODONTICS</b>   | <b>12+30</b>       |
| Definition: Brief outline of growth of skull and manidble .Eruption dates. Paths of eruption. Deciduous, Mixed & adult dentition. Normal aches.Roles of muscle in normal development. Brief outline of angle’s Classification, skeletal classification. Etiology of malocclusion. Local and general factors. Habit effect of premature loss of primary teeth, permanent teeth. Brief account of methods of treatment by removable appliances. Fixed appliances imitations of treatment. Limitations of prevention. |                    |

**F. PREVENTIVE ASPECT****12+40****Oral Hygiene:**

The field of operation macroscopic appearance of teeth gingivae sulcus and epithelial attachment in the normal healthy mouth. Deposits and stains, their common location in the mouth, Factors influencing accumulation and retention. Classification and stains by location and by origin, appearance and treatment of yellow stains, green, black line stain metallic stains arising from degeneration of the pulp and stain caused by filling materials and drugs. Enamel hyperplasia, Dental plaque, hard deposits, supragingival and subgingival calculus. Origin and composition of different deposits. Practical procedures for prophylactic removal of deposits. Possible sequel of failure of removal of stains and deposits and effects on the teeth, supporting tissue and general health, Gingivitis, Instrumentation and description of the instruments included and their use. Maintenance of instruments. Polishing instruments and rotary instruments. Selection of instruments and their use. Maintenance of instruments, use of brushed rubber cups, etc. The procedures of oral inspection and prophylaxis. Natural and artificial prophylaxis, self cleansing, food, tooth brushing techniques, and additional cleansing methods. Instructing the patient in personal and oral hygiene. Practical instruction in the use of scaling and polishing of some of more advance periodontal conditions which are treatment by the Dental surgeon.

**G. PREVENTION****30**

- G1. Plaque control
  - G1.1 Disclosure of plaque.
  - G1.2 Dental Brushes of various types and technique of Brushing and timings.
  - G1.3 Inter Dental cleaning with floss.
- G2. Chemical plaque control.
  - G2.1 Chlorhexidene Mouth washes.
  - G2.2 Fluoridation (topical application of fluorides)
  - G2.3 Identification of caries and proper referred to Dental surgery.
  - G2.4 Fissure sealants
  - G2.5 Oral lesions.
- G3. School visits for dental health education

**RECOMMENDED BOOKS**

1. Peterson's = Clinical Dental Hygiene C.V. Mosby Co.
2. Steel P.F. Dimensions of Dental Hygiene
3. Wilkins E.M Clinical Practice of Dental Hygienist, Lea of Febiger.
4. Pattison A and Behrans J The Detection and Removal of Calculus Preston Publishing.
5. Clinical Practice of the Dental Hygienist Esther M. Wilkins
6. Dental Radiography, Principle and Techniques by Joen Lannucci Harin

**REFERENCE BOOKS**

1. Burket's Oral Medicine, Diagnosis and Treatment by Martin S. Greenberg
2. Dental Anatomy, Physiology and Occlusion by Wheeler's
3. Atlas of Operative Dentistry Pre-clinical and clinical procedure by Joseph R. Evans



- G. PROBLEM PATIENTS** **6+6**  
 Care and handling of:  
 G1. Mentally handicapped.  
 G2. Geriatrics.  
 G3. Nervous patients.non-cooperative patients.  
 G4. Children.  
 G5. Here lip and cleft patients.
- H. HEALTH AND SAFETY AT WORK** **9+12**  
 General knowledge of:  
 H1. Hazards of high-speed instruments in Dental surgery and their precautions.  
 H2. Fire precautions.  
 H3. Surgery hazards.  
 H4. First aid. Welfare of patients.  
 H5. General duties of Dental surgery assistant.  
 H6. Gases bola tile and inflammable material/ medicines.  
 H7. Hazards of electrostatic current, diathermy, electro cautery coagulation in operatory.
- I. PRACTICAL FOR DINTAL HYGIENIST** **94**
- I1. Dental Surgery and its various components.  
 I2. Dental chair and unit  
 I2.1 Function / operation.  
 I2.2 Maintenance.  
 I2.3 Common hazards / how to coupe up.  
 I3. Sterilization  
 I3.1 Idea  
 I3.2 Methods of sterilization  
 I3.3 Physical.  
 I3.4 Chemical.  
 I4. Auto claving  
 (1-week duty for each student in Operation Theatre)  
 I5. Identification of various Dental instruments and their assignments on trolley.  
 I6. Examination instruments  
 I7. Recording of data.  
 I8. Scaling instrument and their arrangement on dental tray / trolley.  
 I8.1 Use of Model  
 I9. Polishing instruments and equipment.  
 I9.1 Slow and High speed hand pieces.  
 I9.2 Polishing materials  
 I10. Filling instruments and metri and retainer.  
 I11. Rotary Instruments  
 I11.1 Disposable, Burs FG, slow speeq, Stones, polishing cups etc.  
 I12. Endo-dentonc Instruments.  
 I13. Dental Materials in general.  
 I14. Minor oral surgery instruments, arrangement & stitching armamentarim.  
 I15. Scaling procedure.  
 I15.1 Manual scaling  
 I15.2 Manual scaling (35 cases to be completed)  
 I15.3 Sharpening of instruments.  
 I15.4 Usage and precautions.

- I15.5 Proper positing of patient with respect to operator and operation.
- I15.6 Procedure.
  
- I16. Ultra sonic scalar and scaling. (35 cases to be completed)
  - I16.1 Introduction to machine indication and contra indication with respect to types of machine
  - I16.2 Procedures.
  
- I17. Gingival dressing materials with respect to gingival packs.
- I18. Polishing procedure.
- I19. Patients requiring special attention.
  - I19.1 Physically Handicapped.
  - I19.2 Mentally handicapped casws.
  - I19.3 Orthodontics.
  - I19.4 Oral surgery - Attendance to O.T.

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1. Peterson's = Clinical Dental Hygiene C.V. Mosby Co.
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