

UG Curriculum

The undergraduate students in this department include the First Year and the Third Year students for the subjects Dental Anatomy & Dental Histology, and Oral Pathology & Oral Microbiology respectively.

DENTAL ANATOMY, EMBRYOLOGY AND ORAL HISTOLOGY

Dental Anatomy including Embryology and Oral Histology – a composite of basic Dental Sciences & their clinical applications.

Skills

The student should acquire basic skills in :

1. Carving of crowns of permanent teeth in wax.
2. Microscopic study of Oral tissues.
3. Identification of Deciduous & Permanent teeth.
4. Age estimation by patterns of teeth eruption from plaster casts of different age groups.

Objectives

1. The student is expected to appreciate the normal development, morphology, structure & functions of oral tissues & variations in different pathological/non-pathological states.
2. The student should understand the histological basis of various dental treatment procedures and physiologic ageing process in the dental tissues.
3. The students must know the basic knowledge of various research methodologies.

Tooth morphology

Morphology of permanent teeth , Morphology of Deciduous teeth, Generalized differences between Deciduous & Permanent teeth, Description of individual deciduous teeth, including their chronology of development, endodontic anatomy, differences between similar class of teeth & identification of individual teeth, Occlusion

Oral embryology

- Brief review of development of face, jaws, lip, palate & tongue, with applied aspects
- Development of teeth :
- Eruption of deciduous & Permanent teeth :
- Shedding of teeth

Oral histology

- Detailed microscopic study of Enamel, Dentine, Cementum & Pulp tissue and their Age changes & Applied aspects
- Detailed microscopic study of Periodontal ligament & alveolar bone, age changes, histological changes in periodontal ligament & bone in normal & orthodontic tooth movement, applied aspects of alveolar bone resorption
- Detailed microscopic study of Oral Mucosa
- Salivary Glands
- TM Joint : Review of basic anatomical aspects & microscopic study & clinical considerations.
- Maxillary Sinus
- Processing of Hard & soft tissues for microscopic study, Ground sections, decalcified sections & routine staining procedures.

- Basic histochemical staining patterns of oral tissues.

ORAL PATHOLOGY & ORAL MICROBIOLOGY

Introduction:

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

Objectives

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

Skills:

- Microscopic study of common lesions affecting oral tissues through microscopic slides & projection slides.
- Study of the disease process by surgical specimens.
- Study of teeth anomalies/polymorphisms through tooth specimens & plaster casts.
- Microscopic study of plaque pathogens.
- Study of haematological preparations (blood films) of anaemias & leukemias.
- Basic exercises in Forensic Odontology such as histological methods of age estimation and appearance of teeth in injuries

Oral Pathologies:

- Developmental disturbances of teeth, jaws and soft tissues of oral & paraoral region
- Forensic Odontology
- Dental Caries
- Periodontal Diseases
- Microbiology: Bacterial, Viral, Fungal
- Common non-inflammatory diseases involving the jaws
- Diseases of TM Joint
- Tumours of the Oral Cavity : Odontogenic, Non-Odontogenic & Salivary Gland Tumours, Benign Epithelial, Benign Mesenchymal, Malignant Epithelial, Malignant Mesenchymal & Other Reticuloendothelial tumours.
- Salivary Gland - Benign Epithelial neoplasms & Malignant Epithelial neoplasms
- Metastatic tumours - Tumors metastasizing to & from oral cavity & the routes of metastasis.
- Traumatic, Reactive & Regressive lesions of Oral Cavity
- Attrition, Abrasion, Erosion, Bruxism, Hypercementosis, Dentinal changes, Pulp calcifications & Resorption of teeth.
- Radiation effects of oral cavity
- Physical & Chemical injuries including allergic reactions of the oral cavity.
- Healing of Oral wounds & complications - Dry socket
- Non neoplastic Salivary Gland Diseases :
- Brief review & oral manifestations, diagnosis & significance of common Blood, Nutritional, Hormonal & Metabolic diseases of Oral cavity
- Mucocutaneous Lesions :
- Facial neuralgias - Trigeminal & Glossopharyngeal. VII nerve paralysis, Causalgia.
- Psychogenic facial pain & Burning mouth syndrome
- Pigmentation of Oral & Paraoral region & Discolouration of teeth

- Oral precancer – cancer; Epidemiology, aetiology, clinical and histopathological features, TNM classification. Recent advances in diagnosis, management and prevention
- Biopsy : Types of biopsy, value of biopsy, cytology, histo chemistry & frozen sections in diagnosis of oral diseases.

DURATION OF LECTURE & PRACTICAL

Dental Anatomy & Dental Histology:

Lecture : 105

Practical : 250 hours

Oral Pathology and Oral Microbiology:

Lecture : 120 hours

Practical : 80 hours

ATTENDANCE REQUIREMENTS

Theory : 75%

Practical : 80%

INTERNSHIP

1. History-recording and clinical examination	5 Cases
2. Blood, Urine and Sputum examination	5 Cases
3. Exfoliative Cytology and smears study	2 Cases
4. Biopsy- Laboratory Procedure & reporting	1 Case

EVALUATION

Evaluation may be achieved by the following tested methods:

1. Written test
2. Practicals
3. Clinical examination
4. Viva Voce
5. Journals- Dental Anatomy & Dental Histology

Internal assessment examination

The continuing assessment examinations are held 3 times in a particular year and the average marks of these examinations are considered. 10% of the total marks in each subject for both theory, practical and clinical examination separately are set aside for the internal assessment examinations.