THIRD PROFESSIONAL BDS
SYLLABUS & COURSES

Medicine
General Surgery
Oral Pathology + Oral Microbiology
Periodontology
Oral medicine

Clinical Assignments
General medicine wards and emergency
General surgical wards and emergency
Periodontology clinics
Oral Medicine clinics
Oral surgery, exodontia
Prosthodontics partial dentures

Pre-clinical Assignments
Pre-clinical Paedodontics
Pre-clinical Crown & Bridge

Laboratory Assignments
Histopathological slide preparation and interpretation

MEDICINE

The instruction in clinical medicine should include the etiology, pathogenesis, clinical presentation, appropriate investigations and management principles of the diseases of various systems.

It is extremely important that the oral manifestations and clinical significance of various systemic diseases must be highlighted and potential complications of medically compromised patients be appreciated by the student.

Eliciting a thorough medical history, carrying out a meticulous clinical examination, (general as well as systemic) diagnosis and treatment planning.

Application of invasive and non-invasive diagnostic modalities in medical practice
Diseases of cardiovascular system
Rheumatic fever
Rheumatic heart disease
Ischemic heart disease
Differential diagnosis of acute chest pain and management principles
Cardiac failure
Cardio-pulmonary resuscitation: Basic life support (BLS) and advanced life support (ALS)
Pericarditis
Valvular heart disease
Infective endocarditis
Congenital heart disease
Pericarditis
Hypertension

Diseases of respiratory system
Chronic bronchitis
Bronchial asthma
Emphysema
Bronchiectasis
Pneumonia
Tuberculosis
Respiratory distress syndrome of the newborn (hyaline membrane disease) and adult
Pulmonary edema
Pulmonary thrombo-embolism
Acute respiratory obstruction
Respiratory failure
Cystic fibrosis
Bronchial carcinoma
Cyanosis
Dyspnea
Finger clubbing

Hematological Diseases
Anemias (all types)
Polycythemia
Leukemias
Myeloproliferative and myelodysplastic disorders
Thrombocytopenias
Hemophilia, von Willebrand disease, Christmas disease and other disorders of blood clotting system

Infectious Diseases
Common bacterial infections
Common parasitic infections
Common protozoal infections
Common fungal infections
Common viral infections
Diseases of nervous system
Meningitis
Infections of CNS
Headache
Migraine
Cluster headaches
Facial pain with special emphasis on trigeminal neuralgia, vagoglossopharyngeal neuralgia, multiple sclerosis and other central/peripheral causes
Facial paralysis central and peripheral causes with special emphasis on differentiation of upper motor neuron and lower motor neuron lesions and Bell’s palsy
Cerebrovascular accident
Hemiplegia and paraplegia
Epilepsy
Parkinson’s disease
Dementia, Alzheimer’s disease
Cerebral edema

Diseases of gastrointestinal system
Esophagitis
Peptic ulcer
Duodenal ulcer
Celiac disease
Inflammatory bowel disease
Chronic diarrhea
Cancers of GIT

Diseases of liver
Acute and chronic infections, viral hepatitis A,B,C,
Liver cirrhosis
Alcoholic liver disease
Liver Abscess
Hepatic encephalopathy
Hepatocellular carcinoma
Jaundice: hereditary and acquired causes
Liver function tests: rationale and interpretation

Diseases of kidneys
Nephrotic syndrome
Infections of the kidney and urinary tract system
Acute and chronic renal failure
Uremia
Kidney stones
Renal dialysis and transplants
Diseases of Endocrine System.
Disorders related to the hyper and hypo secretions of the pituitary gland
Disorders related to the hyper and hypo secretions of the thyroid gland
Disorders related to the hyper and hypo secretions of the parathyroid glands
Disorders related to the hyper and hypo secretions of the adrenal cortex
Disorders related to the hyper and hypo secretions of the adrenal medulla
Disorders related to the hyper and hypo secretions of Islets of Langerhans

Clinical Assignments:
General medicine OPD, wards and emergency

Recommended Books
Text book of Medicine Davidson
Clinical Medicine P.J.Kumar
Synopsis of medicine in dentistry by Lawrence Cohen.

GENERAL SURGERY

Surgical Principles
Eliciting a thorough medical history, carrying out a meticulous clinical examination, diagnosis and treatment planning.
Application of invasive and non-invasive diagnostic modalities in surgical practice
Cross infection control and sterilization
Surgical instruments and their use
Sutures and suturing techniques
Protocols of operation theatre, ward work, patient clerking and out-patient clinics
Introduction to basic surgical skills

Healing and Repair of Wounds
Mechanism of healing and repair in both hard and soft tissues.
Complications of wound healing and their management

Surgical Infections
Clinical presentation, diagnosis and treatment of bacterial, viral, fungal, and protozoal infections including hospital infections.
Cellulitis, spread of infection through fascial planes, Ludwig’s angina, intracranial complications of dental infection
Osteomyelitis.
Chronic sinuses and fistulae of the oral & maxillofacial region.

Trauma Care
Principles of pre-hospital, emergency and definitive care of trauma victims with special emphasis on the management of airway, bleeding and circulation and CPR protocols.
Principles of management of head, chest and abdominal injuries
Principles of nutrition and fluid intake in trauma victims
Presentation, diagnosis and treatment of maxillofacial trauma
Hemorrhage, Shock, Burns

Causes, presentation, diagnosis and management of primary and secondary hemorrhage; vasovagal, cardiovonic, septic, anaphylactic, neurogenic hypoglyemic, and hypovolemic shock.

Presentation and management of burns victims.

Oral & Maxillofacial Pathology

Epidemiology, classification, clinical presentation, diagnosis and treatment of benign and malignant tumors of oral cavity including epithelial, soft tissue, and bone tumors. Special emphasis should be laid down on the oral squamous cell carcinoma, basal cell carcinoma, melanoma and osteosarcoma.

Epidemiology, classification, clinical presentation, diagnosis and treatment of odontogenic tumors and cysts with special emphasis on ameloblastoma, Fimborg tumor, dentigerous cyst, radicular cyst and keratocyst.

Maxillary sinusitis, carcinoma and other pathological lesions of maxillary sinus. Sialadenitis, sialolithiasis, sialosis, Sjogren's syndrome, Miekulik syndrome.

Cystic lesions like mucocele, ranula of salivary glands.

Epidemiology, classification, clinical presentation, diagnosis and treatment of benign and malignant tumors of salivary glands.

Neck pathology

Cervical lymphadenopathy, thyroid gland, thryroglossal cyst, parathyroid gland, branchial cyst, dermoid cyst, sternomastoid tumor, cervical rib, carotid body tumor, carotid aneurysm, thymic swellings, cystic hygroma, pharyngeal pouch, spinal abscess etc.

Carcinomata of the esophagus and larynx.

Developmental Pathology

Developmental defects of oral and para-oral structure with special emphasis on the cleft lip and palate.

Clinical Assignments

General surgical OPD, wards and emergency.

Recommended Books

Text book of general surgery by Bailey & Love

An Introduction to the Symptoms & Signs of Surgical Disease Norman Browse

Clinical Methods in General Surgery by S. DAS

Clinical Methods in General Surgery by Hamilton & Bailey

Text book of Surgery by Ijaz Ahsan
ORAL PATHOLOGY / MICROBIOLOGY

Development Distribution of Oral and Para Oral Structures:

Tongue: Macroglossia: microglossia, ankylosed tongue, benign, fissured tongue, benign migratory glossitis, black hairy tongue, lingual thyroid and lingual varicosities.

Lips: Commisural and para median lip pits, fissures, double lip, cleft lips.

Oral mucosa: Fordyce’s granules, genodermatosis, leukoedema.

Gingiva: Fibromatosis gingivae.

Salivary glands: Aplasia, atresia of ducts, ectopic glands, developmental cysts.

Jaws: Condylar hyperplasia, coronoid hyperplasia, condylar duct, hemihyperplasia, progressive hemifacial atrophy, Crouzon’s syndrome, Apert’s syndrome, mandibulofacial dysostosis.

Development cysts: Including palatal cyst of newborn, nasolabial cyst, globulomaxillary cyst, nasopalatine duct cyst, median palatal cyst, epidermoid and dermoid cysts, thyroglossal tract cyst, branchial cyst, lymphoepithelial cyst.

Teeth: Development disturbances in size of teeth micro and macrodontia; disturbance in shapes of teeth including gemination, fusion, concrescence, dilaceration, Talon’s cusps, dens in dente, taurodontism etc. Distribution in number of teeth like, anodontia, hypodontia, supernumerary teeth, and predeciduous teeth. Distribution in structure of teeth like amelogenesis imperfecta, enamel hypoplasia due to systemic disturbance, enamel hypocalcification and enamel hypomaturation, dentinogenesis imprefecta, dentinal dysplasias, odontodysplasia; ankylosis of teeth.

Epithelial Pathology:
Benign tumors of epithelial origin including papilloma, kerto acanthoma, Heck’s diseases, verruciform xanthoma, etc.

Pigmented cellular nevus and oral melanotic macules, melanocanthoma, acquired melanocytic nevus etc.

Premalignant lesions / conditions of the oral cavity like leukoplakia, erythroplakia, oral submucous fibrosis, nicotinic stomatitis, actinic keratosis, actinic cheilosis, tobacco pouch keratosis, Plummer Vinson syndrome etc. Epithelial malignancy including oral squamous cell carcinoma, verrucous carcinoma, spindle cell carcinoma, basal cell carcinoma, melanoma, etc.

Soft Tissue Pathology:
Fibroma, giant cell fibroma, epulis fissuratum, inflammatory papillary hyperplasia, fibrous histiocytoma, fibromatosis, pyogenic granuloma etc.

Lipoma, hemangiommas, Rendu-Osler-Weber syndrome, Struge-Weber disease, angiofibromas and lymphangiomas.

Traumatic neuroma, neurofibroma, neurofibromatosis, schwannoma and multiple endocrine neoplasia syndromes.

Soft tissue sarcomas including fibrosarcoma, liposarcoma, malignant fibrous histiocytoma, neurofibrosarcoma, Kaposi’s sarcoma, angiosarcoma, leiomyosarcoma, rhabdomyosarcoma, synovial sarcoma, alveolar soft part sarcoma, metastatic soft tissue sarcomas.
Bone Pathology:
- Osteogenesis imperfecta, osteopetrosis, cleidocranial dysplasia, focal osteoporotic bone marrow defect, idiopathic osteosclerosis, massive osteolysis, Paget's disease of bone, Langerhans cell disease,
- Giant cell lesions,
- Fibrous osseous lesions
- Granulomatous lesion
- Osteoma, Gardner syndrome, osteoid osteoma, osteoblastoma, chondroma, chondromyxoid fibroma, bony hemangioma, osteosarcoma, fibrosarcoma, chondrosarcoma, Ewing's sarcoma, metastatic tumors of the jaws.

Salivary Gland Pathology:
- Sialadenitis
- Stalolithiasis
- Sialosis
- Sialorrhea
- Xerostomia
- Benign lymphoepithelial lesion
- Sjogren's syndrome
- Cystic lesions like mucocele, ranula and sialocyst of salivary glands
- WHO classification of salivary gland tumors

Cysts of Odontogenic Origin:
- Pathogenesis of jaw cysts, clinical signs and symptoms, diagnostic modalities e.g. radiography, aspiration, biochemistry, culture & sensitivity, biopsy etc
- WHO classification,
- Dentigerous cyst,
- Eruption cyst
- Gingival cyst,
- Primordial cyst / odontogenic keratocyst, Gorlin Caltz syndrome
- Radicular cyst
- Lateral periodontal cyst
- Calcifying odontogenic cyst
- Carcinoma in odontogenic cysts

Tumors of Odontogenic Origin:
- WHO classification,
- Ameloblastoma, squamous odontogenic tumor, calcifying epithelial odontogenic tumor (Pindborg tumor), ameloblastic fibroma, ameloblastic fibro-dentinoma & ameloblastic fibroodontoma, odontoameloblastoma, adenomatoid odontogenic tumor, calcifying odontogenic cyst, odontomes, odontogenic fibroma, myxoma, cementoblastoma; malignant ameloblastoma, primary intra-osseous carcinoma; malignant variants of other odontogenic epithelial tumors, malignant changes in odontogenic cysts;
Infections:
Diseases of bacterial origin including, impetigo, erysipelas, streptococcal infections, scarlet fever, diphtheria, syphilis, tuberculosis, gonorrhea, leprosy, noma, actinomycosis, cat scratch disease, sinusitis phenomenon of dental caries,
Diseases of viral origin including, herpes group, enterovirus rubella, rubella, mumps and AIDS,
Diseases of fungal and protozoal origin including, candidiasis, histoplasmosis, mucormycosis, cryptococcosis, aspergillosis, balantidiasis, toxoplasmosis, zygomycosis.

Dental Caries
Disease phenomenon of dental caries,
Etiological factors, taking part in production of dental caries
Pathogenesis of disease at the microscopic level
Classification of clinical types of carious lesions depending on the site of involvement and rate of spread, various surfaces involved in various sites, Clinical features of smooth surface, pit and fissure and cervical caries, detail rampant caries, slow progressive caries, arrested caries and secondary caries, Various methods used in diagnosis
Histopathology of enamel caries, mode of spread and shape of lesions in different sites, different zones of lesions, pathway of entry into enamel or initiation of caries, evaluate difference between smooth surface, pit and fissure caries
Advantages of early detection and prevention
Maintenance of oral hygiene
Role of fluoride and fluoridation,
Role of fissure sealants

Diseases of Pulp and Periapical Tissues:
Disease of pulp, etiology, classification, clinical features, pulp tests
Histopathological features, non-vitality of teeth, regressive changes,
Squal of untreated pulpitis
Pulpal calcifications, secondary dentin formations, root resorption
Periapical pathosis-etiology, acute periodontal disease, acute and chronic dentoalveolar abscess, periapical granuloma, radicular cyst, recurrent abscess.

Spread of Oral Infection:
Cellulitis
Spread of infection through fascial planes
Ludwig’s angina
Intracranial complication of dental infection
Osteomyelitis

Physical and Chemical Injuries of the Oral Cavity:
Physical injuries of oral tissues-classification, injuries to teeth, injuries to bone, injuries to soft tissue, cheek biting lip biting, tongue biting etc, burns, emphysema
Effects of radiation and chemotherapy on oral and paraoral structures
Systemic metallic intoxication
Smokers melanosis
Oral trauma from sexual practice, anesthesia necrosis, exfoliative cheilitis, submucosal hemorrhage
Analgam tattoo and other types of oral pigmentation.
Allergies and Immunological Diseases:
Recurrent aphthous stomatitis, Behcet’s syndrome,
Sarcoidosis
Allergic reaction to systemic drug
Allergic contact stomatitis from artificial cinnamon flavoring, contact reactions to dental amalgam
Angioedema

Healing of Oral Wounds:
Healing of gingivectomy wound
Extraction wound
Fractures and bone healing
Factors affecting healing

Diseases of Blood and Blood Forming Organs:
Lymphoid hyperplasia
Anemia
Polycythemia
Hemophilia
Leukemia
Thrombocytopenia
Lymphomas
Multiple myeloma
Plasmacytoma

Oral Aspects of Metabolic Disease:
Mucopolysaccharidoses
Amyloidosis
Jaundice
Hepatitis
Vitamin deficiency
Iron deficiency
Disorders of pituitary, thyroid, parathyroid, adrenal, islets of Langerhans and other glands
Disorders of calcium and phosphate metabolism, uremic stomatitis.
Disorders of other organ systems and their manifestations in the oral cavity

Diseases of Skin:
Ectodermal dysplasia
White sponge nevus
Hereditary benign intraepithelial dyskeratosis
Pachyonychia, congenita,
Dyskeratosis congenita
Xeroderma pigmentosum
Incontinentia pigmenti
Darier’s disease
Peutz Jegher’s syndrome
Hereditary hemorrhagic telangiectasia
Ehler’s Danlos syndrome
Tubercous sclerosis
Epidermolysis, bullosa
Pemphigus
Bullous, pemphigoid
Benign mucous membrane pemphigoid
Linear IgA disease
Dermatitis herpetiformis
Erythema multifforme
Lichen planus
Reiter’s syndrome
Graft versus host disease
Psoriasis
Systemic sclerosis
Acanthosis nigricans
Lupus eritematosus

Facial and Neuromuscular Pathology:
Facial palsy including Bell’s Palsy
Facial pain trigeminal neuralgia, glossopharyngeal neuralgia, atypical facial pain, neuralgia inducing cavitation osteonecrosis, cluster headache, migraine, temporal arteritis, myasthenia gravis, motor neuron disease, glossopyrosis, dysguesia
Frey’s syndrome
Diseases of the temporomandibular joint: Osteoarthritis, rheumatoid arthritis, temporomandibular joint dysfunction syndrome, ankylosis of the temporomandibular joint

Forensic Odontology:
Record management
Identification
Bite pattern evidence,
Child abuse.

Recommended Books
Oral microbiology and immunology by Russel and M.G Newman.
Oral Pathology by Regazy and Caranizza
Essentials of oral pathology by R.A Cawson
Oral pathology by Soames & Southam
Atlas of oral Pathology by Cawson & Scully
Colour atlas of clinical oral pathology by Nolle / Damm / While / Waldron
Maxillofacial pathology, J. Sapp, Lewis Eversole, George Wysocki
Oral pathology, J W Everson
Oral diseases C Scully S Porter
A color of oral pathology C Scully John W Eveson.
PERIODONTOLOGY

Historical background of Periodontology
The normal Periodontium
Classification and epidemiology of periodontal disease
Etiology of periodontal disease
Periodontal microbiology
Host response and host-bacterial interactions in periodontal disease
Dental calculus
Systemic diseases and the Periodontium
Gingival inflammation
Acute gingival infections
Gingival abscess
AIDS and the periodontium
Gingival enlargements
Desquamative gingivitis
Periodontitis: classification, presentation and diagnosis
Periodontal abscess
Periodontal pockets
Bone loss and patterns of bone loss
Diagnosis and treatment planning:
  * Clinical diagnosis
  * Radiographic diagnosis
  * Advanced diagnostic aids
Treatment planning and determining prognosis of periodontal disease
Plaque control
Periodontal instrumentation
Principles of oral prophylaxis, root planning and curettage
Antimicrobials and other chemotherapeutic agents in periodontal therapy
Surgical periodontal therapy
  * Surgical curettage
  * Gingivectomy
  * Flap surgery
  * Osseous surgery
Supportive periodontal therapy
Periodontal-restorative inter-relationships

Clinical Assignments:
  Clinics in Periodontology

Recommended Books
Clinical Periodontology (Glickman) Caranza & Newman
Outline of Periodontics, Manson & Eley (4th Edition) Publisher: Wright
Guide to Periodontics. Jenkins, Allan & Collins Publisher: Heinemann
Color atlas of clinical and surgical periodontology by Straphang & Waite.
A text book of clinical periodontology by Jan Lindhe
Fundamentals of periodontics by Thomas G. Wilson, Kenenth Kornman.
Periodontology and Periodontics, Modern Theory and Practice by Sigurd P. Ramford Major
M. Ash.
ORAL MEDICINE

Normal oral mucous membrane
Abnormal oral mucous membrane
Immunity
Methods of Investigation
Principles of treatment
Oral cancer and precancer
Oral pigmentation
Oral ulceration
Vesiculobullous disease
Autoimmune diseases
Orofacial Allergy
Immunosuppression
Bone diseases
Temporomandibular joint disease
Facial paralysis
Facial pain
Salivary gland disease

Systemic Disease and their Oral Manifestations:
  - Disorders of cardiovascular system
  - Disorders of respiratory system
  - Disorders of blood
  - Infectious diseases
  - Diseases of the skin
  - Disorders of nutrition
  - Disorders of gastrointestinal system
  - Disorders of liver
  - Disorders of kidneys
  - Endocrine disturbances
  - Oral reactions to drug therapy

Clinical Assignments:

Diagnostic clinics in OPD

Recommended Books

A Clinical Guide to Oral Medicine by P J Lamey & M A O Lewis
Oral Medicine by Tyldesley
Medical problems in dentistry by Scully & Cawson