

RAGAS DENTAL COLLEGE & HOSPITAL

(Unit of Ragas Educational Society)

Recognized by the Dental Council of India, New Delhi

Affiliated to The Tamil Nādu Dr.M.G.R. Medical University, Chennai

2/102, East Coast Road, Uthandi, Chennai-600 119. INDIA.

Tele : (044) 24530002, 24530003 -06. Principal (Dir) 24530001

E-mail: Principal@rdc.ac.in, web : www.rdc.ac.in



S.No	Year	Subject	Course Outcome
1.	First Year	General Anatomy	Knowledge and Understanding: <ul style="list-style-type: none">• To identify, show, draw, describe the structural components of the body responsible for carrying out normal body functions• To know the process of development of human embryo emphasizing the development and developmental anomalies of oral, dental and maxillofacial structures including head and neck region• Demonstrates knowledge about histologic structures of different parts of body system and organs• To understand the importance of study of embryology• Knowledge about the derivatives of germ layers: ectoderm, mesoderm and endoderm• To describe the anatomical basis of clinical disorders of head and neck and CNS• To identify and demonstrate the different parts of bones of head and neck, state the gross features and attachments of skull bones including base of skull and cervical vertebrae• To demonstrate movements of joints of head and neck• To demonstrate the boundary and identify the contents of oral cavity, the gross features and nerve supply of tongue, gum and teeth

			<p>Skills:</p> <p>To understand the knowledge acquired in anatomy and to correlate, appreciate and apply in other subjects taught in BDS course</p> <ul style="list-style-type: none"> • The student must be able to describe the location, nerve supply, mode of termination of ducts of salivary glands and their functions • To describe and classify neurons and neuralgia • To explain the functions of different parts of autonomic nervous system • To define terms related to embryology • To define and describe the congenital anomalies of head and neck • To draw and demonstrate the important anatomical points and structures of head and neck • To identify the layers of scalp and the contents of temporal region and infratemporal fossa • To correlate the important clinical conditions associated with structures in head and neck • To identify the different types of tissue on slide under microscope.
		<p>Dental Anatomy</p>	<p>Knowledge and Understanding:</p> <ul style="list-style-type: none"> • To outline the characteristics of human dentition • The student should be able to identify different teeth in different dentition • To differentiate between normal and pathological state of oral structures • Demonstrate knowledge about development of maxilla, mandible, palate, tongue, lips and to state the congenital defects during their formation. <p>Skills:</p> <ul style="list-style-type: none"> • To describe the physiological process of tooth

			<p>development</p> <ul style="list-style-type: none"> • To describe any tooth by its morphology • To mention the chronology of deciduous and permanent teeth • To describe the types of dentitions, dental formula and notation • To describe the mechanism and pattern of tooth shedding and its clinical significance • To mention the pattern of tooth eruption and its clinical significance • To carve human teeth morphology in wax blocks • To identify and describe different histologic structures of Oro-dental tissues. • To explain the clinical importance of teeth and oral tissues
		<p>Physiology</p>	<p>Knowledge and Understanding:</p> <ul style="list-style-type: none"> • To understand the goal of Physiology • To perform physiological experiments • To interpret experimental and investigational data • To demonstrate basic knowledge and understanding on the normal functions of all the organ system of the human body and apply it as a background for clinical subjects <p>Skills :</p> <ul style="list-style-type: none"> • To develop sound attitude for continuing- self education to improve efficiency and skill in physiology • To demonstrate knowledge about blood grouping and blood transfusion • To explain about heart rate and radial pulse • To describe the blood pressure and its regulation • To describe the general mechanism of action, functions and regulation of secretion of hormones • To describe the physiology and

			<p>regulation of body temperature</p> <ul style="list-style-type: none"> • To demonstrate the parts of microscope and skill in using it • To collect and prepare blood sample • To examine the radial pulse and its application • To examine respiratory rate • To elicit light reflex • To record oral and axillary temperature • To determine bleeding time, clotting time, ESR, differential count of WBC
		Biochemistry	<p>Knowledge and Understanding:</p> <ul style="list-style-type: none"> • Demonstrate basic knowledge and understanding on major biomolecules, forming the structure of human body, their functions and role in health and disease • Knowledge about the role of enzymes in the diagnosis of disease • To explain the metabolic reactions in the body To acquire knowledge on fundamental chemical principles involved in body mechanism upon which life process depends <p>Skills :</p> <ul style="list-style-type: none"> • Demonstrate skills in performing and interpreting common biochemistry laboratory tests • To apply the knowledge and understanding of biochemistry in medicine and surgery • To estimate glucose, abnormal constituents of urine • To diagnose diabetes mellitus, renal, liver and thyroid functions • The student will be able to list the laboratory hazards and the precautions to prevent them • To interpret the result of serum urea, creatinine,

			total protein, bilirubin
	Second Year	Microbiology	<p>Knowledge and Understanding:</p> <ul style="list-style-type: none"> • Demonstrate the knowledge and understanding of microorganisms and their role in disease • Knowledge and understanding of immunology for prevention of disease • To understand the various methods of sterilisation and disinfection and its importance in dentistry • To understand the classification of microorganisms- bacteria, virus, fungus • State bacterial anatomy, physiology, growth and death • To demonstrate the pathogenesis of dental caries, host response and the virulence factors of bacteria • Demonstrate knowledge about general concept of virus with clinical importance • Knowledge about common fungal diseases of oral cavity • Knowledge about cross infections and nosocomial infections and methods to prevent them in dental practice • Understanding the role of various microorganisms in oral lesions and diseases (oral thrush) , other systemic and opportunistic fungi • To understand the concept, introduction of fungus with its clinical importance • Demonstrate knowledge about general concepts of immunology and its applications • To state culture media with sensitivity and its clinical importance • Knowledge about oral microbiology with clinical importance <p>Skill:</p>

			<ul style="list-style-type: none"> • Student should be able to follow proper aseptic techniques in dental practice • Should be able to collect samples from oral cavity and carefully transfer to the laboratory • To interpret microbiological and serological laboratory tests for diagnosis of disease • To apply microbiological knowledge in practicing of dental surgery to improve the oral and dental health of the patients. • To understand the general concepts of immunology and its applications, immunity-classification and difference • To define and classify hypersensitivity with mechanism and function • Knowledge about important respiratory virus with their pathogenesis, clinical importance and lab diagnosis
		<p>Pathology</p>	<p>Knowledge and Understanding:</p> <ul style="list-style-type: none"> • Understanding about causes and pathogenesis of diseases • Understanding about preventive aspects of diseases • To describe haematological diseases and haematological disorders • To interpret clinical pathological specimen to evaluate the diagnosis of disease • Demonstrate basic tissue changes in acute and chronic inflammation • Demonstrate understanding of healing after dental surgery (tooth extraction) and its complications • Understanding about mechanism of generalized oedema • Knowledge about stages of wound healing • Demonstrate principles of tissue preservation • State different diagnostic procedures of tumours

			<ul style="list-style-type: none"> • Knowledge about various hematologic disorders <p>Skill:</p> <ul style="list-style-type: none"> • The student should be able to identify and differentiate neoplastic and non- neoplastic lesions around the head andneck region • Advise appropriate investigations forcorrect diagnosis of disease To apply the knowledge acquired in pathology while practicing dentalsurgery • Identify acute, chronic and granulomatous inflammation • Identify granulation tissue under microscope • To know the procedure of sending a biopsy specimen to the laboratory andcytology • To identify common tumours and tumour like lesions of the oral cavity • To mention the importance of jaundicein dentistry • To define and classify diabetes mellitusand describe its complications • To perform and interpret Benedict's test • To know the importance of diabetesmellitus in dentistry • To interpret TC, DC, absolute values,ESR, platelet count, bone marrow examination, BT, CT and PT and determine its clinical significance
		<p>Pharmacology</p>	<p>Knowledge and Understanding:</p> <ul style="list-style-type: none"> • Understanding of the pharmacokinetics and pharmacodynamics of essential and commonly used drugs in dentistry • To understand the indications, contraindications, interactions and adverse reactions of commonly useddrugs in dentistry • To understand the principles underlyingthe

			<p>concepts of essential medicines</p> <ul style="list-style-type: none"> • To demonstrate knowledge and understanding of teratogenic medicines • To evaluate the ethical and legal issues involved in drug prescribing <p>Knowledge about geriatric pharmacology, treatment for medically compromised patients, pregnant women and common dental problems</p> <ul style="list-style-type: none"> • Knowledge about medical emergencies of relevance to dental practice like syncope, angina pectoris, myocardial infarction, cardiac arrest, hypertension, hypotension, acute allergic reactions/anaphylaxis, insulin shock/diabetic coma, asthma <p>Skills :</p> <p>The student should be able to</p> <ul style="list-style-type: none"> • Write a rational prescription • Able to execute Therapeutic decisionmaking • To define mouthwash and dentifrices, • Management of common dental infections • Management of dental pain • Proper use of local anaesthetic agents • Prescribing from essential medicine list • Management of shock • Understanding the drugs for medical emergencies in dental practice and management • State the indication, mechanism of action and side effects of chlorhexidine containing mouthwash • State and explain the uses of anticoagulant therapy • To take necessary action before giving dental treatment to a patient on anticoagulant therapy • Method of application and mechanism of action of anti-plaque agents
--	--	--	---

			<ul style="list-style-type: none"> • State the principles of cancer chemotherapy and the chemotherapeutic drugs • State the pharmacology of sialogogues and antisialogogues
		Dental Materials	<p>Knowledge and Understanding :</p> <ul style="list-style-type: none"> • To understand the physical, chemical, biological and mechanical properties of materials used in dentistry • Describe the proper handling and caring of materials • Knowledge about the selection of required instruments • To understand the toxic and side effects of the materials and protective measures to be taken • To understand the biocompatibility of the materials • To understand tarnish and corrosion and the preventive measures of the metallic made prostheses and restoratives used in oral cavity • Understand the criteria for selection and use of dental ceramics • To enumerate the composition, properties of different cements used in dentistry • Knowledge about setting mechanism of dental cements • Knowledge about classification and principles of cutting of polishing materials • Understanding about cast partial dentures • Knowledge about denture base materials, techniques of manipulation, maintenance and allergic reactions <p>Skill :</p> <p>The student should be able to</p> <ul style="list-style-type: none"> • To identify the materials used in dentistry • Selection of appropriate material for clinical

			<p>use</p> <ul style="list-style-type: none"> • Proper use of instruments • Manipulate different types of cements • Manipulate gypsum products • Manipulate amalgam • Manipulate acrylic resin and construction of denture base • Manipulate the dental materials perfectly without loss of its properties.
		Preclinical Conservative Dentistry	<p>Knowledge and Understanding:</p> <ul style="list-style-type: none"> • Understanding of the treatment procedures carried out in conservativedentistry • Knowledge about the composition and properties of restorative materials <p>Skills :</p> <ul style="list-style-type: none"> • Preparation of different types of cavities in plaster models and simulation phantom heads. • Identification of different types of restorative materials • Manipulation for the various types of restorative materials like zinc oxide eugenol cement, zinc phosphate cement • Manipulation of light cured composites resins • Manipulation of calcium hydroxide To list the dentin bonding agents and their mechanism of adhesion • To describe the pit and fissure sealants
		Preclinical Prosthodontics, Crown and Bridge	<p>Knowledge and Understanding:</p> <ul style="list-style-type: none"> • Knowledge about the structure and functions of teeth, jaws and its physiological importance in the physical and social wellbeing of a patient • Understanding about teeth occlusion • Knowledge about abnormalities in occlusion • Knowledge about sequelae following discrepancies in occlusion following improper

			<p>fabrication of dentures</p> <ul style="list-style-type: none"> • Demonstrate understanding about the properties, composition of elastomeric impression materials <p>Skills:</p> <ul style="list-style-type: none"> • Fabrication of removal partial dentures • Fabrication of fixed partial dentures • To understand the casting procedure • Prepare wax pattern • To describe the importance, properties of the important base metals used in dentistry • Manipulation of base plate wax to make a special tray/temporary base • Manipulation of modeling wax to make a wax pattern • Technique to construct denture base using acrylic resin • Technique to repair fractured denture / model • Manipulation of alginate and taking impression of an edentulous model
	Third year	General Medicine	<p>Knowledge and Understanding :</p> <ul style="list-style-type: none"> • Understanding about the various manifestations of common diseases • To understand the basic principles of history taking and clinical examination • Knowledge to correlate the clinical symptoms and physical signs to make a provisional diagnosis of common diseases and suggest relevant investigation <p>Skill :</p> <ul style="list-style-type: none"> • To elicit required history from the patient, • To develop communication skill so as to establish effective communication with the patients and with scientific community • Able to record arterial pulse, blood pressure, temperature and respiration • Able to perform CPR

			<ul style="list-style-type: none"> • Diagnosis of common clinical problems • To interpret common haematological report, X-ray chest, ECG, CT scan • Writing prescriptions To acquire skill in performing intramuscular and injections • To follow professional ethics during clinical practice
		General Surgery	<p>Knowledge and Understanding:</p> <ul style="list-style-type: none"> • Knowledge about common surgical conditions of head and neck • Knowledge about the appropriate radiological and haematological investigations • Knowledge about the various benign and malignant lesions of head and neck region. • To learn the basic surgical principles <p>Skills :</p> <ul style="list-style-type: none"> • To perform proper general, local and systemic examination • To identify common surgical problems • Interpretation of investigational results of common surgical problems • To provide first aid with prompt referral of complicated patients • To know minor surgical procedures like abscess drainage, taking biopsy • To know about the universal precautions to be taken against HIV, Hepatitis

		Oral Pathology and Oral Microbiology	<p>Knowledge and Understanding:</p> <ul style="list-style-type: none"> • To know the basic mechanism of different types of diseases that involve the orofacial tissues • To know the oral manifestations of systemic and metabolic diseases • To know the use of oral histopathology, FNAC, cytological examination, frozen section and immunohistochemistry • Knowledge about common developmental disturbances of teeth and jaws • To know about developmental disturbances of oral soft tissues and paraoral tissues <p>Skills :</p> <ul style="list-style-type: none"> • Writing oral histopathology and requisition form • Handling and maintenance of microscope • Interpretation of pathological reports and data • Preservation of surgical specimen and preparation of fixative for surgical specimens in 10% formalin • Preservation of surgical specimens for Immunohistochemistry
	Final year	Oral Medicine and Radiology	<p>Knowledge and Understanding:</p> <ul style="list-style-type: none"> • To know the treatment plan and differential diagnosis of common infective and non-infective ulcers occurring in oral cavity • To describe the clinical features, histopathology and laboratory investigations for common infective and non-infective ulcers in oral cavity. • Knowledge about pathogenesis, clinical features and treatment of common autoimmune diseases of oral cavity • Knowledge about identification and differentiation between traumatic and various reactive lesions occurring in oral cavity

			<ul style="list-style-type: none"> • Knowledge about various effects of radiation in oral cavity Knowledge about common viral and bacterial diseases of salivary glands • Knowledge about causes and complications of xerostomia <p>Skills:</p> <ul style="list-style-type: none"> • Able to manage dental, non-dental pain, • Management of trigeminal neuralgia, facial paralysis • Management of autoimmune diseases of oral cavity • Management of leukoplakia and other premalignant lesions of oral cavity • Management of xerostomia • Ability to frame appropriate treatment planning • Ability to take intraoral periapical radiographs and interpret it • Ability to interpret Orthopantomogram
		<p>Conservative Dentistry and Endodontics</p>	<p>Knowledge and Understanding:</p> <ul style="list-style-type: none"> • To have theoretical knowledge about conservative dentistry and endodontics, in order to integrate between theory and practice • Knowledge about current concepts of operative and endodontic care • Knowledge about new concepts of aesthetic dentistry • Knowledge about dental radiology <p>Skill:</p> <ul style="list-style-type: none"> • The student should be able to demonstrate adequate diagnostic skills, restorative skills, endodontic skills, • Ability to perform manual skill and dexterity Communication skills to obtain a medical and psychosocial history • Ability to frame an effective treatment plan for individual patient

			<ul style="list-style-type: none"> • Skilled enough to work in a team and show professionalism • Ability to perform emergency pain management • Competent enough to practice Minimally Invasive Dentistry (MID) and Evidence Based Dentistry (EBD) with scientific understanding and thought.
		<p>Periodontology</p>	<p>Knowledge and Understanding :</p> <ul style="list-style-type: none"> • The student should be able to describe the background and scope of Periodontology • Knowledge about classification of periodontal diseases and framing of treatment plan as required • Knowledge about the prevention and progression of periodontal diseases • Knowledge about the basic tissues of periodontium, clinical features of healthy and inflamed gingival • Adequate knowledge about the etiology, pathophysiology, diagnosis, treatment planning of various periodontal diseases • Knowledge about the interrelationship between periodontal disease and systemic disease • Knowledge about the basic concepts and periodontal aspects of dental implants and management of periodontal health of implants <p>Skills:</p> <ul style="list-style-type: none"> • Skilled enough to diagnose and manage common periodontal diseases To develop attitude for further learning of subjects • To execute the basic principles of periodontal instrumentation • Competent enough to perform scaling, root planning, curettage with oral hygiene instructions with full aseptic precaution • To list and identify the basic

			<p>periodontal instruments</p> <ul style="list-style-type: none"> • To provide proper referral to specialist consultant • To apply the knowledge and understanding of prevention of periodontal diseases • To apply knowledge of Periodontology to integrate with multidisciplinary treatment approach
		<p>Prosthodontics and Crown and Bridge</p>	<p>Knowledge and Understanding:</p> <ul style="list-style-type: none"> • To understand the normal relations of human teeth and jaws in dentulous patients • To demonstrate knowledge about complete anatomy and physiology of complete or partial edentulous state. • Knowledge about articulation and concept of occlusion • Knowledge about stepwise process, finish and deliver of different prosthesis • To understand the concept of osseointegration and the value of implant-supported prosthodontic procedures • To understand the basic concepts of TMJ movements • To understand the basic principles of natural and artificial occlusion • To understand the basic principles of tooth preparation for construction of crowns • To understand the basic principles of diagnosis, treatment planning of maxillofacial defects <p>Skills:</p> <ul style="list-style-type: none"> • To handle various dental materials effectively • Competent to treat edentulous and partial

			<p>edentulous patients</p> <ul style="list-style-type: none"> • Skilled enough to treat maxilla-facial defect patient • To diagnose and refer patients requiring treatment • Ability to identify occlusal discrepancies and correct it appropriately • Skilled enough to perform construction of inlay, onlay, partial veneer crown and full veneer crown • Skilled enough to perform various impression techniques.
		<p>Oral and Maxillofacial Surgery</p>	<p>Knowledge and Understanding:</p> <ul style="list-style-type: none"> • To demonstrate knowledge about basic concepts in oral and maxillofacial surgery • Demonstrate the appropriate attitude to practice in oral and maxillofacial surgical field • Knowledge about diagnosis and effective management of common oral and maxillofacial problems • To understand the principles of management of major oral surgical problems • To value the ethical issues • To understand the principles of inpatient management <p>Skill:</p> <ul style="list-style-type: none"> • History taking and clinical examination of common disorders of oral and maxillofacial surgery • Competent enough to make appropriate decision based on risk benefit of maxillofacial surgery • To motivate and counsel the importance of regular oral health screening regarding oral cancer • Competent enough to perform basic surgical skills of common disorders of oral and maxillofacial surgery

			<ul style="list-style-type: none"> • To apply the basic principles of surgery like asepsis and hand scrub, care of the hospitalised patient. • Able to manage medical emergencies in dental office providing primary care • Ability to manage complications during operative and postoperative phase • Appropriate referral of high risk patients • Competent enough to carry out extraction of teeth under local anaesthesia and general anaesthesia • Able to perform biopsy, and other minor oral surgical procedures • To maintain high standard of professional ethics
		<p>Orthodontics and Dentofacial Orthopaedics</p>	<p>Knowledge and Understanding:</p> <ul style="list-style-type: none"> • Knowledge about the etiology, pathophysiology, principles of diagnosis and management of common dentofacial and orthodontic problems • To demonstrate basic knowledge and skill to examine, investigate and diagnose the patient's malocclusion for orthodontic treatment • To understand the basic concept of fixed orthodontic appliance • To understand the design, plan and fabrication of functional appliance • Understand the principles of cephalometric tracing <p>Skills:</p> <ul style="list-style-type: none"> • To identify and diagnose anomalies of dentition, occlusion, facial structures, and abnormal functional conditions (orthodontic patients) • Skilled enough to detect deviations of development of dentition, of facial growth, and occurrence of functional abnormalities • Skilled enough to identify pernicious oral habits that may lead to malocclusion • To evaluate the need for orthodontic

			<p>treatment</p> <ul style="list-style-type: none"> • To plan and execute interceptive orthodontic measures • Competent enough to convince the patient for specialised orthodontic consultation • To develop communicative skills with the patient regarding preventive, curative and rehabilitative orthodontic care • To formulate a treatment plan for simple type of malocclusions and execute • To outline the management protocol • To manage simple orthodontic problems • Skilled enough to insert and activate functional appliance • To identify normal and abnormal growth pattern of jaws and dentition • To identify the changes in face form and facial profile • To evaluate the psychological and social impact of abnormal growth and malocclusion
		<p>Pedodontics and Preventive Dentistry</p>	<p>Knowledge and Understanding:</p> <ul style="list-style-type: none"> • To demonstrate knowledge about diagnosis of dental diseases of paediatric patients • To demonstrate knowledge of relative analgesia • To understand the concept of fixed and removable space maintainer • Understanding about simple surgical procedures like excision of cyst, epulis and ranula <p>Skills:</p> <ul style="list-style-type: none"> • To identify primary dentition • To differentiate between primary and permanent dentition • To instill a positive attitude and behaviour in patients to maintain good health • To promote infant's and children's healthy

			<p>feeding practice</p> <ul style="list-style-type: none"> • To assess and refer paediatric patients to different specialities appropriately • To motivate and treat psychologically challenged paediatric dental patients To counsel and motivate children and parents about good oral hygiene and health • To do anterior striping and stainless steel crown • To interpret radiographs used in paediatric dentistry • To manage traumatised anterior segment of dentition • To apply pit and fissure sealants and fluorides • To manage different types of pulpal pathologies • To teach the pediatric patients about different brushing techniques • To diagnose, manage and refer patients with communicative disorders
		Public Health Dentistry	<p>Knowledge and Understanding:</p> <ul style="list-style-type: none"> • To demonstrate a complete understanding about the concepts of public health and primary healthcare and their delivery system in the community • To understand the different preventive measures to address the prevailing oral and dental problems in the community in each and every level • To describe the concept and methods of epidemiology to design simple research in dental background • To understand the concept of dental jurisprudence and address the legal issues in dentistry • Demonstrate knowledge of social and psychological pattern of disease causation and its management accordingly

			<p>Skills :</p> <ul style="list-style-type: none">• Competent to plan and conduct fieldsurvey properly• To interact with the community people about oral health status• Competent to work in primary healthcare settings• Act as oral health educator• Act as a social worker regarding establishing a good oral health status among the community people• To provide instruction about- brushing, flossing, interdental cleansing aid, mouthwash• To interpret research findings from published journals and articles• To promote health promotional materials such as poster, festoon, leaflet, handbill, banner etc.
--	--	--	---



PRINCIPAL
RAGAS DENTAL COLLEGE AND HOSPITAL
UTHANDI, CHENNAI-600 119.