

BASIC MEDICAL SCIENCES PRE-CLINICAL SKILLWORK

DEPARTMENT	PRE-CLINICAL SKILL WORK
ANATOMY	<ul style="list-style-type: none"> ▪ To locate various structures of the body and to mark the topography of the living anatomy. ▪ To identify various tissues under microscope. ▪ To identify the features in radiographs and modern imaging techniques. ▪ To detect various congenital abnormalities. ▪ Observation of dissected specimens and pro-sections ▪ Osteology ▪ Identification of histology slides.
PHYSIOLOGY	<ul style="list-style-type: none"> ▪ Conduct experiments designed for the study of physiological phenomena. ▪ Calculation of blood indices ▪ Determination of RBC count ▪ Determination of WBC count, ▪ Determination of DLC count ▪ Recording of blood pressure ▪ Auscultation of heart sounds ▪ Haemoglobin estimation ▪ Determination of Blood grouping ▪ Determination of Bleeding time and clotting time.
BIOCHEMISTRY	<ul style="list-style-type: none"> ▪ Introduction to lab procedures. ▪ Urine analysis. ▪ Introduction to clinical chemistry ▪ Estimation of blood urea ▪ Estimation of serum protein ▪ Estimation of blood sugar level ▪ Precipitation reaction of albumin, gelatin, peptone ▪ Estimation of serum creatinine ▪ Estimation of serum albumin ▪ Colorimeter ▪ Electrophoresis and chromatography. ▪ Glucose tolerance test.
PHARMACOLOGY	<ul style="list-style-type: none"> ▪ General Prescription writing ▪ To appreciate adverse reactions and drug interactions of commonly used drugs. ▪ Critically evaluate drug formulation and be able to interpret

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	<p>the clinical pharmacology of marketed preparations commonly used in dentistry.</p> <ul style="list-style-type: none"> ▪ Preparation of mouth wash, mouth Gargle, gum Paint and powders. ▪ Demonstration of common dosage form. ▪ Dental prescription writing for common oral discascs
GENERAL PATHOLOGY	<ul style="list-style-type: none"> ▪ Apply the scientific study of disease processes, which result in morphological and functional alterations in cells, tissues and organs to the study of pathology and the practice of dentistry. ▪ Practical work- Hb estimation, Blood grouping, abnormal urine analysis ▪ Determination of differential count ▪ Microscopic study of Pathological slides ▪ Examination of gross specimens.
MICROBIOLOGY	<ul style="list-style-type: none"> ▪ Understand the basis of various branches of microbiology and able to apply the knowledge relevantly. ▪ Understand and practice various methods of sterilisation and disinfection in dental clinics. ▪ Have a sound understanding of various infectious diseases and lesions in oral cavity. ▪ Simple staining, Gram staining and Acid fast Staining ▪ Albert stain, ziehl neelson staining
DENTAL MATERIALS	<ul style="list-style-type: none"> ▪ Preparation of cube, pyramid and other shapes with plaster. ▪ Manipulation of alginate, impression compound,. ▪ Silver amalgam and trituration. ▪ Manipulation of ZOE, Zinc phosphate and Glass ionomer cements. ▪ Manipulation of rubber base impression material.

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DENTAL PRE-CLINICAL SKILL WORK OF UG/PG STUDENTS.

DEPARTMENT	UG – PRE-CLINICAL	PG – PRE-CLINICAL
PRE-CLINICAL ORTHODONTICS	<ul style="list-style-type: none"> • Basic wire bending exercises • Discussion on clinical topics • Spotters 	<ul style="list-style-type: none"> • Basic wire bending exercise • Various orthodontic appliances • Soldering exercises • Welding exercises • Model analysis • Cephalometric analysis • Basics of clinical photography including digital photography
PRE –CLINICAL CONSERVATIVE DENTISTRY	<ul style="list-style-type: none"> • Identification and study of hand cutting instruments. • Identification and use of rotary cutting instruments in contra angled hand pieces (micromotor) • Cavity preparation (conservative and conventional) from class I to class VI on plaster models and on natural extracted teeth. • Exercises on phantom heads models (Typhodonts) including 	<ul style="list-style-type: none"> • Tooth carvings of all permanent teeth. • Cavity preparation from class I to class VI on typhodont teeth and extracted natural teeth. • Root canal therapy on extracted natural teeth. • Post and core procedures on extracted teeth. • Inlay tooth preparations with lab procedures • Crown preparations


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	<p>tooth preparation, base application, placement of matrix band and wedge followed by amalgam restoration</p> <ul style="list-style-type: none"> • Demo on polishing of restorations. • Manipulation of various cements and other dental materials. 	
PRE-CLINICAL PEDODONTICS AND PREVENTIVE DENTISTRY	<ul style="list-style-type: none"> • Behavioural management • Brushing techniques demonstration • Application of pit and fissure sealants –Demo • Demo on application of rubber dams. • Topical fluoride application • Demonstration of scaling 	<ul style="list-style-type: none"> • Teeth carvings of all deciduous teeth • Fabrication of Myofunctional appliances. • Soldering exercises • Welding exercises
DENTAL ANATOMY AND ORAL HISTOLOGY	<ul style="list-style-type: none"> • Basic carving of different shapes (cube and rectangles). • Permanent Teeth carvings on wax blocks • Age estimation on plaster casts of different age groups 	<ul style="list-style-type: none"> • Teeth carvings • Preparation of ground sections • Biopsy-Grossing, processing and staining.

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	<ul style="list-style-type: none"> • Identification of permanent and deciduous teeth. • Microscopic study of oral tissues. • Spotters • Developmental disorders on casts 	
PRE-CLINICAL PROSTHODONTICS	<ul style="list-style-type: none"> • Primary impressions of maxilla and mandible on metal dies. • Study of Anatomical landmarks. • Preparation of special trays (maxilla and mandible) in base plates and in self cured acrylic resin.. • Fabrication of occlusal rims. • Manipulation of various dental materials like dental plaster, impression compound. • Teeth arrangement in class I relation. • Repair of fractured dentures. 	<ul style="list-style-type: none"> • Construction of edentulous and dentulous trays. • Fabrication of occlusal rims. • Study of anatomical land marks • Primary impression taking on metal dies. • Beading and boxing • Space designer • Teeth arrangement in class I, II, III relations. • Cast partial dentures • Preparation of all crowns.


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