

#### **4.1.1.: LIST AND DETAILS OF FACILITIES AVIALABLE FOR TEACHING, LEARNING**

##### **A. ICT ENABLED ROOMS:**

Classrooms : 5

Seminar halls: 4

Auditorium: 1

##### **B.ICT Tools for teaching and learning:**

LCD projectors

Amplifiers

Noise reduction speaker surround system

Accessory tools like wireless keypad and mouse

Database management system – DRSR – JAPAR: web based online remote access software

Interactive tools like Google class rooms

Central library (OPAC and Autolib software systems )

##### **C.Facilities for clinical teaching & learning**

###### **Facilities available for U. G and P.G students:**

Training in Research Methodology, Biostatistics, Ethics Bioethics in Dentistry, Jurisprudence and Audits

Basic life support courses are conducted and certified by professional organizations.

###### **Facilities available for P. G students:**

Improving teaching skills by Journal or case presentations, Seminar presentations, symposiums, Interdepartmental meetings

Attending Dental education programs,Conferences( for scientific presentations) / workshops and hands on courses.

Rotation postings in other departments

###### ***Department of prosthodontics and Crown and bridge***

No. of dental chairs: 34 (U.G) and 11 (P.G) along with Implant room: 2

Availability of instruments and equipments;

Articulators – semi-adjustable with face bow: 3

Surveying Unit: 3 ( For Surveying of partially edentulous models and preparing modified master cast)

Ceramic lab: Fully programmable porcelain furnace with vacuum pump along with ceramic kit and Ceramic polishing kit

Chrome cobalt Lab: Plaster dispenser, Electro polisher, Pindex system, burn out furnace, sandblaster, Model trimmer, casting machine, dewaxing furnace, induction casting machine, spot welder with soldering attachment, steam cleaner, vacuum mixing machine, 24000 RPM Spindle grinder, wax heater, Full PKT set, Magnifying work with lamp, pre-heating furnace, die cutting machine and composite curing unit.

Implant Room: Dental Chair: 1,Ultrasonic cleaner, Physiodispenser, implant kit with implants and prosthetic components, Programmable auto clave, Surgical kit

#### I. Pre-clinical Lab facilities :

Pre clinical prosthodontics Lab:

Pre clinical lab trains students on making RPD , CD & FPD procedures with proper demonstrations by the staff, before they do it on patients

Equipments and instruments are available for 1.Preparation of special trays 2. Preparation of temporary and permanent denture bases 3. Preparation of occlusion rims 4. Orientation of occlusion rims on articulator 5. Arrangement of teeth 6. Processing of complete dentures and Prepare wax patterns for minimum of 3 unit fixed partial dentures and investing, casting and porcelain facing and for preparing Removable partial dentures

No. of work spots - Phantom Heads : 50

Pre-clinical work tables: 100

Working models for UG, P.G and department library are available

#### II. Clinical posting facilities :

Facilities available to learn preparation of Complete denture: Case history and Discussion with Instrumentation, Border molding with special tray, Master impression

Facilities available to learn preparation of fixed partial denture: Articulated Model and Instrumentation, Tooth preparation in Articulated artificial teeth, Cast partial denture Identification of Kennedys Class in RPD Elastomeric materials Semi Adjustable Articulators Mean Value and Hinge Articulators Face Bow ,Surgical Obturator Feeding Plate Abrasives and Polishing agents Acrylic ,Metal Ceramic ,Full metal Crowns and Bridges, Miscellaneous-like relines/overdenture/repairs of Maxillofacial Prosthesis. Learning use of Face bow and Semi anatomic articulator technique, Dental Implant placement.

#### **For Post graduates:**

Complete dentures: Arrangements in adjustable articulator, Various face bow transfer to adjustable articulators, Processing of characterized anatomical denture

Removable Partial denture Design for Kennedy's Classification (Survey, block out and design), Designing of various components of RPD , Wax pattern on refractory cast, Casting and finishing of metal frameworks, acrylisation on metal frameworks

Fixed Partial Denture preparation like FVC for metal, ceramic, Porcelain jacket crown, Acrylic jacket crown, PFM crown, 3/4th (canine, premolar and central), 7/8th posterior 8. Proximal half crown, Inlay, Onlay, Laminates.

Preparation of different die system, Fabrication of wax pattern by drop wax build up technique, Pontic design in wax pattern, Fabrication of metal frameworks, Fabrication of crowns, Laminates ,Preparation for composites

Other exercise like TMJ splints, Anterior disclusion appliances, Chrome cobalt and acrylic resin stabilization appliances, Modification in accommodation in irregularities in dentures, Occlusal splint, Periodontal splint, Precision attachments – custom made, Over denture coping, Full month rehabilitation and TMJ appliances – stabilization appliances

Inter departmental works like Maxillo facial prosthesis and Implant supported prosthesis

### ***Department of Conservative dentistry and Endodontics***

No. of dental chairs: 34 (U.G) and 11 (P.G)

Pre clinical Conservative and endodontics Lab:

Ceramic lab: Fully programmable porcelain furnace with vaccum pump along with ceramic kit and Ceramic polishing kit

Chrome cobalt Lab: Plaster dispenser, Electro polisher, Pindex system, burn out furnace, sandblaster, Model trimmer, casting machine, dewaxing furnace, induction casting machine, spot welder with soldering attachment, steam cleaner, vacuum mixing machine, 24000 RPM Spindle grinder, wax heater, Full PKT set, Magnifying work with lamp, pre-heating furnace, die cutting machine and composite curing unit.

#### I. Pre-clinical Lab facilities :

Pre clinical lab trains students for Access Cavity preparation , restorations on dummy models

No. of work spots - Phantom Head table : 12

Pre-clinical work tables (Phantom mannequin's): 50

Working models for UG, P.G and department library are available

#### II. Clinical posting facilities :

Equipments and instruments are available for both pre clinical and clinical procedures like - Excavation of Deep Caries, Indirect Pulp capping & Direct Pulp capping ,Pulpotomy, Access Cavity preparation for Silver Amalgam like Class I, II , Class III preparation for tooth Coloured Material ,Class V Preparations ,Inlay Preparation, Root canal treatment for anterior tooth ,Restoration and carving, Restoration of extensively mutilated teeth, Treatment of discoloured Vital and non-vital teeth (bleaching), Management of pulpless, single-rooted teeth without periapical lesion , Isolation techniques like rubber dam placement, Management of acute dento alveolar infection and Non-surgical management of traumatized teeth

Demonstration of procedures like ,Rotary endodontics , RVG , Thermoplasticized gutta percha ,Rubber dam application ,Bleaching of vital/non vital teeth,Cast post ,Diastema closure, Rubber base impression.

Availability of Equipments like Glass bead sterilizer, Mechanized rotary devices, Digital pulp tester, 4<sup>th</sup> generation apex locator, Anthogyr hand piece along with other types of airotor and micromotor handpieces and torque control handpieces, amalgamator, LC unit, autoclave for handpiece sterilization and suction apparatus.

Advanced equipments like laser therapy, Magnification loupes, RVG, Operating microscope, endosonic handpieces and surgical endo kits

**For Post graduates:**

Cavity preparation, Inlay and onlay on molars and premolars, Casting procedures, Amalgam cavity preparation, Pin retained amalgam on molar teeth, Post and core build up, Full crown preparations, Veneers, Composite inlay and Full tooth wax carving

Composite restorations, GIC Restorations, Complex amalgam restorations, Composite inlay + veneers (direct and indirect), Ceramic jacket crowns, Post and core for anterior teeth, Bleaching vital, Non vital, RCT Anterior, Endo surgery – observation and assisting.

Ceramic jacket crowns, Post and core for anterior and posterior teeth, Cast gold inlay, Other special types of work such as splinting - Reattachment of fractured teeth etc.

Root canal treatments, Endo surgery performed independently and Management of endo - Perio problems

***Department of Oral and maxillofacial surgery:***

No. of dental chairs: 35 (U.G) and 11 (P.G)

Availability of instruments and equipments like

Formalin Chamber, pulse oximeter, suction apparatus, Oxygen cylinder with mask, Surgical straight and contra-angle handpiece, fumigator, Otseotome, disimpaction forceps, zygomatic elevators, tessiers retractor, illac crest retractor, Doyens rib raspatory set etc.,

Advanced equipments like, Physiodispensor, Oscillating saw, Implant kit, dermatome, Piezo- ultrasonic surgical system, Dental loupes,

**For Under graduates:**

Clinical posting facilities :

Case history taking, Examination of the patient,

Equipments and instruments are available for clinical procedures like Recording blood pressure, Use of different instruments in Oral & Maxillofacial surgery, Various local anaesthetic injection techniques on patients, Extraction of mobile and firm teeth, Trans-alveolar extraction of root stumps, Surgical removal of Simple impacted teeth, Management of dento-alveolar fractures with arch bar fixation, eyelets and inter-maxillary fixations., Training in basic life support skills, IM & IV Injection techniques Cysts enucleations, Incision and drainage, Alveoloplasties, Biopsies & Frenectomies, etc.

For Demonstration: Trans-alveolar method of extraction with suturing, Management of dento-alveolar fractures with arch bar fixation, eyelets and inter-maxillary fixations, Major surgical procedures under general anaesthesia, Handling medical emergencies, CPR and basic life support

The Internees shall have 15 days posting in emergency services of a dental/general hospital with extended responsibilities in emergency dental care in the wards. During this period they shall attend to all emergencies under the

direct supervision of oral surgeon during any operation. 1. Emergencies. (i) Toothache; (ii) trigeminal neuralgia; (iii) Bleeding from mouth due to trauma, post extraction, bleeding disorder or haemophilia; (iv) Airway obstruction due to fracture mandible and maxilla; dislocation of mandible; syncope or vasovagal attacks; Ludwig's angina; tooth fracture; post intermaxillary fixation after general Anaesthesia. 2. Work in I.C.U. with particular reference to resuscitation procedures. 3. Conduct tutorials on medico-legal aspects including reporting on actual cases coming to casualty. They should have visits to law court

#### **For Post graduates:**

Attending Operation theater postings and medical college postings (Emergency care, General medicine, General surgery/anesthesia, Ophthalmology, Neurology, ENT, Orthopaedic and oncology)

Post-operative care - concept of recovery room care, Airway management, Assessment of Wakefulness, management of cardio vascular instability in this period, Criteria for shifting to the ward, pain management

Minor OT facilities : Injection I.M. and I.V., Minor suturing and removal of sutures, Incision & drainage of an abscess, Surgical extraction, Impacted teeth, Pre prosthetic surgeries like corrective procedures, ridge extension, ridge reconstruction, OAF closure, Cyst enucleation, Mandibular fractures, Peri-apical surgery, Infection management, Biopsy procedures, Removal of salivary calculi, Benign tumors, mid face fractures, Implants, Tracheotomy, Skin grafts, Orthognatic surgery, Harvesting bone & cartilage grafts, T.M. Joint surgery, Jaw resections, Onco surgery, Micro vascular anastomosis, Cleft, lip & palate, Distraction osteogenesis, Rhinoplasty, Access osteotomies and base of skull surgeries.

Museum and Working models for UG, P.G and department library are available

#### ***Department of Orthodontics:***

No. of dental chairs: 18 (U.G) and 11 (P.G)

Availability of instruments and equipments like

Anatomical articulators with face bow attachments, DSLR camera, Electro polisher, Hydrosolder units, Micromotor sets, Mini Implant kit, L C unit, OPG with Cephalostat, Plaster dispensers, Spot welders, soldering torches, Vacuum/pressure moulding unit, vacuum mixtures etc.,

#### Pre-clinical Lab facilities :

Pre clinical lab trains students on making of Laboratory techniques including wire-bending for removable appliances (Straightening of wire, making of labial bow and split labial bow Robert's retractor Construction of clasps, springs, Retractors, habit breaking appliances).

Demonstrating the exercises and guide students to understand the properties of the components, their use and method of activating and adjusting them when incorporated in the orthodontics appliances.

#### Clinical posting Facilities;

To learn about soldering and processing of myo-functional appliances. Making of bands, bonding procedures and wire insertions. Use of extra oral anchorage and observation of force values and Retainers. Cold-cure and heat-cure acrylicisation of simple Orthodontics appliances.

**For Post graduates:**

Equipments and instruments are available for Pre clinical procedures like General wire bending exercises to develop the manual dexterity, Clasps, Bows and springs used in the removable appliances, Soldering and welding exercises, Fabrication of removable habit breaking, mechanical and functional appliances, also all types of space maintainers and space regainers, Bonwill Hawley ideal arch preparation, Construction of orthodontic models trimmed and polished preferably as per specifications of Tweed or A.B.O, Cephalometric tracing and various Analyses, Fixed appliance typhodont exercises like Standard Edgewise / Begg technique or its derivative / Straight wire etc., Typhodont exercise like Band making, Bracket positioning and placement, Clinical photography, Computerized imaging, Preparation of surgical splints, and splints for TMJ problems, Handling of equipments like vacuum forming appliances and hydro solder etc

Equipments and instruments are available for clinical procedures like Non- Appliance Exercises like, labial bows, Clasps, Springs, Retractors, Habit breaking appliance, Oral screen and double oral screen, Lip bumper, Splint for Bruxism, Catalans appliance, Activator, Bionator, Frankel-FR 2 appliance, Twin block, Lingual arch, TPA, Quad helix, Bihelix, Utility arches, Pendulum appliance, Soldering and Welding, study model preparation, model analysis, cephalometrics, basics of clinical photography including digital photography, light wire bending exercises for the begg technique

Museum and Working models for UG, P.G and department library are available

***Department of Oral medicine and radiology:***

No. of dental chairs: 12 and radiology: 2 no.

Availability of instruments and equipments like

Digital camera, Intraoral camera, Micromotor with contraangled handpiece and airoter, Digital pulp tester, Ultrasonic cleaner, Lead apron, Lead gloves, film dryer, Lead screen

Advanced equipments like, Digital OPG with cephalometry, digital printer, automatic peri apical X-ray developer

**Clinical posting facilities :**

Facilities available to Identify precancerous and cancerous lesions of the oral cavity and refer the patients to the concerned speciality for their management .laboratory investigation and Interpretation of their results are also done

Guiding the patients by creating awareness about complications that can arise while treating systemically compromised patients

Facilities to take intra-oral radiographs and interpret the radiographic findings and various extra-oral radiographic procedures, TMJ radiography and Sialography

**Clinical posting Facilities;**

Orientation Postings in Oral Medicine and Radiology: Introduction to clinical armamentarium, Demonstration of Patient registration, Orientation and visit to paramedical departments like Laboratory and Pharmacy Writing of case sheets. Methods of arriving at Diagnosis, Treatment planning, Follow up Demonstration of Intraoral, extraoral and Digital radiography Training in Radiation protection methods and Interpretation of Pathology

Know about Standardized examination of patients and Exposure to clinical, pathological laboratory procedures and biopsies

Effective training in taking of intraoral and extraoral Radiographs and Cephalogram

Working models for UG and department library are available

***Department of Periodontics:***

No. of dental chairs: 34

Availability of instruments and equipments like

Ultrasonic Scaler sets, Ultrasonic Cleaner Unit, Light Cure Unit, Surgical micro motor unit with straight and contra angle handpieces, airtor, Autoclave, suction apparatus,  
Advanced equipments and instruments like Magnification Loupes(3.5x)+L.E.D Light with Microsurgical instrument set, Laser Unit – Picaso, Electrocautery Unit, digital Pulp Tester, Air Polisher, Sonic Tooth Brush, Water Pik Irrigation Unit, (Hufriedy)Implant Maintenance Kit, (Hufriedy)Arkansas Stone Sharpening Kit

Pre- clinical learning facilities like,

Equipments and instruments are available for pre-clinical procedures like Hand scaling Instrumentation and suturing techniques on the typhodont models and Fabrication of splints etc.,

Demonstration of hand scaling instrumentation, Ultrasonic scaling and polishing and periodontal surgical procedure and Maintenance therapy, Radiographic interpretation, chair side clinical diagnosis

Clinical posting Facilities;

Equipments and instruments are available for clinical procedures like splinting, Flapoperation , Sonic and Ultrasonic scaling procedures, RootPlanning, Curretage , Gingivectomy and plasty, Perio-Endo cases, Local drug delivery systems, Host modulation therapies, coronoplasty, Resective osseous surgeries, Regenerative Periodontal therapies, Periodontal plastics surgeries and correction of mucogingival deformities, Implant maintenance therapy

Advanced periodontal therapies like Laser therapy, Esthetic Therapy , Microsurgical periodontal therapy, Electrosurgical periodontal therapy and Interdepartment therapies like crown lengthening, Vestibuloplasty, Transcrestal fibrotomy etc.,

Educating patients about oral hygiene measures like tooth brushing, flossing, Preventive measures.

Working models for UG and department library are available

***Department of Pedodontics and preventive dentistry:***

No. of dental chairs: 15

No. of Pediatric dental chair : 5

Availability of instruments and equipments like

Apex locator, amalgamator, anthogyr handpiece, ultra sonic scaler, Ultrasonic Cleaner Unit, Light Cure Unit, Surgical micro motor unit with straight and contra angle handpieces, airtor, Autoclave, suction apparatus, plaster dispenser, rubber dam kit, dental lathe, soldering torch etc.,

Advanced equipments and instruments like Pressure moulding machine, Radiovisuography, Automatic developer, magnifying loupes, Steam cleaner, welder,

Pre-clinical Lab facilities :

Carving of all deciduous teeth, Basic wire bending exercises, Fabrication of a. Maxillary bite plate / Hawley's, Maxillary expansion screw appliance, Canine retractor appliance, habit breaking appliances ,

Demonstration of Removable type, Myo functional appliance, Fabrication of space maintainers, Distal shoe appliance Restorations - Class I & II., Preventive measures like Oral Prophylaxis Fluoride applications, Extractions.

Clinical posting Facilities;

Educating patients about oral hygiene measures like tooth brushing, flossing, Preventive measures like Oral Prophylaxis.

Equipments and instruments are available for clinical procedures like Fluoride applications, Extractions, Education & motivation of the patients using disclosing agents, Topical application of fluorides including varnish, Restorative procedures of carious deciduous teeth in Children, Pulpotomy, Pulpectomy, Fabrication and insertion of space maintainers, Oral habits breaking appliances, pit and fissure sealants and conscious sedation

Working models for UG and department library are available

***Department of Public health dentistry:***

No. of dental chairs: 16

In Rural Health centres - No. of Dental chairs : 2

Mobile dental van - No. of dental chairs: 1

Availability of instruments and equipments like

Ultra sonic scaler, Ultrasonic Cleaner Unit, Light Cure Unit, Micro motor unit with straight and contra angle handpieces, airtor, Autoclave, suction apparatus, LC unit

Equipments and instruments are available for clinical procedures like pit and fissure sealants, fluoride gel application procedure, A. R. T., Comprehensive health care etc.,

Complete Case History Indices like Oral -hygiene indices simplified and original- Green and Vermilion ,Plaque index by Silness and Loe ,Gingival Index by Loe and Silness etc.,. for Health Education :Making of Audio visual aid , a health talk and Practical works like Pit and fissure sealant, Topical fluoride application

Conducting a short term epidemiological survey in the community, or in the alternate, participate in the planning and methodology. Conduction of oral health education programmes ,Preparation of Health Education materials ,Exposure to team concept and National Health Care systems: a) Observation of functioning of health infrastructure. b) Observation of functioning of health care team including multipurpose workers male and female, health educators and other workers. c) Observation of atleast one National Health Programme. d) Observation of interlinkages of delivery of oral health care with Primary Health care. Mobile dental clinics, as and when available, should be provided for this teachings.

Museum, Working models for UG and department library are available



Dental museum facilities: As a learning resource for students and an resource for researchers to promote dental health awareness

The department of public health dentistry has a full – fledged dental museum. This area is used to council and motivate the patient regarding their oral health related problems. School students, accompanying persons and patients during their waiting time usually visit our dental museum and are been benefited daily.

Educating the population about dental health issues is an important part of keeping people healthy and well. Hence our **goal** is to “Create and encourage the visitors to understand the importance of oral health in an entertaining way. We hope that learning with fun will inspire people to make healthy choices about their oral health”.

#### **List of items displayed in our dental museum**

1. Audio visual aids like television: Educative videos regarding various dental disease were displayed to patients.
2. Patient educative tooth model for patient education
3. Model depicting adverse effect of tobacco cultivation
4. Various models showing adverse effect of tobacco smoking
5. Charts regarding dental implant
6. Food pyramid model
7. Charts regarding dietary habits
8. Charts regarding adverse effect of alcohol
9. Charts regarding tooth fractures and its managements
10. Charts regarding dental hyper-sensitivity

#### ***Department of Oral and maxilla facial pathology:***

No. of dental chairs: 2

Available work spots: 100

Availability of instruments and equipments like

Monocular illuminated microscope, Binocular microscope, binocular microscope with camera eye piece, Dissection microscope, Tissue block cabinet, tissue flotation bath, autoclave, paraffin wax bath, Colorimeter, slide warming table, digital camera etc.,

Advanced equipments and instruments like trinocular microscope with digital camera, Rotary semi automatic microtome, Centrifuge, Incubator with digital temp. Controller

#### Pre-clinical Lab facilities :

U.G. lab has a museum covering a wide range of specimens, A.V. room with L.C.D projectors, and a contemporary histopathology lab, a microscope section with illuminated monocular and binocular microscopes, and trinocular microscope with LCD projection

No. of microscopes for students training : 40

Hematology lab facilities:

Equipments and instruments are available for laboratory investigations like Blood investigations, Biopsy, FNAC procedures and Histopathological slides of relevant diseases ( along with H & E staining methods, specials stains like PAP, PAS staining procedures)

Demonstrations of individual tooth carving and haematological exercises performing basic haematological investigations like Hb estimation, Bleeding and clotting time. Collection of cytological smear for Histo pathological examination.

Laboratory facilities:

We have advance Research Microscope with conventional, polarising, dark field modes and a camera to photograph the slides, which can be mailed to the clinicians and can be stored for the purpose of future reference. Based on our report, treatment for the patient is decided. The lab is also equipped with micrometry devices for carrying out research which require measurements. Colorimeter device which is available in the department is employed in regular blood investigations and also for research purposes to estimate the serum, salivary levels of various components.

Museum , Working models for UG and department library are available