



AMRITA
VISHWA VIDYAPEETHAM

School of
Dentistry

MASTER OF DENTAL SURGERY (MDS)- Prosthodontics and Crown & Bridge (MDS.PCB)

(As per the Regulations of Dental Council of India)



Our Inspiration



H.H. Mata Amritanandamayee Devi
Hon. Chancellor, Amrita Vishwa Vidyapeetham

PROGRAM OUTCOMES

The program outcomes of MDS Prosthodontics and Crown & Bridge may be grouped under three main heads: Knowledge, Skill and Attitude

. KNOWLEDGE:

At the end of the three year training program, the student needs to

- To achieve knowledge and skill in theoretical and clinical laboratory, attitude, communicative skills and ability to research with understanding of social, cultural, education and environment background of the society.
- To have acquired adequate knowledge and understanding of applied basic and systematic medical science knowledge in general and particular to head and neck.
- To provide Prosthodontics therapy for patients with competence and working knowledge with understanding of applied medical behavioral and clinical science that are beyond the treatment skills of the general BDS graduate and MDS graduate of other specialities to demonstrate evaluative prevention, treatment after care referral to deliver comprehensive care to patients.

SKILLS

- The candidate should be able to examine the patients requiring Prosthodontic therapy, investigate the patient systematically, analyze the investigation results, radiography, diagnose the ailment, plan a treatment , communicate it with the patient and execute it.
- Understanding the prevalence and prevention of diseases of craniomandibular system related to Prosthetic dentistry.
- Should be able to demonstrate the clinical competence necessary to carry out appropriate treatment at higher level of knowledge, training and practice skills currently available in their specialty area.

- Identify target diseases and awareness amongst the population for Prosthodontic therapy.
- Perform clinical and laboratory procedure with understanding of biomaterials, tissue conditions related to prosthesis and has competent dexterity and skill for performing clinical and laboratory procedures in fixed, removable, implant and maxillofacial, TMJ, and esthetics Prosthodontics.
- Laboratory technique management based on skills and knowledge of Dental materials and dental equipment and instrument management.

Attitudes

At the end of the three-year training, the student shall

- Adopt ethical principles in all Prosthodontic practice. Professional honesty and integrity are to be fostered. Treatment to be delivered irrespective of social status, caste, creed or religion of patient.
- Be willing to share the knowledge and clinical experiences with professional colleagues.
- Be willing to adopt new methods and techniques in prosthodontics from time to time based on scientific research , which is in patient's best interest.
- Respect patient's rights and privileges including patient's right to information and right to seek second opinion.

PROGRAM SPECIFIC OUTCOMES

A candidate undergoing training for the MDS program in Prosthodontics and Crown & Bridge, shall, at the end of the three year training, inculcate the following specific skills:

- The candidate should be able to restore lost functions of stomatognathic system namely mastication, speech, appearance and psychological comforts. By understanding biological, biomedical, bioengineering principles and systemic condition of the patient to provide a quality health care of the craniofacial region.
- The candidate should be able to interact with other specialties including medical specialty for a planned team management of patients for a craniofacial and oral acquired and congenital defects, temporomandibular joint syndromes, esthetics, Implant supported Prosthesis and problems of Psychogenic origin. To understand demographic distribution and target diseases of Cranio mandibular region related to Prosthodontics including crown & bridge and implantology.

EVALUATION AND GRADING SYSTEM

SCHEME OF EXAMINATIONS

PART I MDS EXAMINATIONS

The DCI, in its revised curriculum, has introduced a University level Examination at the end of the First year of the MDS course, from 2018-2019. As per this curriculum, “the University shall conduct the Part I MDS Examination in Applied Basic Sciences at the end of the first academic year. This shall consist of One Theory Written Paper of three hours duration, and shall contain ten questions, each carrying ten marks each. The answer sheets shall be valued by one External Examiner and one Internal Examiner from the concerned specialty”.

1. At the end of the 1st academic year (on completion of 12 months after the start of the MDS course), the University shall conduct the Part I MDS Examinations in Applied Basic Sciences, notification for which shall be issued by the Examination Control Division (ECD) of the University two months prior to the date of conduct of these Examinations.

2. As part of the **eligibility criteria** to appear for the Part I MDS Examinations, each MDS student shall have secured a **minimum of 80% attendance** in the first year of the MDS course, and shall have completed all the Pre-clinical work/exercises or any such course work, as mandated by the DCI, in its Modified Regulations (2017) or by the Head of the concerned Department /Principal of the Institution. The Principal shall send a list of students eligible to appear for the Part I MDS Examinations, to the ECD, at least 2 weeks prior to the start of the Examinations, so as to enable the University to issue hall tickets to eligible candidates

3. The Part I MDS Examinations in **Applied Basic Sciences** shall consist of *one (1) Theory Written Paper*, of three (3) hours durations, for a total of one hundred (100) marks. The Theory Written paper shall have a total of ten (10) questions, each carrying 10 marks. The single paper carrying a total of 100 marks, can comprise varied types of questions that could help assess the knowledge of the candidates in a better manner.

4. A grand viva voce on the topics covered for the Theory Examinations can be conducted by the External and Internal Examiners appointed by the University for paper Evaluation. This will impart a better value and credibility to the Part I Examination system. The Viva voce can be conducted in the respective Departments of the Dental School, on the same day as notified by the University for evaluation of the Theory answer sheets.

5. The University can appoint as Question paper setters for the Part I MDS examinations, those Examiners from the concerned specialty, who fulfill the same general criteria laid down by the DCI, to qualify as Examiners for the Part II MDS Examinations. The Examiners may take care to set the questions which apply to the Basic Science topics in their concerned specialty, as mandated in the syllabus for the same by the DCI.

6. The candidates need to secure 50% marks separately for theory written and Grand viva to be declared '**Passed**' for the Part I MDS Exams. **Candidates who have failed in the Part I MDS Examination**, will have a chance to appear for the supplementary Examinations that shall be conducted by the University six months after the conduct of the Regular Examinations. To become eligible to appear for the Part II MDS Examinations at the end of the third year of the course, the candidate shall have passed the Part I Examinations at least 6 months prior to the Part II Examinations. There shall be *NO revaluation of the answer sheets* of the Part I MDS Examinations.
7. **The syllabus for the Part I MDS Examinations** shall be according to that specified by the DCI for each Specialty in its MDS Course Regulations, 2017.

Part II MDS Examinations:

1. Shall be conducted at the end of three years of completion of the MDS course. Notification for these Examinations shall be given by the ECD three months prior to the actual dates of the Examinations.
2. Every MDS student shall submit to the University (ECD) four printed copies of the completed **Dissertation work** duly signed and approved by the Guide/HOD, through the Principal, six months prior to the scheduled date of Examinations. *Acceptance of Dissertation by all the appointed Examiners is a mandatory pre-requisite to enable the candidate to become eligible to appear for the subsequent Part II MDS Examinations.*
3. Hall tickets shall be issued to the candidates for the Part II MDS Examinations, based on: (a) Acceptance of Dissertations by the appointed Examiners, (b) Report of eligibility of candidates from the Principal, after taking into account the completion of the required quantum of work in each specialty and (c) a minimum of 80% total attendance for each candidate.
4. There shall be *three (3) Theory Written Papers, followed by the Practicals and Viva-voce.*
5. Each **Theory Written Paper** (Paper I, II & III) will have the syllabus and contents, as prescribed in the MDS Course Regulations, for each specialty. The nomenclature of each paper for each specialty will also be in accordance with these Regulations. Each paper shall be of three hours durations, and

maximum marks of One hundred (100). For Papers I and II, there shall be two essay questions, each carrying twenty five (25) marks, and five (5) short questions, each carrying ten (10) marks. For Paper III, there shall be Three (3) Essay questions of which the candidates need to answer any two (2), carrying 50 marks each. Each paper shall be of 3 hours duration.

Paper I: Removable Prosthodontics and implant supported prosthesis (Implantology), Geriatric dentistry and Cranio facial Prosthodontics.

Paper II: Fixed Prosthodontics, occlusion, TMJ and esthetics.

Paper III : Essay

The topics assigned tom the different papers are generally evaluated under those sections. However a strict division of the subject may not be possible and some overlapping of topics is inevitable. Students should be prepared to answer overlapping topics.

B. Practical / Clinical Examination : 200 marks

Examinations shall be for three days. If there are more than 6 candidates , it may be extended for one more days. Each candidate shall be examined for a minimum of three days, six hours per day including viva voce.

1.Presentation of patients and recorded during their 3 years training period.

- a . C.D -1 marks
- b. R.P.D -2 marks
- c. F.P.D including single tooth and surface restoration - 2 marks
- d. I.S.P - 5 marks
- e. Occlusal rehabilitation - 5 marks
- f. T.M.J - 5marks
- g. Maxillofacial Prosthesis - 5 marks

2. Present actual treated patients C.D. Prosthesis and Insertion 90 Marks

- 1. Discussion on treatment plan and patient review 10 Marks
- 2. Tentative jaw relation records 5 Marks
- 3. Face Bow- transfer 5 Marks
- 4. Transferring it on articulators 5 Marks

- | | |
|--|----------|
| 5. Extra oral tracing and securing centric and protrusive/ lateral. | 25 Marks |
| 6. Transferring on articulator | 5 Marks |
| 7. Selection of teeth | 5 Marks |
| 8. Arrangement of teeth | 15 Marks |
| 9. Waxed up denture trial | 10 Marks |
| 10. Fit, insertion and instruction of previously processed characterized,-
Anatomic complete denture prosthesis | 5 Marks |
- All steps will include chairside, lab and viva voce

3. Fixed Partial Denture 50 Marks

- | | |
|---|----------|
| a. Case discussion and selection of patients for F.P.D. | 5 Marks |
| b. Abutment preparation isolation and fluid control | 25 Marks |
| c. Gingival retraction and impressions | 10 Marks |
| d. Cementation of provisional restoration | 10 Marks |

4. Removable Partial Denture 35 Marks

- | | |
|--|----------|
| a. Surveying and designing of partial dentate cast | 10 Marks |
| b. Discussion on components and material section –
Including occlusal scheme. | 15 Marks |

C. Viva Voce: (100 Marks including 20 for Pedagogy)

All examiners will conduct viva-voce conjointly on candidate's comprehension, analytical approach, expression, interpretation of data and communication skills. It includes all components of course contents. It includes presentation and discussion on dissertation also.

Pedagogy Exercise: (20 marks)

A topic be given to each candidate in the beginning of clinical examination. He/ she is asked to make a presentation on the topic for 8-10 minutes.

MARKS DISTRIBUTION

Part I Applied Basic Sciences Examination	Maximum Marks	Marks required for Pass
Theory Written Exam	100	50 out of 100
Grand Viva	50	25 out of 50
Part II Examinations		
Theory Written Exams (3 papers)	300 (100 marks each)	150
Practical and Viva-voce	300 (200 for Practicals, 80 for Grand Viva, 20 for Pedagogy)	150
Total for Part II Exams	600 (300 + 300)	300

COURSE DETAILS

Sl#	COURSE NAME	COURSE CODE
1	Applied Basic Sciences	MPRO1
2	Removable Prosthodontics and Implant supported prosthesis, Geriatric Dentistry and Craniofacial Prosthodontics	MPRO2
3	Fixed Prosthodontics, occlusion, TMJ and esthetics	MPRO3
4	Recent Advances	MPRO4

COURSE OUTCOMES

APPLIED BASIC SCIENCES (MPRO1)

Course Outcomes
CO1: Obtain sound knowledge of basic sciences in relation to Prosthodontics and apply the same in diagnosis and treatment planning
CO2. To have acquired adequate knowledge and understanding of applied basic and systematic medical science knowledge in general and particular to head and neck..
CO3. Knowledge on human anatomy, embryology, histology, applied in general and particular to head and neck, physiology & Biochemistry, Pathology and microbiology , virology, Health and diseases of various systems of the body (systematic) principles in surgery and medicine, Pharmacology , Nutrition , behavioral Science, Age changes, genetics, Immunology, Congenital defects and syndromes and Anthropology, Bioengineering, Bio-medical and Biosatistics

Removable Prosthodontics and Implant supported prosthesis, Geriatric Dentistry and Craniofacial Prosthodontics (MPRO2)

Course Outcomes
CO1: Ability to diagnose and planned treatment for patients requiring a Prosthodontic therapy.
CO2. Ability to read and interpret a radiograph and other investigations for the purpose of diagnoses treatment plan.
CO3: Acquire Knowledge about Age changes and Prosthodontic therapy for the aged.

Fixed Prosthodontics, occlusion, TMJ and esthetics (MPRO3)

Course Outcomes
CO1: Sound knowledge of Tooth and tooth surface restorations, fixed Prosthodontics and maxillofacial and Craniofacial Prosthodontics, Implant supported Prosthodontics, TMJ. and occlusion, craniofacial esthetics, and biomaterials. Craniofacial disorders- problems of psychogenic origin.
CO2. Competent specialization in team management of craniofacial design.
CO3: Competency in managing TMJ related prosthodontic problems

COURSE SYLLABUS

APPLIED BASIC SCIENCES

- A through knowledge on the applied aspects of Anatomy, Embryology, Histology particularly to head and neck , Physiology, Biochemistry, Pathology and Microbiology, and virology.
- Pharmacology, Health and diseases of various systems of Body (systemic) principles in surgery medicine and Anesthesia, Nutrition, Behavioral Sciences , age changes, genetic, Dental Material Science , congenital defects and Syndromes and Anthropology, Biomaterial Sciences Bio-engineering and Biomedical and Research Methodology as related to Masters degree Prosthodontics including crown & bridge and implantology.

It is desirable to have adequate knowledge in Bio-statics Research Methodology and use of computers. To develop necessary teaching skills in Prosthodontics including crown and bridge and implantology.

APPLIED ANATOMY OF HEAD AND NECK

General Human Anatomy – Gross Anatomy, anatomy of Head & Neck in detail. Cranial and facial bones, TMJ and function, muscles of mastication and facial expression, muscles of neck and chain of back muscles including muscles of deglutition and tongue, arterial supply and venous drainage of the head and neck, anatomy of the Para nasal sinuses with relation to the Vth cranial nerve. General consideration of the XI, XII, cranial nerves and autonomic nervous system of the head and neck. The salivary glands, Pharynx, Larynx Trachea, Esophagus, Functional Anatomy of mastication, Deglutition, Speech , respiration, and circulation , teeth eruption, morphology, occlusion and function. Anatomy of TMJ, its movements and myofascial pain dysfunction syndrome.

Embryology – Development of the face, tongue, jaws, TMJ, Para nasal sinuses, pharynx, larynx , trachea, esophagus, Salivary glands, Development of oral and Para oral tissue including detailed aspects of tooth and dental hard tissue formation.

Growth & Development – Facial form and facial growth and development overview of Dentofacial growth process and physiology from fetal period to maturity and old age, comprehensive study of craniofacial biology. General physical growth, functional and anatomical aspects of the head, changes in craniofacial skeletal, relationship between development of the dentition and facial growth.

Dental Anatomy – Anatomy of primary and secondary dentition, concept of occlusion, mechanism of articulation, and masticatory function. Detailed structural and functional study of the oral dental and deciduous mixed and permanent dentitions, root length, root configuration, tooth numbering system.

Histology – histology of enamel, dentin, Cementum, periodontal ligament and alveolar bone, pulpal anatomy, histology and biological consideration. Salivary glands and Histology of epithelial tissues including glands. Histology of general and specific connective tissue including bone, hematopoietic system, lymphoid etc.

Muscle and neural tissues, Endocrinal system including thyroid, Salivary glands, Histology of skin, oral mucosa, respiratory mucosa, connective tissue, bone, cartilage, cellular elements of blood vessels, blood, lymphatic, nerves, muscles, tongue, tooth and its surrounding structures.

Anthropology & Evolution – Comparative study of tooth, joints, jaws, muscles of mastication and facial expression, tongue, palate, facial profile and facial skeletal system. Comparative anatomy of skull, bone, brain, musculo-skeletal system, neuromuscular co-ordination, posture and gait- planti grade and ortho grade posture.

Applied Genetics and Heredity – Principles of orofacial genetics, molecular basis of genetics, genetic risks, counseling, bioethics and relationship to Orthodontic management. Dentofacial anomalies, anatomical, psychological and pathological characteristic of major groups of developmental defects of the orofacial structures.

Cell biology – Detailed study of the structure and function of the mammalian cell with special emphasis on ultra structural features and molecular aspects. Detailed consideration of inter cellular junction. Cell cycle and division, cell- to- cell and cell-extra cellular matrix interactions.

Applied Physiology and Nutrition – Introduction, Mastication, deglutition, digestion, and assimilation, Homeostasis, fluid and electrolyte balance. Blood transfusion, circulation, volume, function, blood groups, and hemorrhage, Blood transfusion, circulation, Heart, Pulse, Blood pressure, capillary and lymphatic circulation, shock, respiration, control, anoxia, hypoxia, asphyxia, artificial respiration. Endocrine glands in particular reference to pituitary, parathyroid and thyroid glands and sex hormones. Role of calcium and Vit D in growth and development of teeth, bone and jaws. Role of Vit. A, C and B complex in oral mucosal and periodontal health. Physiology and function of the masticatory system. Speech mechanism, mastication, swallowing and deglutition mechanism, salivary glands and Saliva.

Endocrines – General principles of endocrine activity and disorders relating to pituitary, thyroid, pancreas, parathyroid, adrenal, gonads, including pregnancy and lactation. Physiology of saliva, urine formation, normal and abnormal constituents, Physiology of pain, Sympathetic and parasympathetic nervous system. Neuromuscular co-ordination of the stomatognathic system.

Applied Nutrition – general principles, balanced diet, effect of dietary deficiencies and starvation, Diet, digestion, absorption, transportation and utilization, diet for elderly patients.

Applied Biochemistry – general principles governing the various biological activities of the body, such as osmotic pressure, electrolytic dissociation, oxidation-reduction, etc. general composition of the body, intermediary metabolism, Carbohydrates, proteins, lipids and their metabolism, Enzymes, Vitamins, and minerals, Hormones, Blood and other body fluids, Metabolism of inorganic elements, Detoxication in the body, Anti metabolites.

Applied Pharmacology and Therapeutics – Definition of terminologies used- Dosage and mode of administration of drugs. Action and fate of drugs in the body, Drug addiction, tolerance and hypersensitive reactions, Drugs acting on the central nervous system, general anesthetics hypnotics. Analeptics and tranquilizers, Local anesthetics, Chemotherapeutics and antibiotics, Antitubercular and anti syphilitic drugs, Analgesics and antipyretics, Antiseptics, styptics, Sialogogues and antisialogogues, Haematinics, Cortisone, ACTH, insulin and other antidiabetics vitamins :A,D,B – complex group C and K etc. Chemotherapy and Radiotherapy.

Applied Pathology – Inflammation, repair and degeneration, necrosis and gangrene, circulatory disturbances, Ischemia, hyperemia, chronic venous congestion, edema, thrombosis, embolism and infarction. Infection and infective granulomas, Allergy and hypersensitive reaction, Neoplasm; Classification of tumors. Applied histo pathology and clinical pathology.

Applied Microbiology – Immunity, knowledge of organisms commonly associated with diseases of the oral cavity (morphology cultural characteristics etc) of strepto, staphylo, pneumo, gono and meningococci, Clostridia group of organisms, Spirochetes, organisms of tuberculosis, leprosy, diphtheria, actinomycosis and moniliasis etc. Virology, Cross infection control, sterilization and hospital waste management.

a) Applied Oral Pathology – Developmental disturbances of oral and Para oral structures, Regressive changes of teeth, Bacterial, viral and mycotic infections of oral cavity, Dental caries, diseases of pulp and periapical tissues, Physical and

chemical injuries of the oral cavity, oral manifestations of metabolic and endocrine disturbances, Diseases of the blood and blood forming organism in relation to the oral cavity, Periodontal diseases, Diseases of the skin, nerves and muscles in relation to the Oral cavity.

b) Laboratory determinations – Blood groups, blood matching, R.B.C. and W.B.C. count, Bleeding and clotting time, Smears and cultures – urine analysis and culture.

Biostatistics – Study of Biostatistics as applied to dentistry and research. Definition, aim characteristics and limitations of statistics, planning of statistical experiments, sampling, collection, classification and presentation of data (Tables, graphs, pictograms etc) Analysis of data.

Introduction to biostatics – Scope and need for statistical application to biological data. Definition of selected terms – scale of measurements related to statistics, Methods of collecting data, presentation of the statistical diagrams and graphs.

Frequency curves, mean, mode of median, Standard deviation and co-efficient of variation, Correlation- Co- efficient and its significance, Binomial distributions, normal distribution and Poisson distribution, Test of significance.

Research methodology – Understanding and evaluating dental research, scientific method and the behavior of scientists, understanding to logic – inductive logic – analogy, models, authority, hypothesis and causation, Quacks, Cranks, Abuses of logic, Measurement and Errors of measurement, presentation of results, Reliability, Sensitivity and specificity diagnosis test and measurement, Research Strategies, Observation, Correlation, Experimentation and experimental design. Logic of statistical interference balance judgments, judgment under uncertainty clinical vs., scientific judgment, problem with clinical judgment, forming scientific judgments, the problem of contradictory evidence, citation analysis as a means of literature evaluation, influencing judgment: Lower forms of Rhetorical life, Denigration, Terminal, Inexactitude.

Applied Radiology – Introduction, radiation, background of radiation, sources, radiation biology, somatic damage, genetic damage, protection from primary and secondary radiation, Principles of X- ray production, Applied principles of radio therapy and after care.

Roentgenographic Techniques – Intra oral: Extra oral roentgenography, Methods of localization digital radiology and ultra sound, Normal anatomical landmarks of teeth and jaws in radiograms, temporomandibular joint radiograms, neck radiograms.

Applied Medicine – Systemic diseases and its influence on general health and oral and dental health, Medical emergencies in the dental offices – Prevention, preparation, medico legal consideration, unconsciousness, respiratory distress, altered consciousness, seizures, drug related emergencies, chest pain, cardiac arrest, pre-medication, and management of ambulatory patients, resuscitation, applied psychiatry, child, adult and senior citizens, Assessment of case, premeditation, inhibition, monitoring, extubation, complication assist in O.T. for anesthesia.

Applied surgery & Anesthesia – General principles of surgery, wound healing, incision wound care, hospital care, control of hemorrhage, electrolyte balance. Common bandages surgeries, grafts, etc, surgical techniques, nursing assistance, anesthetic assistance.

Principles in speech therapy, surgical and radiological craniofacial oncology, applied surgical ENT and ophthalmology.

Plastic surgery – Applied understanding and assistance in programmes of plastic surgery for Prosthodontics therapy.

Applied Dental Materials

- All materials used for treatment of craniofacial disorders – Clinical, treatment, and laboratory materials, Associated materials, Technical consideration, shelf life, storage, manipulations, sterilization and waste management.
- Students shall be trained and practiced for all clinical procedures with an advanced knowledge of theory of principles, concepts and techniques of various honorably accepted methods and materials for prosthodontics, treatment modalities includes honorable accepted methods of diagnosis, treatment plan, records maintenance, and treatment and laboratory procedures and after care and preventive.
- Understanding all applied aspects for achieving physical, psychological well being of the patients for control of diseases and/ or treatment

related syndromes with the patient satisfaction and restoring function of Cranio mandibular system for a quality life of a patient.

- The theoretical knowledge and clinical practice shall include principles involved for support, retention, stability, esthetics, phonation, mastication, occlusion, behavioral, psychological, preventive and social aspects of science of Prosthodontics including Crown & Bridge and Implantology.
- Theoretical knowledge and clinical practice shall include knowledge for laboratory practice and material science. Students shall acquire knowledge and practice of history taking, systemic and oral and Craniofacial region and diagnosis and treatment plan and prognosis record maintaining. A comprehensive rehabilitation concept with pre-prosthetic treatment plan including surgical Re- evaluation and Prosthodontic treatment plan, impressions, jaw relation, utility of face bow and articulators, selection and positioning of teeth for retention, stability, esthetics, phonation and psychological comfort. Fit and insertion and instruction for patients after care and preventive prosthodontics, management of failed restorations.
- TMJ syndromes, occlusion rehabilitation and craniofacial esthetics. State of the art clinical methods and materials for implants supported extra oral and intra oral Prosthodontic therapy.
- Students shall acquire knowledge of testing biological, mechanical and other physical property of all material used for the clinical and laboratory procedures in Prosthodontic therapy.
- Students shall acquire full knowledge and practice equipments, instruments, materials, and laboratory procedures at a higher competence with accepted methods.
- All clinical practice shall involve personal and social obligation of cross infection control, sterilization and waste management.

REMOVABLE PROSTHODONTICS AND IMPLANTS

- a. Prosthodontic treatment for completely edentulous patients – Complete denture, immediate complete denture, single complete denture, tooth supported complete denture, Implants supported Prosthesis for completely edentulous.
- b. Prosthodontics treatment for partially edentulous patients – Clasp- retained partial dentures, intra coronal and extra coronal precision attachments retained partial dentures, maxillofacial prosthesis.

Prosthodontic Treatment for edentulous patients: - Complete Dentures and Implant supported Prosthesis

Complete Denture Prosthesis – Definitions, terminology, G.P.T., Boucher’s clinical dental terminology.

Scope of Prosthodontic – the Cranio Mandibular system and its functions, the reasons for loss of teeth and methods of restorations.

Infection control, Cross infection barrier – clinical and laboratory and hospital and lab waste management.

- a) Edentulous Predicament, Biomechanics of the edentulous state, Support mechanism for the natural dentition and complete dentures. Biological consideration, Functional and Para Functional considerations, Esthetic, behavioral and adaptive responses, Temporomandibular joints changes.
- b) Effects of aging of edentulous patients – aging population, distribution and edentulism in old age, impact of age on edentulous mouth – Mucosa, Bone, Saliva, jaw movements in old age, taste and smell, nutrition, aging, skin and teeth, concern for personal appearance in old age.
- c) Sequelae caused by wearing complete denture – the denture in the oral environment Mucosal reactions, altered taste perception, burning mouth syndrome, gagging , residual ridge reduction, denture stomatitis, flabby ridge, denture irritation hyperplasia, traumatic Ulcers, Oral cancer in dentures wears, nutritional deficiencies, masticatory ability and performance, nutritional status and masticatory functions.
- d) Temporomandibular disorders in edentulous patients – Epidemiology, etiology and management, Pharmacotherapy, Physical modalities, and bio-behavioral modalities.
- e) Nutrition Care for the denture wearing patient – Impact of dental status of food intake, Gastrointestinal functions, nutritional needs and status of older

adults, Calcium and bone health, vitamin and herbal supplementation, dietary counseling and risk factor for malnutrition in patients with dentures and when teeth are extracted.

- f) Preparing patient for complete denture patients – Diagnosis and treatment planning for edentulous and partially edentulous patients – familiarity with patients, principles of perception, health questionnaires and identification data, problem identification, prognosis and treatment planning- contributing history – patient’s history , social information, medical status – systemic status with special reference to debilitating diseases, oral malignancies, climacteric, use of drugs, mental health – mental attitude, psychological and intra oral changes, adaptability, geriatric changes.. Intra oral health- mucosa membrane, alveolar ridges, palate and vestibular sulcus and dental health. Data collection and recording, visual observation, radiography, palpation, measurement – sulci or fossae, extra oral measurement is the vertical dimension of occlusion, diagnostic casts.

Specific observations – existing dentures, soft tissue health, hard tissue health – teeth, bone.

Biomechanical considerations jaw – relations, border tissues, saliva, muscular development- muscle tones, neuromuscular co-ordination, tongue, cheek and lips, development – muscle tones, neuromuscular co-ordination, tongue, cheek and lips.

Interpreting diagnostic findings and treatment planning.

- g) Pre prosthetic surgery – Improving the patients denture bearing areas and ridge Relations: - non surgical methods – rest for the denture supporting tissues, Occlusal correction of the old prosthesis, good nutrition, conditioning of the patients Musculature, surgical methods – Correction of conditions that preclude optimal Prosthetic function – hyper plastic ridge – epulis fissuratum and papillomatosis, frenular attachments and pendulous maxillary tuberosities, ridge augmentation, Maxillary and Mandibular Oral implants, correction of congenital deformities, Discrepancies in jaw size, relief of pressure on the mental foramen, enlargement of tooth roots with Osseo integrated denture implants.

- h) Immediate Denture – Advantages, disadvantages, contra indication, diagnosis treatment plan and prognosis, Explanation to the patient, Oral examinations, examination of existing prosthesis, tooth modification, prognosis, referrals / adjunctive care, oral prophylaxis and other treatment needs.

First extraction / surgical visit, preliminary impressions and diagnostic casts, management of loose teeth, custom trays, final impressions and final casts jaw relation records, setting the denture teeth/ verifying jaw relations and the patient try in, laboratory phase, setting of anterior teeth, Wax contouring, flaking and boil out, processing and finishing , surgical templates, surgery and immediate denture insertion, post operative care and patient instructions , subsequent service for the patient non the immediate denture, over denture tooth attachments, implants or implant attachments.

- i) Over dentures (tooth supported complete dentures) – indications and treatment planning, advantages and disadvantages, selection of abutment teeth, loss of abutment teeth, tooth supported complete dentures. Non-coping abutments, abutment with copings, abutments with attachments, submerged vital roots, preparations of the retained teeth.
- j) Single Dentures: Single Mandibular denture to oppose natural maxillary teeth, single complete maxillary denture to oppose natural Mandibular teeth to oppose a partially edentulous Mandibular arch with fixed prosthesis, partially edentulous Mandibular arch with removable partial dentures. Opposing existing complete dentures, preservation of the residual alveolar ridge, necessity for retaining maxillary teeth and mental trauma.
- k) Art of communication in the management of the edentulous predicament- Communication – scope, model of communication, why communication is important, what are the elements of effective communication, special significance of doctor/ patient communication, doctor behavior. The iatrosedative (doctor & act of making calm) recognizing and acknowledging the problem, offering a solution to the problem for mobilize their resources to operate most efficient way, recognizing and acknowledging the problem, interpreting and explaining the problem, offering a solution to the problem.
- l) Materials prescribed in the management of edentulous patients – Denture base materials, General requirements of biomaterials for edentulous patients, requirement of an ideal denture base, chemical composition of denture base resins, materials used in the fabrication of prosthetic denture bases – base metal alloys.
- m) Articulators – Classification, selection, limitation, precision, accuracy and sensitivity, and Functional activities of the lower member of the articulator and uses.
- n) Fabrications of complete denture – complete denture impressions – muscles of facial expressions and anatomical landmarks, support, retention, stability, aims and objectives – prevention, support, stability, aesthetics,

retention. Impression materials and techniques – need of 2 impressions the preliminary impression and final impression.

Developing an analogue / substitute for the maxillary denture bearing area- anatomy of supporting structures – mucous membrane, hard palate, residual ridge, shape of the supporting structure and factors that influence the form and size of the supporting bones, incisive foramen, maxillary tuberosities, sharp spiny process, torus palatinus. Anatomy of peripheral or limiting structures, labial vestibule, Buccal vestibule, vibrating line, preliminary and final impressions, impression making, custom tray and refining the custom tray, preparing the tray to secure the final impression, making the final impression , boxing impression and making the casts.

Developing an analogue / substitute for the Mandibular denture bearing are – Mandible – anatomy of supporting structure, cast of the residual ridge, the Buccal shelf, shape of the supporting structure, mylohyoid ridge, mental foramen, genial tubercles, torus mandibularis, Anatomy of peripheral or limiting structure – labial vestibule, Buccal vestibule, lingual border, mylohyoid muscle, retromylohyoid fossae, sublingual gland region, alveolo-lingual sulcus, Mandibular impressions – preliminary impressions, custom tray, refining, preparing the tray/, final impressions.

- o) Mandibular movements, Maxillofacial mandibular relation and concepts of occlusion – Gnathology, identification of shape and location of arch form – Mandibular and maxillary, occlusion rim, level of occlusal plane and recording of trail denture base, tests to determine vertical dimension of occlusion, interocclusal, centric relation records, Biological and clinical considerations in making jaw relation records and transferring records from the patients to the articulator, Recording of Mandibular movements – influence of opposing tooth contacts, Temporomandibular joint, muscular involvements, neuromuscular regulation of Mandibular motion, the envelope of motion, rest position, Maxillo- Mandibular relations – the centric, eccentric, physiologic rest position, vertical dimensions, occlusion , recording methods – mechanical, physiological , Determining the horizontal jaw relation – Functional graphics, tactile or interocclusal check record method, Orientation / sagittal relation records, Arbitrary / Hinge axis and face bow record, significance and requirement, principles and biological considerations and securing on articulators.
- p) Selecting and arranging artificial teeth and occlusion for the edentulous patient – anterior tooth selection, posterior tooth selection, and principles in arrangement of teeth, and factors governing position of teeth – horizontal,

vertical. The inclinations and arrangement of teeth for aesthetics, phonetics and mechanics – to concept of occlusion.

- q) The Try in – verifying vertical dimension, centric relation , establishment of posterior palatal seal, creating a facial and functional harmony with anterior teeth, harmony of spaces of individual teeth position, harmony with sex, personality and age of the patient, co-relating aesthetic and incisive guidance.
- r) Speech considerations with complete dentures – speech production – structural and functional demands, neuropsychological background, speech production and the roll of teeth and other oral structures – bilabial sounds, labiodentals sounds, linguodental sounds, linguoalveolar sound, articulator characteristics, acoustic characteristics, auditory characteristics, linguopalatal and linguoalveolar sounds, speech analysis and prosthetic considerations.
- s) Waxing contouring and processing the dentures their fit and insertion and after care – laboratory procedure – wax contouring, flasking and processing, laboratory remount procedures and selective, finishing and polishing. Critiquing the finished prosthesis – doctor’s evaluation, patient evaluation, friend’s evaluation, elimination of basal surface errors, errors in occlusion, interocclusal records for remounting procedures – verifying centric relation, eliminating occlusal errors, special instructions to the patient – appearance with new dentures, mastication new dentures, speaking new dentures, oral hygiene with dentures, preserving of residual ridges and educational material for patients, maintaining the comfort and health of the oral cavity in the rehabilitated edentulous patients. Twenty – four hours oral examination and treatment and preventive Prosthodontic – periodontal recall for oral examination 3 to 4 months intervals and year intervals.
- t) Implant supported Prosthesis for partially edentulous patients – Science of Osseo integration, clinical protocol for treatment with implant support over dentures, managing problems and complications, implant Prosthodontics for edentulous patients: current and future directions.
- u) Implant support prosthesis for partially edentulous patients – Clinical and laboratory protocol: Implant supported prosthesis, managing problems and complications.
 - Introduction and Historical Review.
 - Biological, clinical and surgical aspects of oral implants.
 - Diagnosis and treatment planning.

- Radiological interpretation for selection of fixtures.
- Splints for guidance for surgical placement of fixtures.
- Intra oral plastic surgery.
- Guided bone and Tissue generation consideration for implants fixtures.
- Implants supported prosthesis for complete edentulism and partial edentulism.
- Occlusion for implants supports prosthesis.
- Peri- implants tissue and Management.
- Peri- implant and Management.
- Maintenance and after care.
- Management of failed restoration.
- Work authorization for implant supported prosthesis – definitive instructions, legal aspects, delineating of responsibility.

Prosthodontics treatment for edentulous patients – Removable partial Prosthodontics

Scope, definition and terminology, Classification of partially edentulous arches, requirements of acceptable methods of classification, Kennedy's classification, Applegate's rules for applying the Kennedy classification.

b. Components of RPD

1. Major connector – mandibular and maxillary, minor connectors, design, functions, form and location of major and minor connectors, tissue stops, finishing lines, reaction of tissue to metallic coverage.
2. Rest and rest seats – from of the Occlusal rest and rest seat, interproximal occlusal rest seats, internal occlusal rests, possible movements of partial dentures, support for rests, lingual rests, lingual rests on canines and incisor teeth, incisal rest and rest seat.
3. Direct retainer –Internal attachment, extra coronal direct retainer, relative uniformity of retention, flexibility of clasp arms, stabilizing – reciprocal clasp arm, criteria for selecting a given clasp design, the basic principles of clasp design, Circumferential clasp, bar clasp, combination clasp and other type of retainer
4. Indirect retainer – denture rotation about an axis, factors influencing effectiveness of indirect retainers, forms of indirect retainers, auxiliary

Occlusal rest, canine extensions from Occlusal rests, canine rests continuous bar retainers and linguopalatal, modification areas, rugae support, direct – indirect retention

5. Principle of removable partial Denture design – biomechanic considerations, and the factors influence after mouth preparations – Occlusal relationship of remaining teeth .orientation of occlusal plane, available space for restoration, arch integrity, tooth morphology, response of oral structure to previous stress, periodontal condition abutment support, tooth supported and tooth and tissue supported, need for indirect retention, clasp design, need for rebasing, secondary impression, need for abutment tooth modification, type of major connector, type of teeth selection, patients past experience, method of replacing single teeth or missing anterior teeth. Difference between tooth supported and tissue supported partial dentures, essential of partial denture design, components of partial denture design, tooth support, ridge support, stabilizing components, guiding plans, use of splint bar for denture support, internal clip attachment, overlay abutment as support for a denture base, use of a component partial to gain support.

c. Education of patient.

d. Diagnosis and treatment planning.

e. Design, treatment sequencing and mouth preparation.

f. Surveying – Description of dental surveyor, purpose of surveyor procedure both Survey, Aims and objectives in surveying of diagnostic cast and master cast, Final path pf placement, factors that determine path of placement and removal, Recording relation of cast to surveyor, measuring retention, Blocking of master cast – paralleled blockout, shaped blockout, arbitrary blockout and relief.

g. Diagnosis and treatment planning – Infection control and cross infection barriers clinical and laboratory and hospital and lab waste management, Objectives of Prosthodontic treatment, Records, systemic evaluation, Oral examination data, radiographic interpretation, periodontal considerations, caries activity, prospective surgical preparation, endodontic treatment, analysis of occlusal factors, fixed restorations, orthodontic treatment, need for determining the design of components, impression procedures and occlusion, need for reshaping remaining teeth, reduction of unfavorable tooth contours, differential diagnosis: fixed or removable partial dentures, choice between complete denture and removable partial dentures, choice of materials.

- h. Preparation of mouth for removable partial dentures – Oral surgical preparation, conditioning of abused and irritated tissues, periodontal preparation – objectives of periodontal therapy, periodontal diagnosis, control therapy, periodontal surgery.
- i. Preparation of Abutment teeth – classification of abutment teeth, sequence teeth, sequence of abutment preparations on sound enamel or existing restorations, conservative restoration < using crowns , splinting abutment teeth, utilization, temporary crowns to be used as abutment.
- j. Impression Materials and Procedures for Removable Partial Dentures – Rigid materials, thermoplastic materials, Elastic materials, Impression of the partially edentulous arch, Tooth supported, tooth tissue supported, individual impression trays.
- k. Support for the distal Extension Denture Base – Distal extension removable partial denture, Factors influencing the support of distal extension base, Methods for obtaining functional support for the distal extension base.
- l. Laboratory Procedures – Duplicating a stone case, Waxing the partial denture frame work, Anatomic replica patterns, Sprueing , investing burnout, casting and finishing of the partial denture framework, making record bases, occlusion rims, making a stone occlusal template from a functional occlusal record, arranging posterior teeth to an opposing cast or template, types of anterior teeth, waxing and investing the partial denture before processing acrylic resin bases , processing the denture, remounting and occlusal correction to an occlusal template, polishing the dent
- m. Initial placement, adjustment and servicing of the removable partial denture adjustments to bearing surfaces of denture framework, adjustment of occlusion in harmony with natural and artificial dentition, instruction to the patient, follow up services.
- n. Relining and rebasing the removable partial denture- Relining tooth supported dentures bases, relining distal extension denture bases, methods of re establishing occlusion on a relined partial denture.
- o. Repairs and additions to removable partial denture – Broken clasp arms, fractured occlusal rests, distortion or breakage of other components – major and minor connectors, loss of a tooth or teeth not involved in the support or retention of the restoration, loss of an abutment tooth necessitating its replacement and making a new direct retainer , other types of repairs, Repair by soldering.

- p. Removable partial denture consideration in maxillofacial prosthetics- Maxillofacial prosthetics, intra oral prosthesis, design Considerations, Maxillary prosthesis, Obturators, speech aids, palatal lifts, palatal Augmentations, Mandibular prosthesis, treatment planning ,frame work design, Class I resection ,Class II resection, mandibular flange prosthesis, jaw relation record.
- q. Management of failed restorations, Work authorization.

MAXILLOFACIAL REHABILITATION:

Scope, terminology, definitions, cross infection control and hospital waste Management, work authorization.

Behavioral and psychological issues in Head and Neck cancer, Psychodynamic interaction – clinician and patient – Cancer Chemotherapy : Oral Manifestations, complications, and management, Radiation therapy of head and neck tumors: oral effects, Dental manifestations and dental treatment : Etiology, treatment and rehabilitation (restoration) Acquired defects of the mandible, acquired defects of hard palate, soft palate, clinical management of edentulous and partially edentulous maxillectomy patients, facial defects, restoration of speech, Velopharyngeal function, cleft lip and palate , cranial implants, maxillofacial Trauma , Lip and cheek support prosthesis , Vaginal radiation carrier, Burn stents Nasal stents, Auditory inserts, trismus appliances, mouth controlled devices for assisting the handicapped, custom prosthesis for lagophthalmos of the eye. Osseo integrated supported facial and maxillofacial prosthesis. Resin bonding for maxillofacial prosthesis, implant rehabilitation of the mandible compromise by radiotherapy, Craniofacial Osseointegration, Prosthodontic treatment, Material and laboratory procedures for maxillofacial prosthesis.

OCCCLUSION

Evaluation, Diagnosis and Treatment of Occlusal Problems.

Scope, definition, terminology, optimum oral health , anatomic harmony, functional harmony occlusal stability, causes of deterioration of dental and oral health, Anatomical , physiological, neuro-muscular, psychological, considerations of teeth, muscles of mastication, temporomandibular joint, intra oral and extra oral and facial musculatures, the functions of Cranio mandibular system.

Occlusal therapy, the stomatognathic system, centric relation, vertical dimension, the neutral zone, the occlusal plane, differential diagnosis of temporomandibular disorders, understanding and diagnosing intra articular problems, relating treatment of diagnosis of internal derangements of TMJ, Occlusal splints, selecting instruments for occlusal diagnosis and treatment , mounting casts, Pankey – Mann – Schuyler philosophy of complete occlusal rehabilitation, long centric, anterior guidance, restoring lower anterior teeth, restoring upper anterior teeth, determining the type of posterior occlusal contours, methods for determining the type of posterior occlusal contours, methods for determining the plane of occlusion ,restoring lower posterior teeth, restoring upper posterior ,functionally generated path techniques for recording border movements intraorally. Occlusal equilibration, bruxism, procedural steps in restoring occlusal stability ,solving occlusal wear problem through programmed treatment planning, splinting, solving occlusal wear problems, deep overbite problems, anterior over jet& open bite problems, treating- end to end occlusion, splayed anterior teeth, cross bite patient, crowded ,irregular, or interlocking anterior bite, using Cephalometric for occlusal analysis, solving severe arch malrelationship problems, transcranial radiography, postoperative care of occlusal therapy.

IV. FIXED PROSTHODONTICS

Scope, definitions and terminology, classification and principles, design, mechanical and biological consideration of components – Retainers, connectors, dentics work.

Diagnosis and Treatment Planning – Patient’s history and interview, patient’s desires, expectations and needs ,systemic and emotional health, clinical examinations- head & neck , oral – teeth, occlusal and periodontal, preparation of diagnostic cast, radiographic interpretation, Aesthetics, endodontics considerations, abutment selection- bone support, root proximities and inclinations, selections of abutments, for cantilever, pier abutment, splinting, available tooth structures and crown morphology, TMJ and muscles mastication and comprehensive planning and prognosis.

Management of caries teeth – Caries in aged ,caries control, removing infected carious materials, protection of the pulp, reconstruction

measure for compromising teeth- retentive pins, horizontal slots , retention grooves , prevention of caries , diet, prevention of root caries and vaccine for caries.

Periodontal consideration – attachment units, ligaments. Gingivitis, periodontics, Microbiological aspect of periodontal diseases, marginal lesion, occlusal trauma, periodontal pockets attached gingival, interdental papilla, gingival embrasures, radiographic interpretations of Periodontia, intra oral plastical, periodontal splinting – Fixed prosthodontics with periodontially compromised dentitions, placement of margin restorations.

Biomechanical principle of tooth preparations – individual tooth preparations- Complete metal Crowns – P.F.C., All porcelain – Cerestore crowns, dicor crowns, inceram etc. porcelain jacket crowns partial $\frac{3}{4}$, half and half , riduculer, telescopic, pin-hole, pin-ledge, laminates, inlays, onlays and preparations for restoration of teeth- amalgam, glass lonomer and composite resins. Resin Bond retainer, Gingival marginal preparations- Design, material selection, and biological and mechanical considerations- intracoronal retainer and precision attachments- custom made and ready made.

Isolation and fluid control – Rubber dam applications tissue dilation – soft tissue management for cast restoration, impression material and techniques, provisional restoration, interocclusal equilibration, articulators, recording and transferring of occlusal relations, cementing of restoration.

Resins, Gold and gold alloys, glass lonomer, restorations.

Restorations of endodontically treated teeth, Stomatognathic dysfunction and managements

Management of failed restorations

Osseo integrated supported fixed Prosthodontics- Osseo integrated supported and tooth supported fixed Prosthodontics.

TMJ- Temporomandibular joint dysfunction – Scope , definitions, and terminology.

Temporomandibular joint and its functions, Orofacial pain, and from the temporomandibular joint region, temporomandibular joint dysfunction, temporomandibular joint sounds, temporomandibular joint disorders.

Anatomy related, trauma, disc displacement, Osteoarthritis/ Osteoarthritits, hyper mobility and dislocation, infectious arthritis, inflammatory diseases, Eagle's syndrome (styloid , stylohyoid , syndrome) , Synovial chondromatosis, Osteochondrosis disease, Osteonecrosis. Nerve entrapment process, growth changes, Tumors, Radiographic imaging.

Nerve entrapment process, Growth changes, Tumors, Radiographic imaging.

- ❖ Etiology, diagnosis and cranio mandibular pain, differential diagnosis and management, orofacial pain- pain from teeth, pulp , dentin, muscle pain. TMJ pain- psychologic, physiologic- endogenous control , acupuncture analgesia. Placebo affects on analgesia, Trigeminal neuralgia, Temporal arteritis.
- ❖ Occlusal adjustment procedures – Reversible- occlusal stabilization splints and physical therapies, jaw exercises, jaw manipulation and other physiotherapy or irreversible therapy- occlusal repositioning appliances, orthodontics treatment. Orthognathic surgery , fixed and removable prosthodontic treatment and occlusal adjustment , removable prosthodontic treatment and occlusal adjustment, special nature of orofacial pain, Psychopathological considerations, occlusal adjustment philosophies, mandibular position , excursive guidance, occlusal contact scheme, goals of occlusal adjustment, significance of a slide in centric, Preclinical procedures, clinical procedures for occlusal adjustment.

AESTHETICS

SCOPE, DEFINITIONS-

Morpho psychology and esthetics , structural esthetic rules – facial components, dental components, gingival components physical components. Esthetics and its relationship to function – Crown morphology, physiology of occlusal , mastication, occlusal loading and clinical aspects in bio esthetic aspects, Physical and physiologic characteristic and muscular activities of facial muscle, perioral anatomy and muscle retaining exercise smile – classification and smile components, smile design, esthetic restoration of smile. Esthetic management of the dentogingival unit, intraoral plastic for management of gingival contours , and ridge contours, periodontal esthetics, Restoration – Tooth colored restorative materials, the clinical and laboratory aspects, marginal fit anatomy, inclinations, from size, shape , color, embrasures, contact , point.

Teaching and Learning Activities:

All the candidates registered for MDS course shall pursue the course for a period of Three years as full – time students. During this period each student shall take part actively in learning and teaching activities designed by the Institution/ University. The following teaching and learning activities in each speciality.

Prosthetic treatment should be practiced by developing skills by various and more number of patients to establish skill for diagnose and treatment and after care with bio-mechanical, biological, bio-esthetics, bio-phonetics and all treatment should be carried out in more number for developing clinical skill.

1. **Lectures:** There shall be didactic lectures lectures both in the speciality and in the allied fields. The post graduate department should encourage the guest lectures in the required areas to strengthen the training programmes. It is also desirable to have certain integrated lectures by multidisciplinary teams on selected topics.

2. **Journal Club:** The journal review meetings shall be held at least once a week . All trainees are expected to participate actively and enter relevant details in logbook. The trainee should make presentations from the allotted journal of selected articles at least 5 times in a year.
3. **Seminars :** The seminars shall be held at least twice a week in the department, all trainees associated with postgraduates teachers are expected to participate actively and enter relevant details in logbook. Each trainee shall make at least 5 seminar presentation in each academic year.
4. **Symposium:** It is recommended to hold symposium on topics covering multiple disciplines one in each academic year.
5. **Workshops:** It is recommended to hold workshops on topics covering multiple disciplines one in each academic year.
6. **Clinical Postings:** Each trainee shall work in the clinics on regular cases to be treated by a specialist.
7. **Clinico Pathological Conference:** The Clinico pathological conference should be held once in a month involving the faculties of Oral, Biology, Oral Medicine and Radiology, Oral Pathology, Oral Surgery , periodontology, endodontia and concerned clinical details, radiological, and histo-pathological interpretations and participation in the discussion.
8. **Interdepartmental Meeting:** To bring in more integration among various specialities there shall be interdepartmental meeting chaired by the dean with all heads of Post Graduate department atleast once a month.
9. **Rural oriented Prosthodontic health care:** To carry out a prosthodontic therapy interacting with rural centers and the institution.
10. **Teaching skills :** All the trainees shall be encouraged to take part in undergraduate Teaching programmes either in the form of lectures or group discussions.
11. **Evaluation skills :** All the trainees shall be encouraged to take part evaluating the skills and knowledge in clinical laboratory practice including theory by formulating question banks and model answers.
12. **Continuing dental education programmes:** Each postgraduate department shall organize these programmes on regular basis

involving the other institutions. The trainee shall also be encouraged to attend such programmes conducted elsewhere.

13. Conference / Workshop/ Advanced courses: The trainees shall be encouraged not only to attend conference/ workshops/ advanced courses but also to present atleast two papers at state/ national speciality meeting during their training period.

14. Rotation and Posting in other departments: To bring in more integration between the speciality and allied fields each post graduate department shall workout a programme to rotate the trainees in related disciplines and Craniofacial and Maxillofacial ward.15.

Dissertation: Trainees shall repair a dissertation based on the clinical or Laboratory experimental wok. or any other study conducted by them under the supervision of the postgraduate guide.

YEAR-BY-YEAR PROGRAMME

I YEAR MDS

- ❖ Theoretical exposure of all applied sciences of study.
- ❖ Clinical and non-clinical exercises involved in Prosthodontic therapy for assessment and acquiring higher competence.
- ❖ Commencement of Library assignment within six months.
- ❖ Short epidemiological study relevant to prosthodontics.
- ❖ Acquaintance with books, journals and referrals to acquire knowledge of list of published books, journal and website for the purpose of gaining knowledge and reference – in the fields of Prosthodontics including crown & bridge and implantology.
- ❖ Acquire knowledge of instruments, equipments, and research tools in prosthodontics. To acquire knowledge of dental materials science – Biological and biochemical, bio-esthetics knowledge of use in laboratory and clinics including testing methods.
- ❖ Participation and presentation in seminars, didactics lectures.
- ❖ Evaluation – internal assessment examinations on applied subjects

II YEAR MDS

Acquiring confidence in obtaining various phases and techniques for providing Prosthodontic therapy.

- ❑ Acquiring confidence by clinical practice with sufficient numbers of patient requiring tooth and tooth surface restorations .
- ❑ Fabrication adequate of number of complete denture prosthesis and techniques, higher clinical approach by utilizing in semi- adjustable articulators, face bow and graphic tracing.
- ❑ Understanding the use of the dental surveyor and its application in diagnosis and treatment plan in R.P.D.
- ❑ Adequate number of crowns, inlays, laminates F.P.D. covering all clinically, partially edentulous situation.
- ❑ Selection of cases and principles in treatment of edentulous patients, partial or complete by implant supported prosthesis.
- ❑ Treating single edentulous situation by implant support.
- ❑ Diagnosis and treatment planning
- ❑ Ist stage and IInd stage implant surgery.
- ❑ Understanding the maxillofacial prosthodontics.
- ❑ Treating craniofacial defects.
- ❑ Management of Orofacial esthetics.
- ❑ Prosthetic management of TMJ syndrome.
- ❑ Occlusal rehabilitation.
- ❑ Maintenance and management of filled restoration.
- ❑ Prosthodontics management of patient with Psychogenic origin.
- ❑ Practice of child and geriatric prosthodontics.
- ❑ Participation and presentation in seminars, didactic lectures.
- ❑ Evaluation – internal assessment examinations.

III YEAR MDS

Clinical and laboratory practice continued from IInd year.

- ❖ ❑ Occlusion equilibration – fabrication of stabilizing splint for para functional disorders, occlusal disorders and TMJ functions.
- ❖ ❑ Practice of dental, oral and facial esthetics.
- ❖ ❑ The clinical practice of all aspects of Prosthodontics therapy for elderly patients .
- ❖ ❑ Implants prosthodontics – Rehabilitation of partial Edentulous, complete edentulism and for craniofacial rehabilitation.

- ❖ ☐ Failure in all aspects of Prosthodontics and its management and after care.
- ❖ ☐ Team management of esthetics, TMJ syndrome and maxillofacial techniques Materials and instrumentation requiring different aspects of prosthodontics therapy, tooth and tooth surface restoration, Restoration of root canal treatment of teeth, splints for periodontal rehabilitations and fractured jaws, complete dentures, and craniofacial prosthodontics.
- ❖ ☐ Management of Prosthodontic emergencies, resuscitation.
- ❖ ☐ Candidate should complete the course by attachment by large number and variety of patients to master the prosthodontic therapy. This includes the practice management, examinations , treatment planning , communications with patients, clinical and laboratory R.P.D.F.P.D. immediate dentures over dentures implant supported prosthesis, maxillofacial and body prosthesis , occlusal rehabilitation.
- ❖ ☐ Prosthetic management of TMJ syndrome.
 - ☐ Management of failed restorations.
- ❖ ☐ Complete and submit Library Assignment 6 months prior to examination.
- ❖ Candidates should acquire complete theoretical and clinical knowledge through seminars, symposium, workshops, and reading.
- ❖ Participation and presentation in seminars, didactic lectures.
- ❖ Evaluation- internal assessment examinations three months before University examinations.