GSL DENTAL COLLEGE & HOSPITAL
RAJAMAHENDRAVARAM

Course Outcomes- MDS

S.No	Name of the Program	Name of the Course	Course Outcome
1.1	**MDS in Prosthodontics and Crown & Bridge**	Applied Anatomy, Physiology, Pathology and Dental Materials	1.The candidate would possess knowledge about applied basic and systematic medical sciences. 2. The candidate would be able to examine the patients requiring Prosthodontics therapy, investigate the patient systemically, analyze the investigation results. 3.The candidate would diagnose the ailment, plan a treatment, communicate it with the patient and execute it.
1.2		Removable Prosthodontics and Oral Implantology	1.The candidate would possess knowledge about age changes and Prosthodontic Therapy for the aged related to removable Prosthodontics and oral Implantology 2.The candidate would be able to demonstrate the clinical competence to restore lost functions of stomatognathic system namely mastication, speech, appearance and psychological comforts by removable prosthesis. 3.The candidate would be able to adopt ethical principles in Prosthodontic practice. Professional honesty and integrity are to be fostered. Treatment to be delivered irrespective of social status, caste, creed or religion of patient.
1.3		Fixed Prosthodontics	1.The candidate would be understand the prevalence and prevention of diseases of

			craniomandibular system related to fixed prosthetic dentistry. 2.The candidate would be willing to adopt new methods and techniques in fixed prosthodontics from time to time based on scientific research, which is in patient's best interest. 3.The candidate would be able to communicate in simple understandable language with the patient and explain the principles of fixed prosthodontics to the patient
1.4		Essay	1.The candidate would be able to outline the knowledge, procedural and operative skills needed in Masters Degree in Prosthodontics. 2.The candidate would possess comprehensive knowledge and the ability to apply the same in all the sub branches of prosthodontics in toto.
2.1	**MDS-Oral Medicine and Radiology**	Applied Anatomy, Physiology, Pathology and Pharmacology	On completion of the course 1. the student would demonstrate sound theoretical knowledge and understanding of basic relevant sciences namely, the applied anatomy of the face and oral cavity, the basic physiologic processes, pathologic processes and the basics of pharmacologic applications 2. The student would be proficient in physicalexamination of the patient, identification of normal and abnormal functioning of the various systems of the body.
2.2		Diagnosis, diagnostic methods and imageology and Applied Oral Pathology	On completion of the course, 1. The student would possess ample understanding and knowledge of diagnosis and diagnostic methods, ionizing radiation, its applications in dentistry and its limitations.

			2. the student would be proficient in detailed physical examination of the oral and paraoral structures, identification of pathologies and techniques involved in conventional and advanced diagnostic radiographic examination. 3. Apply high moral and ethical standards while carrying out clinical and radiographic examinations.
2.3		Oral Medicine, therapeutics and laboratory investigations.	On completion of the course, 1. The student would be proficient in describing the etiology, pathophysiology, principles of diagnosis and management of common oro facial disorders. 2. the student would be proficient in formulating a differential diagnosis and investigations plan and frame the treatment strategy. 3. The student would develop communication skills and ability to explain the disease process to the patient and to obtain a informed consent from the patient.
2.4		Essay	On completion of the course, 1. The student would be proficient in effectively and freely analyzing the problem presented by recalling factually. 2. The student would be an expert at synthesizing ideas and rendering a suitable opinion of the problem presented.
3.1	**MDS- Paedodontics & Preventive Dentistry**	Applied Basic Sciences	1. Student should be able to understand applied Anatomy, genetics, Applied Physiology, Applied Pathology, Nutrition, Dietics, Growth & Development, Cariology and Fluoride. 2. Student will be get acquainted with Dental health concepts, Effects of civilization and environment, Dental Health delivery system, Public Health

			measures related to children along with principles of Pediatric Preventive Dentistry 3. Student should be able develop an attitude of Counselling in Paediatric Dentistry 4. Student should be able to do Case History Recording, Outline of principles of examination, diagnosis & treatment planning.
3.2		Clinical Paedodontics	1. Student should be competent to treat dental diseases which are occurring in child patient. Student should be able to manage to repair and restore the lost / tooth structure to maintain harmony between both hard and soft tissues of the oral cavity. 2. Student should be able to manage the disabled children effectively and efficiently, tailored to the needs of individual requirement and conditions. 3. Student should be able to acquire skills in managing efficiency life threatening condition with emphasis on basic life support measure. 4. Student should able to develop an attitude to adopt ethical principles in all aspects of Paediatric dental practice along with professional honesty and integrity.
3.3		Preventive and Community Dentistry as applied to Paediatric Dentistry	1. Student should be able to create a good oral health in the child with Installing a positive attitude and behaviour in children 2. Student should able to understand the principles of prevention and preventive dentistry right from birth to adolescence 3. Student should able to guide and counsel the parents in regards to various treatment modalities including different facets of preventive dentistry

			4. Student should able to deliver care irrespective of the social status, cast, creed, and religion of the patients. 5. Student should able to share the knowledge and clinical experience with professional colleagues with own willingness.
3.4		Essay	1. For a given case,the student after a critical assessment should able to adopt new methods and techniques of Paediatric dentistry that is developed time to time, based on scientific researches, which are in the best interest of the child and patient. 2. Student should able to respect child patient's rights and privileges, including child patient's right to information and right to seek a second opinion.
4.1	**MDS- Oral & Maxillofacial Surgery**	Applied basic sciences	The student would be knowledgeable about: Development and growth of face, teeth and jaws, Age changes and evaluation of mandible in detail 1. Congenital abnormality of orofacial regions 2.Surgical anatomy of scalp , temple and face 3. Anatomy and its applied aspects of triangles of neck and deep structures of neck 4.Cranial facial bones and surrounding soft tissues 5.Cranial nerves 6. Tongue 7. Temporal and infratemporal region and Temperomandibular joint in detail 9. Orbits and its contents 10. Muscles of face and neck 11. General consideration of the structure and function of brain and applied anatomy of intracranial venous sinuses 12. Cavernous sinus and superior

			sagital sinus 13. Brief consideration of autonomous nervous system of head and neck 14. Functional anatomy of mastication, Deglutition and Speech 15. Respiration and circulation 16. Histology of skin, oral mucosa, connective tissue, bone, cartilage, cellularelements of blood vessels, Lymphatic , Nerves, Muscles 17. Tooth and its surrounding structures 18. Cross – sectional Anatomy of the head and neck, as applied in CT, MRI Interpretation 19. Salivary glands – Anatomy, Embryology and Histology. **APPLIED PHYSIOLOGY** **1.** Nervous system – physiology of nerve conduction, pain pathway, sympathetic andparasympathetic nervous system, hypothalamus and mechanism of controlling bodytemperature. 2. Blood - its composition hemostasis, blood dyscrasias and its management,hemorrhage and its control, blood grouping, cross matching, blood componenttherapy, complications of blood transfusion, blood substitutes, auto transfusion, cellsavers. 3. Digestive system - composition and functions of saliva, mastication, deglutition, digestion,assimilation, urine formation, normal and abnormal constituents. 4. Respiratory system – respiration control of ventilation, anoxia, asphyxia, artificialrespiration, hypoxia – type and management 5. CVS - cardiac cycle, shock, heart sounds, blood pressure, hypertension 6. Endocrinology - metabolism of calcium , endocranial activity and

			disorder relating Thyroid gland, parathyroid gland, adrenal gland, pituitary gland, pancreas and gonads . 7. Nutrition – general principles balanced diet, effect of dietary deficiency, protein energy malnutrition, nutritional assessment, metabolic responses to stress, need for nutritional support ,entrails nutrition, roots of access to GIT, parenteral nutrition, access to central veins, nutritional support 8. Fluid and electrolytic balance / acid base metabolism – the body fluid compartment,metabolism of water and electrolytes, factors maintaining hemostasis causes for treatment of acidosis and alkalosis. APPLIED PATHOLOGY 1. Inflammation – acute and chronic inflammation, repair and regeneration, necrosis and gangrene and role of component system in acute inflammation, role of arachidonic acid and its metabolites in acute inflammation, growth factors in acute inflammation role ofNSAIDS in inflammation, cellular changes in radiation injury and its manifestations. 2. Wound management - wound healing factors influencing healing, properties of suturematerials, and appropriate uses of sutures. 3. Hemostasis - role of endothelium in thrombogenesis, arterial and venous thrombi,disseminated intravascular coagulation. 4. Hypersensitivity - shock and pulmonary failure, types of shock, diagnosis, resuscitation, pharmacological support, ARDS and its causes and prevention, ventilation and support 5. Neoplasia - classification of

			tumours, carcinogens and carcinogenesis, spread of tumors,characteristics of benign and malignant tumors, grading and staging of tumoursvarious laboratory investigation. 6. Chromosomal abnormalities with orofacial manifestations. 7. Basics of immunology – primary and acquired immunodeficiencies.
4.2		Minor Oral Surgery and Trauma	The students would be well trained in the assessment and management of: 1. Basic Exodontia 2. Complicated Exodontia 3. Surgical management of Impacted teeth 4. Ectopically positioned and unerupted teeth 5. Tooth Reimplantation and Transplantation 6. Surgical uprighting and Repositioning 7. Principles of Endodontic Microsurgery 8. Periodontal Considerations for Oral Surgery 9. Procedures Involving the Dentogingival Junction 10. Pediatric Dentoalveolar Surgery 11. Lasers in Oral and Maxillofacial Surgery 12. Complications of Dentoalveolar Surgery The students would be able to diagnose and manage Medical emergencies like, prevention and management of altered consciousness (syncope, orthostatic hypotension, seizures, diabetes mellitus, adrenal insufficiency), hypersensitivity reactions, chest discomfort, and respiratory difficulty The students would be knowledgeable about 1. Diagnosis and Perioperative Management of Head and Neck Injuries 2. Basic Principles of Treatment: Hard and Soft Tissue injuries The students would be acquainted with the knowledge and clinical skills in the management of

			1. Dentoalveolar Injuries 2. Mandibular Fractures 3. Temporomandibular Joint Region Injuries 4. Zygomatic Complex Fractures 5. Orbital Trauma 6. Midface Injuries 7. Frontal Sinus Fractures and associated Injuries 8. Nasal Injuries 9. Soft Tissue Injuries 10. Special Soft Tissue Injuries 11. Avulsive Hard Tissue Injuries 12. Maxillofacial Injuries in Children 13. Maxillofacial Injuries in the Elderly 14. Complex Facial Trauma Patient
4.3		Maxillofacial Surgery	The students would be acquainted with the knowledge and clinical skills in the management of 1. Salivary gland:Sialography, Salivary fistula and management diseases of salivary gland - developmental disturbances, cysts, inflammation and sialolithiasis, Mucocele and Ranula,Tumors of salivary gland and their management, Staging of salivary gland tumors, Parotidectomy 2. Temporomandibular Joint: Etiology, history signs, symptoms, examination anddiagnosis of temporomandibular joint disorders, Ankylosis and management of the same with different treatment modalities, MPDS and management, Condylectomy - different procedures, Various approaches to TMJ, Recurrent dislocations - Etiology and Management Oncology: Biopsy, Management of pre-malignant tumors of head and neck region, Benign and Malignant tumors of Head and Neck region, Staging of oral cancer and tumor markers Management of oral cancer, Radial Neck dissection, Modes of spread of tumors, Diagnosis and management of tumors of nasal,

			paranasal, neck, tongue, cheek, maxilla and mandible Radiation therapy in maxillofacial regions,Lateral neck swellings Orthognathic surgery: Diagnosis and treatment planning, Cephalometric analysis, Model surgery, Maxillary and mandibular repositioning procedures, Segmental osteotomies, Management of apertognathia, Genioplasty, Distraction osteogenesis Cysts and tumor of oro facial region: Odontogenic and non-Odonfogenic tumors and their management ,Giant lesions of jawbone, Fibro osseous lesions of jawbone, Cysts of jaw, Laser surgery: The application of laser technology in surgical tr eatment of lesions Cryosurgery: Principles, applications of cryosurgery in surgica l management Cleft lip and palate surgery:Detailed knowledge of the development of the face,head and neck, Diagnosis and treatment planning Current concepts in the management of cleft lip and palate deformity Knowledge of Naso endoscopy and other diagnostic techniques in the evaluation of speech and hearing Concept of multidisciplinary team management Aesthetic facial surgery: Detailed knowledge of the structures of the face and neck including skin and underlying soft tissue, Diagnosis and treatment planning of deformities and conditions affecting facial skin,Underlying facial muscles, bone. Eyelids external ear Surgical management of post acne scarring, facelift, blepharoplasty, otoplasty,facial bone recontouring, etc Craniofacial surgery: Basic knowledge of developmental anomalies of the face, head and neck, Basic concepts in the

			diagnosis and planning of various head and neck anomalies including facial clefts, craniosynostosissyndromes, etc. Current concept in the management of Craniofacial anomalies Implantology: Principles for the Surgical Placement Of Endosseous Implants, Subperiosteal Implants, The Transmandibular Implant Reconstruction System, Single-tooth Replacement in Oral Implantology, Posterior Implant Restorations For Partially Edentulous Patients, Maxillary Sinus Grafts and Implants, Surgical Implant Failures, Soft Tissue Considerations
4.4		Essay	The students would be able to diagnose, meticulously plan and manage competently various conditions in maxillofacial surgery including challenging cases. They would be knowledgeable about conventional and recent advances in the diagnosis and management of oral and maxillofacial conditions. The students would be well versed in basic surgical techniques and knowledgeable about the advanced skills required in maxillofacial surgery.
5.1	**MDS- Orthodontics & Dentofacial Orthopaedics**	Applied Basic Sciences	1. Applied Anatomy Under anatomy they would have learnt about Prenatal and post natal growth of head, bone growth, assessment of growth and development, muscles of mastication, Development of dentition and occlusion. 2. Applied Physiology Under Physiology they would have learnt about Endocrinology and its disorders, Calcium and its metabolism, Nutrition-metabolism and their disorders, Muscle physiology, craniofacial biology, bleeding

			disorders. 3. Dental Materials Under Dental Materials they would have learnt about Gypsum products, impression materials, acrylics, composites, banding and bonding cements, wrought metal alloys, orthodontic arch wires, elastics, applied physics, specification and tests methods, survey of all contemporary and recent advances of above. 4. Genetics Under Genetics they would have learnt about Cell structure, DNA, RNA, protein synthesis, cell division, Chromosomal abnormalities, Principles of orofacial genetics, Genetics in malocclusion, Molecular basis of genetics, Studies related to malocclusion, Recent advances in genetics related to malocclusion, Genetic counselling, Bioethics and relationship to Orthodontic management of patients 5. Physical Anthropology Under Physical Anthropology they would have learnt about Evolutionary development of dentition, Evolutionary development of jaws 6. Pathology Under Pathology they would have learnt about inflammation, and necrosis 7. Biostatistics Under Biostatistics they would have learnt about Statistical principles, Sampling and Sampling technique, Experimental models, design and interpretation, Development of skills for preparing clear concise and cognent scientific abstracts and Publication. 8. Applied research methodology in Orthodontics Under Applied research methodology in Orthodontics they would have learnt about Experimental design, Animal experimental protocol, Principles in the development, execution and interpretation of methodologies in

			Orthodontics, Critical Scientific appraisal of literature.
5.2		Diagnosis & Treatment planning	1. Orthodontic history Under Orthodontic History they would have learnt about Historical perspective, Evolution of orthodontic appliances, Pencil sketch history of Orthodontic peers, History of Orthodontics in India. 2. Concepts of occlusion and esthetics Under this, the students would learn about Structure and function of all anatomic components of occlusion, Mechanics of articulation, Recording of masticatory function, Diagnosis of Occlusal dysfunction, Relationship of TMJ anatomy and pathology and related neuromuscular physiology. 3. Etiology and Classification of malocclusion Under this, the students would learn about, a comprehensive review of the local and systemic factors in the causation of Malocclusion and Various classifications of malocclusion. 4. Dentofacial Anomalies Under this, the students would learn about, anatomical, physiological and pathological characteristics of major groups of developmental defects of the orofacial structures. 5. Child and Adult Psychology Under this, the students would learn about Stages of child development, Theories of psychological development, Management of child in orthodontic treatment, Management of handicapped child, Motivation and Psychological problems related to malocclusion / orthodontics, Adolescent psychology, Behavioral psychology and communication. 6. Diagnostic procedures and treatment

			planning in orthodontics Under this, the students would learn about Stages of child development, Theories of psychological development, Management of child in orthodontic treatment, Management of handicapped child, Motivation and Psychological problems related to malocclusion / orthodontics, Adolescent psychology, Behavioral psychology and communication. 7. Cephalometrics Under this the student would learn about, Instrumentation, Image processing, Tracing and analysis of errors and applications, Radiation hygiene, Advanced Cephalometrics techniques, Comprehensive review of literature, Video imaging principles and application. 8. Practice management in Orthodontics Under this the student would learn about, Economics and dynamics of solo and group practices, Personal management, Materials management, Public relations, Professional relationship, Dental ethics and jurisprudence, Office sterilization procedures, Community based Orthodontics
5.3		Clinical Orthodontics	1. Myofunctional Appliances The students will be capable of diagnosing and interpreting the knowledge obtained to treat developing malocclusion at a younger age. 2. Dentofacial Orthopaedics The students will develop acumen to identify and deliver treatment regimes using orthopaedic appliances to the appropriate cases. 3. Cleft Lip & Palate Rehabilitation The students will be trained to treat the CLCP cases with empathy starting with Naso alveolar moulding at the infant stage and then

			systematically treat the malocclusion using removable / fixed orthodontics during the mixed & permanent dentition by harmonizing the treatment plan with the other members og the multidisciplinary cleft team. 4. Biology of tooth movement Basic understanding of the applied anatomy & physiology regarding to tooth & its surrounding structures will be inculcated into the student, so that the results of application of orthodontic forces can be understood and clinically used. 5. Orthodontics/ Orthognathic Surgery Students will be thoroughly trained in conjoint diagnosis & treatment planning of cases requiring surgical intervention. 6. Ortho/ Perio/ Prostho inter relationship Students will be trained in treating complicated cases requiring a multidisciplinary approach in patient management. 7. Basic Principles of mechanotherapy Students will be trained in designing , construction , fabrication & management of cases using both removable & fixed orthodontics . 8. Applied preventive aspects in Orthodontics A comprehensive view of diagnosing & preventing caries, periodontal diseases to maintain proper inter arch relationship. 9. Interceptive orthodontics Students will be trained in growth guidance, diagnosing & treatment planning of early malocclusion both at mixed/ permanent dentition. 10. **Retention & relapse** Inculcating the acumen to analyze post treatment stability to prevent any replase.
5.4		Essay	1. Recent Advances The Students would be trained in above mentioned topics in detail, so that

			the student would know the recent updates along with the previous literature available.
6.1	**MDS- Oral Pathology & Microbiolo gy**	Applied Basic Science	1. The students should have basic knowledge of biostatistics and research methodology. 2. They would have learnt the anatomy, histology, biochemical and physiology of oral and paraoral structure. 3. They would have learnt the basic pathology, microbiology and basic molecular aspects of pathology.
6.2		Oral Pathology, Microbiology, Immunology And Forensic Odontology	1. The student should have to understand the pathological processes of oral diseases. 2. The student would have to understand the pathological processes of oral diseases, compare and diagnose based on clinical, radiographical and histopathological findings which involves the oral and paraoral structures. 3. They would have learnt and perform the preparation of ground sections oral smears and histology slides. 4. Student would have studied and be able to identify and diagnose the disease based on microscopy.
6.3		Labrotary Techniques , Diagnosis And Oncology	1. The students should have basic knowledge of biopsy procedure and slide preparation. 2. They would have the basic knowledge on laboratory chemicals and equipments. 3. Student should have learnt to identify and appreciate the microscopic slide and writing a report on oral diseases /lesion. 4. Student should have knowledge on Basic hematological tests, urine analysis and its clinical significance.
6.4		Essay	1. Student should have comprehensive knowledge on oral and paraoral structures and related pathologies and also on

			recent advanced methodology / techniques and molecular aspect.
7.1	**MDS - Periodontology**	Applied basic sciences	1. Should have abroad overview of the current research and methods used in studying problems in periodontal disease. 2. Should have an understanding of the broad range of infection diseases affecting the oral cavity . 3. Should have an understanding the clinical and biological factors to be considered in the appropriate use of antimicrobial drugs 4. Be aware of the contemporary principles and practices of laboratory diagnostic techniques and interpretation of laboratory reports. 5. Should have an understanding of hospital acquired infections and infections in the compromised host 6. Should have a basic knowledge on research methodology,biostatistics and be able to apply it in various research projects as well as dissertations.
7.2		Normal periodontal structure and etiopathogenesis and epidemiology	1. Should have a understanding on the normal structure of periodontium and the contributing etiological factors resulting in the pathogenesis of periodontal diseases and be able to apply this knowledge in the diagnosis. 2. Should be able to record indices and plan out epidemiological survey to assess the prevalence and incidence of early onset periodontitis and adult periodontitis in Indian Population
7.3		Periodontal Diagnosis, Therapy And Oral Implantology	1. Should have a sound knowledge of the etiopathogenesis and apply it in diagnosing various periodontal diseases and should be familiar with various periodontal therapies available to treat those cases. 2. Should have an updated knowledge on the recent advancements and be able to

			modify their treatment accordingly. 3. Develop knowledge skill and the science of oral implantology. Should be aware of the various designs and placement of oral implants and follow up of implant restorations.
7.4		Descriptive Analysing Type Question	1. Should be knowledgeable to provide clinical care for patients with complex problems that are beyond the treatment skills of general dentist and demonstrate evaluative and judgment skills in making appropriate decision regarding prevention, correction and referral to deliver comprehensive care to patients. 2. Should be able to analyze various clinical scenarios and apply their knowledge accordingly.
8.1	**MDS- Conservative Dentistry & Endodontics**	Applied Basic Science	1. Students would be able to demonstrate understanding of basic sciences as relevant to conservative / restorative dentistry and Endodontics 2. Students would demonstrate infection control measures in the dental clinical environment and laboratories 3. Student would adopt ethical principles in all aspects of restorative and contemporary Endodontics including non-surgical and surgical Endodontics 4. Students would be able to demonstrate communication skills in particular to explain various options available management and to obtain a true informed consent from the patient 5. Students would be able to apply high moral and ethical standards while carrying on human or animal research
8.2		Conservative Dentistry	1. Students would be able to describe aeitology, pathophysiology, diagnosis and management of common

			restorative situations, that will include contemporary management of dental caries, non-carious lesions and hypersensitivity. 2. Students would be able to take proper chair side history, examine the patient and perform medical and dental diagnostic procedures;as well as perform relevant tests and interpret them to come to a reasonable diagnosis about the dental condition 3. Perform all levels of restorative work including Aesthetic procedures and treatment of complicated restorative procedures
8.3		Endodontics	1. Students would be able to describe aeitology, pathophysiology, periapical diagnosis and management of common endodontic situations that will include contemporary management of trauma and pulpal pathoses including endo-periodontal situations. 2. Students would be able to master differential diagnosis and recognize conditions that may require multidisciplinary approach or a clinical situation outside the realm of the specialty, which he or she should be able to recognize and refer to appropriate specialist 3. Students would undertake complete patient monitoring including preoperative as well as post operative care of the patient. 4. Students would perform all levels of surgical and non-surgical Endodontics including endodontic endoosseous implants,retreatement as well as endodontic-periodontal surgical procedures as part of multidisciplinary approach to clinical condition 5. Students would be able to manage acute pulpal and pulpo periodontal

			situations
8.4		Long Essay	1. Students would diagnose , plan and execute challenging clinical cases requiring comprehensive management strategies using contemporary materials and techniques in the specialty of conservative dentistry and endodontics
9.1	**MDS-Public Health Dentistry**	Applied Anatomy, Physiology, Pathology, and Research methodologyn	1 .Apply basic sciences knowledge regarding etiology, diagnosis and management of the prevention, promotion and treatment of all the oral conditions at the individual and community level. 2. Ability to Take history, conduct clinical examination including all diagnostic procedure to arrive at diagnosis at the individual level and conduct survey of the community at state and national level of all conditions related to oral health to arrive at community diagnosis 3. To apply ethical and moral standards while carrying out epidemiological researches. 4. Be humble and accept the limitations in his knowledge and skill and to ask for help from colleagues when needed and promote teamwork approach. 5. Respect patient's rights and privileges including patients right to information and right to seek a second opinion.
9.2		Public Health	1. Identify social, economic, environmental and emotional determinants in a given individual patient or a community for the purpose of planning and execution of Community Oral Health Program. 2. Planning appropriate Community Oral Health Program conduct the program and evaluate at the community level. 3. Develop the planning, implementation, evaluation and administrative skills to carry out successful community

			Oral Health Programs. 4. To apply ethical and moral standards while carrying out epidemiological researches.
9.3		Dental Public Health	1. Ability to conduct Oral Health Surveys in order to identify all the oral health problems affecting the community and find solutions using multidisciplinary approach. 2. Develop appropriate person power at various levels and their effective utilization. 3. Conduct survey and use appropriate methods to impart Oral Health Education. 4. Respect patient's rights and privileges including patients right to information and right to seek a second opinion.
9.4		Essay	1. Identify social, economic, environmental and emotional determinants in a given individual patient or a community for the purpose of planning and execution of Community Oral Health Program. 2. Ability to make use of knowledge of epidemiology to identify causes and plan appropriate preventive and control measures. 3. Develop the planning, implementation, evaluation and administrative skills to carry out successful community Oral Health Programs.

Course Outcomes - BDS

1.1	**MDS in Prosthodontics and Crown & Bridge**	Applied Anatomy, Physiology, Pathology and Dental Materials	1.The candidate would possess knowledge about applied basic and systematic medical sciences. 2. The candidate would be able to examine the patients requiring Prosthodontics

			therapy, investigate the patient systemically, analyze the investigation results. 3.The candidate would diagnose the ailment, plan a treatment, communicate it with the patient and execute it.
1.2		Removable Prosthodontics and Oral Implantology	1.The candidate would possess knowledge about age changes and Prosthodontic Therapy for the aged related to removable Prosthodontics and oral Implantology 2.The candidate would be able to demonstrate the clinical competence to restore lost functions of stomatognathic system namely mastication, speech, appearance and psychological comforts by removable prosthesis. 3.The candidate would be able to adopt ethical principles in Prosthodontic practice. Professional honesty and integrity are to be fostered. Treatment to be delivered irrespective of social status, caste, creed or religion of patient.
1.3		Fixed Prosthodontics	1.The candidate would be understand the prevalence and prevention of diseases of craniomandibular system related to fixed prosthetic dentistry. 2.The candidate would be willing to adopt new methods and techniques in fixed prosthodontics from time to time based on scientific research, which is in patient's best interest. 3.The candidate would be able to communicate in simple understandable language with the patient and explain the principles of fixed prosthodontics to the patient
1.4		Essay	1.The candidate would be able tooutline the knowledge, procedural and operative skills needed in Masters Degree in Prosthodontics. 2.The candidate would possess comprehensive knowledge and the ability to apply the same in all the sub branches of prosthodontics in toto.
2.1	**MDS-Oral Medicine and Radiology**	Applied Anatomy, Physiology,	On completion of the course, 1. the student would demonstrate sound

		Pathology and Pharmacology	theoretical knowledge and understanding of basic relevant sciences namely, the applied anatomy of the face and oral cavity, the basic physiologic processes, pathologic processes and the basics of pharmacologic applications 2. the student would be proficient in physicalexamination of the patient, identification of normal and abnormal functioning of the various systems of the body.
2.2		Diagnosis, diagnostic methods and imageology and Applied Oral Pathology	On completion of the course, 1. The student would possess ample understanding and knowledge of diagnosis and diagnostic methods, ionizing radiation, its applications in dentistry and its limitations. 2. the student would be proficient in detailed physical examination of the oral and paraoral structures, identification of pathologies and techniques involved in conventional and advanced diagnostic radiographic examination. 3. Apply high moral and ethical standards while carrying out clinical and radiographic examinations.
2.3		Oral Medicine, therapeutics and laboratory investigations.	On completion of the course, 1. The student would be proficient in describing the etiology, pathophysiology, principles of diagnosis and management of common oro facial disorders. 2. the student would be proficient in formulating a differential diagnosis and investigations plan and frame the treatment strategy. 3. The student would develop communication skills and ability to explain the disease process to the patient and to obtain a informed consent from the patient.
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			the patients. 5. Student should able to share the knowledge and clinical experience with professional colleagues with own willingness.
3.4		Essay	1. For a given case,the student after a critical assessment should able to adopt new methods and techniques of Paediatric dentistry that is developed time to time, based on scientific researches, which are in the best interest of the child and patient. 2. Student should able to respect child patient's rights and privileges, including child patient's right to information and right to seek a second opinion.
4.1	**MDS- Oral & Maxillofacial Surgery**	Applied basic sciences	The student would be knowledgeable about: Development and growth of face, teeth and jaws, Age changes and evaluation of mandible in detail 1. Congenital abnormality of orofacial regions 2.Surgical anatomy of scalp , temple and face 3. Anatomy and its applied aspects of triangles of neck and deep structures of neck 4.Cranial facial bones and surrounding soft tissues 5.Cranial nerves 6. Tongue 7. Temporal and infratemporal region and Temperomandibular joint in detail 9. Orbits and its contents 10. Muscles of face and neck 11. General consideration of the structure and function of brain and applied anatomy of intracranial venous sinuses 12. Cavernous sinus and superior sagital sinus 13. Brief consideration of autonomous nervous system of head and neck 14. Functional anatomy of mastication, Deglutition and Speech 15. Respiration and circulation 16. Histology of skin, oral mucosa, connective tissue, bone, cartilage, cellularelements of blood vessels, Lymphatic , Nerves, Muscles 17. Tooth and its surrounding structures 18. Cross – sectional Anatomy of the head and neck, as applied in CT, MRI Interpretation 19. Salivary glands – Anatomy, Embryology and Histology. **APPLIED PHYSIOLOGY**

			1. Nervous system – physiology of nerve conduction, pain pathway, sympathetic andparasympathetic nervous system, hypothalamus and mechanism of controlling bodytemperature. 2. Blood - its composition hemostasis, blood dyscrasias and its management,hemorrhage and its control, blood grouping, cross matching, blood componenttherapy, complications of blood transfusion, blood substitutes, auto transfusion, cellsavers. 3. Digestive system - composition and functions of saliva, mastication, deglutition, digestion,assimilation, urine formation, normal and abnormal constituents. 4. Respiratory system – respiration control of ventilation, anoxia, asphyxia, artificialrespiration, hypoxia – type and management 5. CVS - cardiac cycle, shock, heart sounds, blood pressure, hypertension 6. Endocrinology - metabolism of calcium , endocranial activity and disorder relating Thyroid gland, parathyroid gland, adrenal gland, pituitary gland, pancreas andgonads. 7. Nutrition – general principles balanced diet, effect of dietary deficiency, protein energy malnutrition, nutritional assessment, metabolic responses to stress, need for nutritional support ,entrails nutrition, roots of access to GIT, parenteral nutrition, access to central veins, nutritional support 8. Fluid and electrolytic balance / acid base metabolism – the body fluid compartment,metabolism of water and electrolytes, factors maintaining hemostasis causes for treatment of acidosis and alkalosis. APPLIED PATHOLOGY 1. Inflammation – acute and chronic inflammation, repair and regeneration, necrosis and gangrene and role of component system in acute inflammation, role of arachidonic acid and its metabolites in acute

			nflammation, growth factors in acute inflammation role ofNSAIDS in inflammation, cellular changes in radiation injury and its manifestations. 2. Wound management - wound healing factors influencing healing, properties of suturematerials, and appropriate uses of sutures. 3. Hemostasis - role of endothelium in thrombogenesis, arterial and venous thrombi,disseminated intravascular coagulation. 4. Hypersensitivity - shock and pulmonary failure, types of shock, diagnosis, resuscitation, pharmacological support, ARDS and its causes and prevention, ventilation and support 5. Neoplasia - classification of tumours, carcinogens and carcinogenesis, spread of tumors,characteristics of benign and malignant tumors, grading and staging of tumoursvarious laboratory investigation. 6. Chromosomal abnormalities with orofacial manifestations. 7. Basics of immunology – primary and acquired immunodeficiencies.
4.2		Minor Oral Surgery and Trauma	The students would be well trained in the assessment and management of: 1. Basic Exodontia 2. Complicated Exodontia 3. Surgical management of Impacted teeth 4. Ectopically positioned and unerupted teeth 5. Tooth Reimplantation and Transplantation 6. Surgical uprighting and Repositioning 7. Principles of Endodontic Microsurgery 8. Periodontal Considerations for Oral Surgery 9. Procedures Involving the Dentogingival Junction 10. Pediatric Dentoalveolar Surgery 11. Lasers in Oral and Maxillofacial Surgery 12. Complications of Dentoalveolar Surgery The students would be able to diagnose and manage Medical emergencies like, prevention and management of altered consciousness (syncope, orthostatic hypotension, seizures, diabetes mellitus, adrenal insufficiency), hypersensitivity reactions, chest discomfort, and respiratory difficulty The students would be knowledgeable about 1. Diagnosis

			and Perioperative Management of Head and Neck Injuries 2. Basic Principles of Treatment: Hard and Soft Tissue injuries The students would be acquainted with the knowledge and clinical skills in the management of 1. Dentoalveolar Injuries 2. Mandibular Fractures 3. Temporomandibular Joint Region Injuries 4. Zygomatic Complex Fractures 5. Orbital Trauma 6. Midface Injuries 7. Frontal Sinus Fractures and associated Injuries 8. Nasal Injuries 9. Soft Tissue Injuries 10. Special Soft Tissue Injuries 11. Avulsive Hard Tissue Injuries 12. Maxillofacial Injuries in Children 13. Maxillofacial Injuries in the Elderly 14. Complex Facial Trauma Patient
4.3		Maxillofacial Surgery	The students would be acquainted with the knowledge and clinical skills in the management of 1. Salivary gland:Sialography, Salivary fistula and management diseases of salivary gland - developmental disturbances, cysts, inflammation and sialolithiasis, Mucocele and Ranula,Tumors of salivary gland and their management, Staging of salivary gland tumors, Parotidectomy 2. Temporomandibular Joint: Etiology, history signs, symptoms, examination anddiagnosis of temporomandibular joint disorders, Ankylosis and management of the same with different treatment modalities, MPDS and management, Condylectomy - different procedures, Various approaches to TMJ, Recurrent dislocations - Etiology and Management Oncology: Biopsy, Management of pre-malignant tumors of head and neck region, Benign and Malignant tumors of Head and Neck region, Staging of oral cancer and tumor markers Management of oral cancer, Radial Neck dissection, Modes of spread of tumors, Diagnosis and management of tumors of nasal, paranasal, neck, tongue, cheek, maxilla and mandible Radiation therapy in maxillofacial regions,Lateral neck

			swellings Orthognathic surgery: Diagnosis and treatment planning, Cephalometric analysis, Model surgery, Maxillary and mandibular repositioning procedures, Segmental osteotomies, Management of apertognathia, Genioplasty, Distraction osteogenesis Cysts and tumor of oro facial region: Odontogenic and non-Odonfogenic tumors and their management ,Giant lesions of jawbone, Fibro osseous lesions of jawbone, Cysts of jaw, Laser surgery: The application of laser technology in surgical tr eatment of lesions Cryosurgery: Principles, applications of cryosurgery in surgica l management Cleft lip and palate surgery:Detailed knowledge of the development of the face,head and neck, Diagnosis and treatment planning Current concepts in the management of cleft lip and palate deformity Knowledge of Naso endoscopy and other diagnostic techniques in the evaluation of speech and hearing Concept of multidisciplinary team management Aesthetic facial surgery: Detailed knowledge of the structures of the face and neck including skin and underlying soft tissue, Diagnosis and treatment planning of deformities and conditions affecting facial skin,Underlying facial muscles, bone. Eyelids external ear Surgical management of post acne scarring, facelift, blepharoplasty, otoplasty,facial bone recontouring, etc Craniofacial surgery: Basic knowledge of developmental anomalies of the face, head and neck, Basic concepts in the diagnosis and planning of various head and neck anomalies including facial clefts, craniosynostosissyndromes, etc. Current concept in the management of Craniofacial anomalies Implantology: Principles for the Surgical Placement Of Endosseous Implants, Subperiosteal Implants, The Transmandibular Implant Reconstruction System, Single-tooth Replacement in Oral Implantology, Posterior Implant Restorations For

			Partially Edentulous Patients, Maxillary Sinus Grafts and Implants, Surgical Implant Failures, Soft Tissue Considerations
4.4		Essay	The students would be able to diagnose, meticulously plan and manage competently various conditions in maxillofacial surgery including challenging cases. They would be knowledgeable about conventional and recent advances in the diagnosis and management of oral and maxillofacial conditions. The students would be well versed in basic surgical techniques and knowledgeable about the advanced skills required in maxillofacial surgery.
5.1	**MDS- Orthodontics & Dentofacial Orthopaedics**	Applied Basic Sciences	1. Applied Anatomy Under anatomy they would have learnt about Prenatal and post natal growth of head, bone growth, assessment of growth and development, muscles of mastication, Development of dentition and occlusion. 2. Applied Physiology Under Physiology they would have learnt about Endocrinology and its disorders, Calcium and its metabolism, Nutrition-metabolism and their disorders, Muscle physiology, craniofacial biology, bleeding disorders. 3. Dental Materials Under Dental Materials they would have learnt about Gypsum products, impression materials, acrylics, composites, banding and bonding cements, wrought metal alloys, orthodontic arch wires, elastics, applied physics, specification and tests methods, survey of all contemporary and recent advances of above. 4. Genetics Under Genetics they would have learnt about Cell structure, DNA, RNA, protein synthesis, cell division, Chromosomal abnormalities, Principles of orofacial genetics, Genetics in malocclusion, Molecular basis of genetics, Studies related to malocclusion, Recent advances in genetics related to malocclusion, Genetic counselling, Bioethics and relationship to Orthodontic management of patients 5. Physical

			Anthropology Under Physical Anthropology they would have learnt about Evolutionary development of dentition, Evolutionary development of jaws 6. Pathology Under Pathology they would have learnt about inflammation, and necrosis 7. Biostatistics Under Biostatistics they would have learnt about Statistical principles, Sampling and Sampling technique, Experimental models, design and interpretation, Development of skills for preparing clear concise and cognent scientific abstracts and Publication. 8. Applied research methodology in Orthodontics Under Applied research methodology in Orthodontics they would have learnt about Experimental design, Animal experimental protocol, Principles in the development, execution and interpretation of methodologies in Orthodontics, Critical Scientific appraisal of literature.
5.2		Diagnosis & Treatment planning	1. Orthodontic history Under Orthodontic History they would have learnt about Historical perspective, Evolution of orthodontic appliances, Pencil sketch history of Orthodontic peers, History of Orthodontics in India. 2. Concepts of occlusion and esthetics Under this, the students would learn about Structure and function of all anatomic components of occlusion, Mechanics of articulation, Recording of masticatory function, Diagnosis of Occlusal dysfunction, Relationship of TMJ anatomy and pathology and related neuromuscular physiology. 3. Etiology and Classification of malocclusion Under this, the students would learn about, a comprehensive review of the local and systemic factors in the causation of Malocclusion and Various classifications of malocclusion. 4. Dentofacial Anomalies Under this, the students would learn about, anatomical, physiological and pathological characteristics of major groups of developmental defects of the orofacial structures. 5. Child and Adult

			Psychology Under this, the students would learn about Stages of child development, Theories of psychological development, Management of child in orthodontic treatment, Management of handicapped child, Motivation and Psychological problems related to malocclusion / orthodontics, Adolescent psychology, Behavioral psychology and communication. 6. Diagnostic procedures and treatment planning in orthodontics Under this, the students would learn about Stages of child development, Theories of psychological development, Management of child in orthodontic treatment, Management of handicapped child, Motivation and Psychological problems related to malocclusion / orthodontics, Adolescent psychology, Behavioral psychology and communication. 7. Cephalometrics Under this the student would learn about, Instrumentation, Image processing, Tracing and analysis of errors and applications, Radiation hygiene, Advanced Cephalometrics techniques, Comprehensive review of literature, Video imaging principles and application. 8. Practice management in Orthodontics Under this the student would learn about, Economics and dynamics of solo and group practices, Personal management, Materials management, Public relations, Professional relationship, Dental ethics and jurisprudence, Office sterilization procedures, Community based Orthodontics
5.3		Clinical Orthodontics	1. Myofunctional Appliances The students will be capable of diagnosing and interpreting the knowledge obtained to treat developing malocclusion at a younger age. 2. Dentofacial Orthopaedics The students will develop acumen to identify and deliver treatment regimes using orthopaedic appliances to the appropriate cases. 3. Cleft Lip & Palate Rehabilitation The students will be trained to treat the CLCP cases with

			empathy starting with Naso alveolar moulding at the infant stage and then systematically treat the malocclusion using removable / fixed orthodontics during the mixed & permanent dentition by harmonizing the treatment plan with the other members og the multidisciplinary cleft team. 4. Biology of tooth movement Basic understanding of the applied anatomy & physiology regarding to tooth & its surrounding structures will be inculcated into the student, so that the results of application of orthodontic forces can be understood and clinically used. 5. Orthodontics/ Orthognathic Surgery Students will be thoroughly trained in conjoint diagnosis & treatment planning of cases requiring surgical intervention. 6. Ortho/ Perio/ Prostho inter relationship Students will be trained in treating complicated cases requiring a multidisciplinary approach in patient management. 7. Basic Principles of mechanotherapy Students will be trained in designing , construction , fabrication & management of cases using both removable & fixed orthodontics . 8. Applied preventive aspects in Orthodontics A comprehensive view of diagnosing & preventing caries, periodontal diseases to maintain proper inter arch relationship. 9. Interceptive orthodontics Students will be trained in growth guidance, diagnosing & treatment planning of early malocclusion both at mixed/ permanent dentition. 10. **Retention & relapse** Inculcating the acumen to analyze post treatment stability to prevent any replase.
5.4		Essay	1. Recent Advances The Students would be trained in above mentioned topics in detail, so that the student would know the recent updates along with the previous literature available.
6.1	**MDS- Oral Pathology & Microbiolo gy**	Applied Basic Science	1. The students should have basic knowledge of biostatistics and research methodology. 2. They would have learnt

			the anatomy, histology, biochemical and physiology of oral and paraoral structure. 3. They would have learnt the basic pathology, microbiology and basic molecular aspects of pathology.
6.2		Oral Pathology, Microbiology, Immunology And Forensic Odontology	1. The student should have to understand the pathological processes of oral diseases. 2. The student would have to understand the pathological processes of oral diseases, compare and diagnose based on clinical, radiographical and histopathological findings which involves the oral and paraoral structures. 3. They would have learnt and perform the preparation of ground sections oral smears and histology slides. 4. Student would have studied and be able to identify and diagnose the disease based on microscopy.
6.3		Labrotary Techniques , Diagnosis And Oncology	1. The students should have basic knowledge of biopsy procedure and slide preparation. 2. They would have the basic knowledge on laboratory chemicals and equipments. 3. Student should have learnt to identify and appreciate the microscopic slide and writing a report on oral diseases /lesion. 4. Student should have knowledge on Basic hematological tests, urine analysis and its clinical significance.
6.4		Essay	1. Student should have comprehensive knowledge on oral and paraoral structures and related pathologies and also on recent advanced methodology / techniques and molecular aspect.
7.1	**MDS - Periodontology**	Applied basic sciences	1. Should have abroad overview of the current research and methods used in studying problems in periodontal disease. 2. Should have an understanding of the broad range of infection diseases affecting the oral cavity . 3. Should have an understanding the clinical and biological factors to be considered in the appropriate use of antimicrobial drugs 4.

			Be aware of the contemporary principles and practices of laboratory diagnostic techniques and interpretation of laboratory reports. 5. Should have an understanding of hospital acquired infections and infections in the compromised host 6. Should have a basic knowledge on research methodology,biostatistics and be able to apply it in various research projects as well as dissertations.
7.2		Normal periodontal structure and etiopathogenesis and epidemiology	1. Should have a understanding on the normal structure of periodontium and the contributing etiological factors resulting in the pathogenesis of periodontal diseases and be able to apply this knowledge in the diagnosis. 2. Should be able to record indices and plan out epidemiological survey to assess the prevalence and incidence of early onset periodontitis and adult periodontitis in Indian Population
7.3		Periodontal Diagnosis, Therapy And Oral Implantology	1. Should have a sound knowledge of the etiopathogenesis and apply it in diagnosing various periodontal diseases and should be familiar with various periodontal therapies available to treat those cases. 2. Should have an updated knowledge on the recent advancements and be able to modify their treatment accordingly. 3. Develop knowledge skill and the science of oral implantology. Should be aware of the various designs and placement of oral implants and follow up of implant restorations.
7.4		Descriptive Analysing Type Question	1. Should be knowledgeable to provide clinical care for patients with complex problems that are beyond the treatment skills of general dentist and demonstrate evaluative and judgment skills in making appropriate decision regarding prevention, correction and referral to deliver comprehensive care to patients. 2. Should be able to analyze various clinical scenarios and apply their knowledge accordingly.

8.1	**MDS- Conservative Dentistry & Endodontics**	Applied Basic Science	1. Students would be able to demonstrate understanding of basic sciences as relevant to conservative / restorative dentistry and Endodontics 2. Students would demonstrate infection control measures in the dental clinical environment and laboratories 3. Student would adopt ethical principles in all aspects of restorative and contemporary Endodontics including non-surgical and surgical Endodontics 4. Students would be able to demonstrate communication skills in particular to explain various options available management and to obtain a true informed consent from the patient 5. Students would be able to apply high moral and ethical standards while carrying on human or animal research
8.2		Conservative Dentistry	1. Students would be able to describe aeitology, pathophysiology, diagnosis and management of common restorative situations, that will include contemporary management of dental caries, non-carious lesions and hypersensitivity. 2. Students would be able to take proper chair side history, examine the patient and perform medical and dental diagnostic procedures;as well as perform relevant tests and interpret them to come to a reasonable diagnosis about the dental condition 3. Perform all levels of restorative work including Aesthetic procedures and treatment of complicated restorative procedures
8.3		Endodontics	1. Students would be able to describe aeitology, pathophysiology, periapical diagnosis and management of common endodontic situations that will include contemporary management of trauma and pulpal pathoses including endo-periodontal situations. 2. Students would be able to master differential diagnosis and recognize conditions that may require multidisciplinary approach or a clinical situation outside the realm of the specialty, which he or she should be able to recognize and refer to

			appropriate specialist 3. Students would undertake complete patient monitoring including preoperative as well as post operative care of the patient. 4. Students would perform all levels of surgical and non-surgical Endodontics including endodontic endoosseous implants,retreatement as well as endodontic-periodontal surgical procedures as part of multidisciplinary approach to clinical condition 5. Students would be able to manage acute pulpal and pulpo periodontal situations
8.4		Long Essay	1. Students would diagnose , plan and execute challenging clinical cases requiring comprehensive management strategies using contemporary materials and techniques in the specialty of conservative dentistry and endodontics
9.1	**MDS-Public Health Dentistry**	Applied Anatomy, Physiology, Pathology, and Research methodologyn	1 .Apply basic sciences knowledge regarding etiology, diagnosis and management of the prevention, promotion and treatment of all the oral conditions at the individual and community level. 2. Ability to Take history, conduct clinical examination including all diagnostic procedure to arrive at diagnosis at the individual level and conduct survey of the community at state and national level of all conditions related to oral health to arrive at community diagnosis 3. To apply ethical and moral standards while carrying out epidemiological researches. 4. Be humble and accept the limitations in his knowledge and skill and to ask for help from colleagues when needed and promote teamwork approach. 5. Respect patient's rights and privileges including patients right to information and right to seek a second opinion.
9.2		Public Health	1. Identify social, economic, environmental and emotional determinants in a given individual patient or a community for the purpose of planning and execution of Community Oral Health Program. 2. Planning

			appropriate Community Oral Health Program conduct the program and evaluate at the community level. 3. Develop the planning, implementation, evaluation and administrative skills to carry out successful community Oral Health Programs. 4. To apply ethical and moral standards while carrying out epidemiological researches.
9.3		Dental Public Health	1. Ability to conduct Oral Health Surveys in order to identify all the oral health problems affecting the community and find solutions using multidisciplinary approach. 2. Develop appropriate person power at various levels and their effective utilization. 3. Conduct survey and use appropriate methods to impart Oral Health Education. 4. Respect patient's rights and privileges including patients right to information and right to seek a second opinion.
9.4		Essay	1. Identify social, economic, environmental and emotional determinants in a given individual patient or a community for the purpose of planning and execution of Community Oral Health Program. 2. Ability to make use of knowledge of epidemiology to identify causes and plan appropriate preventive and control measures. 3. Develop the planning, implementation, evaluation and administrative skills to carry out successful community Oral Health Programs.

COURSE OUTCOMES - BDS

S.No	Name of the Program	Name of the Course	Course Outcome
1.1	BDS – 1st year	General Human Anatomy,	1. Dental student with knowledge on normal disposition of the structures in the body,

		Including Embryology, Osteology, Histology & Medical Genetics	microscopic structure of the various tissues, nervous system to locate the site of lesions, sectional anatomy of head, neck and brain. 2. Dental student possessing skills to locate various structures of head and neck of the body, identify various tissues under microscope, 3. Dental student with an integrated knowledge on basic sciences and clinical subjects.
1.2	BDS – 1st year	General Human Physiology	1. Dental student with knowledge on normal functioning of all the organ systems and their interactions, relative contribution of each organ system towards the maintenance of total body function, physiological principles underlying the pathogenesis of various diseases and oral and para - oral structures. 2. Dental student with basic skill to conduct and interpret experimental and investigative data,
1.3	BDS – 1st year	Biochemistry	1. Dental student with knowledge on biochemical agents related to dentistry, various micro and macro nutrients.
1.4	BDS – 1st Year	Dental Anatomy, Embryology And Oral Histology	1. Dental graduate with basic knowledge on Morphology of both deciduous and permanent teeth, Methods of identifying the teeth and age of the plaster cast 2. Dental graduate with basic skills in Wax carving of teeth, Identifying the basic histology slides by microscopy 3. Dental graduate with potential to efficiently communicate physiological development, morphology, structure & functions of teeth and oral & paraoral tissues & its variations.
2.1	BDS – 2nd Year	General Pathology	1. Dental student with knowledge on pathological changes at macroscopic and microscopic levels, capabilities and limitations of morphological Pathology in its contribution to dentistry. 2. Dental student with an ability to integrate knowledge from the basic sciences to clinical application in dentistry
2.2	BDS – 2nd	Microbiology	1. Dental student with sound understanding of

	Year		various infectious diseases and lesions in the oral cavity, various methods of Sterilisation and disinfection. 2. Dental student with basic skills to select, collect and transport clinical specimens to the laboratory and be able to carry out proper aseptic procedures in the dental clinic.
2.3	BDS – 2nd Year	General and Dental Pharmacology and Therapeutics	1. Dental student with knowledge on indications, contraindications; interactions, allergies and adverse reactions of commonly used drugs, use of appropriate drugs in disease with consideration to its efficacy, safety for individual and mass therapy needs. 2. Dental student with an ability to advice special care in prescribing common and essential drugs in special medical situations such as pregnancy, lactation, old age, renal, hepatic damage and immune compromised patients. 3. Dental student with skills to prescribe drugs for common dental and medical ailments, appreciate adverse reactions and drug interactions of commonly used drugs.
2.4	BDS – 2nd Year	Dental Materials	1. Dental student with knowledge of physical, chemical, mechanical and biological properties of all materials used in dentistry. 2. Dental student with an ability to manipulate various dental materials
2.5	BDS – 2nd Year	Pre-Clinical Prosthodontics	1. Dental student with sound knowledge on landmarks in edentulous patients would be able to do all lab procedures to make a conventional complete denture.
2.6	BDS – 2nd Year	Pre-Clinical Conservative Dentistry	1. Dental student will sound knowledge on hand and rotary cutting instruments. 2. Dental student with basic skill to prepare cavity designs to receive various restorative materials on typhodont teeth in skill laboratory.
3.1	BDS – 3rd Year	General Medicine	1. Dental student with sound knowledge on oral manifestations of systemic diseases,medical emergencies in dental practice. special precautions/ contraindication of anesthesia.

			2. Dental students with ability to diagnose and manage various common medical problems encountered in general, dental practice and dental emergencies. 3. Dental student with basic skill to prevent and manage complications encountered while carrying out various dental surgical and other procedures.
3.2	BDS – 3rd Year	General Surgery	1. Dental student with sound surgical knowledge on anomalies, lesions and diseases of the teeth, mouth and jaws. 2. Dental student with an ability to diagnose and manage various common surgical problems encountered in general, dental practice and dental emergencies.
3.3	BDS – 3rd Year	Oral Pathology	1. Dental graduate with basic knowledge on pathogenesis of Oral disease, diagnosis and comparison based on clinical, radiograph and histopathologic features of oral disease 2. Dental graduate with basic skills in preparation of ground sections and oral smears, age estimation based on teeth, identifying and diagnosing the pathology based on light microscopy 3. Dental graduate with potential to efficiently communicate diagnosis & correlate with other oral disease with their pathological processes.
4.1	BDS – 4th Year	Oral Medicine and Radiology	1. Generate graduates that demonstrate the necessary knowledge, skills and attitude in Oral & Maxillofacial Diagnosis, Diagnostic procedures and medical management of such disorders. 2. Create confident and competent Dental professionals who can accomplish and execute clinical deftness in the diagnosis and management of Orofacial disorders
4.2	BDS – 4th Year	Oral and Maxillofacial Surgery	1. Application of knowledge of related medical subjects in management of patients with oral surgical problem. 2. Sufficient knowledge to diagnose, manage and treat minor oral surgical procedures. 3. Understanding and exposure to the

			management of major oral surgical problems and principles involved in inpatient management.
4.3	BDS – 4th Year	Periodontology	1. Oral health professionals who are efficient and trained to handle oral health issues 2. Dental graduates on par with latest technologies which would develop them as professionals as well as help them in their employment opportunities 3. Dental graduate with practical skills which would improve doctor patient relationship having positive impact on society 4. Dental graduate who is skilled to apply multidisciplinary approach for successful treatment outcome 5. Dental graduate with a research mindset trained on par with international standards
4.4	BDS – 4th Year	Paedodontics and Preventive Dentistry	1. KNOWLEDGE: Dental practitioners with ability to diagnose common dental problems and/or capability to assess growth and development variations and suggest necessary referrals or actions as needed timely. 2. SKILL: Clinicians who can effectively and efficiently perform basic dental treatments in children from birth to adolescence with proper behavior management of child and the parent, as well as instill positive dental attitude with preventive modalities
4.5	BDS – 4th Year	Conservative Dentistry and Endodontics	1. To educate and impart clinical skill to students which will help them in providing quality restorative treatment and basic endodontic procedures. 2. To provide restorative care in dentistry in a competent and ethical manner which will contribute to the oral health and general well being of the individual and community. 3. As a graduate, the dentist would exhibit professional behaviour, basic skills to carry out range of dental procedures in general dental practice independently with consistency and accuracy.

			4. To instill the importance of life-long learning and updating the knowledge in the field of restorative dentistry and endodontics.
4.6	BDS – 4th Year	Prosthodontics and Crown and Bridge	1. Dental graduate with knowledge on prosthetics needs of patients, fabrication of all prosthodontic modes of treatment 2. Dental graduate who is able to diagnose, motivate and treat patients who are partially and completely edentulous (including geriatric patients) with complete and partial dentures 3. Dental graduate skilled enough to identify cases requiring specialist prosthodontic treatment needs and refer them for further follow up
4.7	BDS – 4th Year	Orthodontics and Dentofacial Orthopedics	1. Graduates emerging from this institute are excelling in academics & Practice. 2. Many undergraduates from our institutes are pursuing post graduation in our specialty.
4.8	BDS – 4th Year	Public Health Dentistry	1. Dental graduate with basic knowledge on oral health problems in India, methods for collecting data on these problems, methods for prevention and control of these problems at individual and community levels. 2. Dental graduate with basic skills in identifying oral health problems, collecting data on oral health problems prevailing in the country through surveys, developing strategies for their control at individual and community levels. 3. Dental graduate with potential to efficiently communicate needs of the community, simple self care strategies to promote oral health of population.