

**PROGRAM OUTCOMES & PROGRAM SPECIFIC OUTCOMES - BDS**

| <b>PROGRAM OUTCOMES</b>            |   |   |
|------------------------------------|---|---|
| <b>KNOWLEDGE AND UNDERSTANDING</b> |   |   |
| PO 1                               | KU1   | Identify and describe the anatomy, physiology and pathology of the teeth, mouth and jaws and associated tissues and their relationship and effect on general state of health and also bearing on physical and social well being of the patient. |
| PO 2                               | KU2   | Describe various diagnostic methods, preventive measures and treatment methodologies to restore the function and health of the orofacial system.  |
| <b>SKILLS – COGNITIVE</b>          |   |   |
| PO 3                               | CS1   | Diagnose the clinical condition, interpret laboratory findings and design a treatment plan using multidisciplinary approach if required.  |
| PO 4                               | CS2   | Develop and modify treatment methodologies based on the principles of oral health to resolve the diseases.  |
| <b>SKILLS – PRACTICAL</b>          |   |   |
| PO 5                               | PS1   | Differentially diagnose oral diseases by performing clinical examination by maintaining proper protocol.  |
| PO 6                               | PS2   | Administer appropriate medications to alleviate pain and infection and also perform the relevant clinical procedures to restore the oral health.  |
| <b>ATTITUDE &amp; CAPABILITY</b>   |   |   |
| PO 7                               | AC1   | Apply current knowledge of dentistry for the benefit of patients and community while maintaining high standard of professional ethics.  |
| PO 8                               | AC2   | Participate in the implementation of oral health policy and various continuing dental education programmes to update professional knowledge and skills.   |
| <b>PROGRAM SPECIFIC OUTCOMES</b>   |   |   |
| PSO1                               | Comprehend the use of advanced diagnostic & treatment modalities for better patient care.             |   |
| PSO2                               | Develop optimum communication & organisational skills for pursuing research or contemporary practice. |   |



**Director Principal  
Sundera Dental College &  
Research Institute, SGNR**



# Surendera Dental College & Research Institute

H. H. Gardens, Power House Road, Sri Ganganagar, Rajasthan- 335001

Phone: 0154-2440072, 2443412, 2440071 Email: Info@sgi.org.in

## COURSE OUTCOMES - BDS

| BDS 101: GENERAL HUMAN ANATOMY HISTOLOGY & EMBRYOLOGY |  |
|---|--|
| CO 1  | Know and understand the microscopic structure of the various human tissues as a pre-requisite for understanding of the disease processes.  |
| CO 2  | Know and understand about the embryological development of foetus , critical stages of tissue development , effects of teratogens and genetic mutations on them.                         |
| CO 3  | Know and understand the structures of the human body and mark its topography for understanding the normal and abnormal functioning of all systems specially in the head and neck region. |
| CO 4  | Know the sectional anatomy of head neck and brain and apply it to read the features by radiographic techniques and for clinical understanding of diseases.                               |
| CO 5  | Apply the knowledge of normal disposition of the structures in the human body to clinically examining a patient and conduct clinical procedures.   |

| BDS 102 : GENERAL PHYSIOLOGY & BIOCHEMISTRY |   |
|---|---|
| CO 1  | Understand the normal physiological functioning of all the organ systems and their interactions for well-coordinated total body function. |
| CO 2  | Assess the relative contribution of each organ system towards the maintenance of the milieu interior of the human body.                   |
| CO 3  | List the physiological and biochemical principles underlying the pathogenesis and treatment of diseases affecting human body.             |
| CO 4  | Conduct & interpret experimental and investigative data from the study of physiological and biochemical phenomena.                        |
| CO 5  | Distinguish between normal and abnormal data derived as a result of tests which he/she has performed and observed in the laboratory.      |

  
**Director Principal**  
Surendera Dental College &  
Research Institute, SGNR

| BDS 103 : DENTAL ANATOMY & HISTOLOGY |   |
|--------------------------------------|---|
| CO 1                                 | Student would be able to understand the anatomy and histologic aspects of teeth and orofacial structures.   |
| CO 2                                 | Student would be able to correlate the knowledge of histology and embryology to the functional aspects of oral and para oral structures.  |
| CO 3                                 | Student would be able to identify deciduous and permanent dentition and estimate the age by patterns of teeth eruption from plaster casts of different age groups.                                  |
| CO 4                                 | Student would acquire the skill to prepare ground sections and would be able to understand the steps of tissue processing and staining and be able to identify histological slides of oral tissues. |
| CO 5                                 | Students would be able to simulate natural dentition by acquiring the skill to carve life-size teeth on wax models and know about the various aspects of teeth.                                     |



**Director Principal**  
**Surendra Dental College &**  
**Research Institute, SGNR**

| BDS 201 : GENERAL PATHOLOGY & MICROBIOLOGY |   |
|--|---|
| CO 1                                       | Know and understand the normal homeostatic mechanisms and the cause, effect and nature of its derangement by internal and external processes.   |
| CO 2                                       | Understand the reparative, hemodynamic and immunological responses produced in different tissues and organs by cell injury, infectious, non infectious diseases and neoplasia.  |
| CO 3                                       | Understand the basic biology of various microorganisms and the beneficial and harmful effects of their virulence on human immunity and tissues.   |
| CO 4                                       | Perform and interpret the basic bed-side clinical pathological and cytological procedures on blood, urine and saliva samples for diagnosis of diseases.   |
| CO 5                                       | Evaluate the gross and microscopic features, clinical presentation and diagnostic techniques associated with different diseases in different organ systems to the extent needed for the understanding of disease processes and their clinical significance. |
| CO 6                                       | Use the principals of microbiology and pathology to practice various methods of sterilisation and disinfection in dental clinics.   |

  
 Director Principal  
 Surendera Dental College &  
 Research Institute, SGNR



**BDS 202 : GENERAL PHARMACOLOGY & THERAPEUTICS**

|             |  |
|-------------|--|
| <b>CO 1</b> | Understand the pharmacokinetics and pharmacodynamics of essential and commonly used drugs in general medicine with special emphasis to practice of clinical dentistry.                   |
| <b>CO 2</b> | Choose appropriate medication for prescription to the patient based on indications , contraindications , interactions and adverse reactions of the drug using scientific rationale.      |
| <b>CO 3</b> | Apply special care in prescribing common and essential drugs in special medical situations such as pregnancy, lactation, old age, renal, hepatic damage and immuno compromised patients. |
| <b>CO 4</b> | To appreciate adverse reactions and drug interactions of commonly used drugs and render appropriate care in prevention and treatment of the same.  |
| <b>CO 5</b> | Critically evaluate and compare drug formulations of commonly marketed preparations used in dentistry on ethical and scientific basis.   |

  
Director Principal  
Surendera Dental College &  
Research Institute, SGNR

| BDS 203 : DENTAL MATERIALS |   |
|----------------------------|---|
| CO 1                       | Students should be aware of the classification, composition and setting reaction of dental materials.   |
| CO 2                       | Students should have the knowledge and understanding of physical, chemical, mechanical, biological and rheological properties as well as the application of various dental materials. |
| CO 3                       | Students should be able to analyze and select the appropriate materials depending on the advantages, disadvantages, indications and contraindications of various materials.           |
| CO 4                       | Students should know and should be able to perform manipulation of dental materials.  |
| CO 5                       | Students should have the awareness and develop the acumen about the modern dental materials and recent innovative processing technique.   |

  
**Director Principal**  
 Surendera Dental College &  
 Research Institute, SGNR

| <b>BDS 205 : PRE-CLINICAL CONSERVATIVE DENTISTRY</b> |   |
|--|---|
| <b>CO 1</b>  | Students would have the knowledge & understanding of rotary and hand instruments , tooth numbering systems , the fundamentals & various types of tooth preparation, methods of isolation & pulp protection.                         |
| <b>CO 2</b>  | Students would be able to apply the knowledge regarding identification & usage of instruments and materials to perform restorative procedures with proper contact & contour (as applicable) on typhodont / natural extracted teeth. |
| <b>CO 3</b>  | Students would be able to analyze and perform the restorative procedures on typhodont / natural extracted teeth based on types and extent of carious and non carious tooth defect.  |
| <b>CO 4</b>  | Students would be able to evaluate the quality & identify the defects committed during restorative procedures.  |
| <b>CO 5</b>  | Students would be able to differentiate between access cavity, direct and indirect restorations.  |



**Director Principal**  
**Surendera Dental College &**  
**Research Institute, SGNR**

| <b>BDS 204 : PRE-CLINICAL PROSTHETICS</b> |  |
|---|--|
| <b>CO 1</b>                               | To be able to understand different denture bearing areas and apply that knowledge for the purpose of preclinical impression making.              |
| <b>CO 2</b>                               | To be able to understand anatomy and physiology of the stomatognathic system and apply the knowledge for fabrication of preclinical record bases |
| <b>CO 3</b>                               | To be able to understand the parts and function of articulators and articulate preclinical models in different jaw relations                     |
| <b>CO 4</b>                               | To be able to select and arrange tooth in Class I Occlusion for complete denture and removable partial dentures.                                 |
| <b>CO 5</b>                               | To be able to perform laboratory procedures resulting in creation of preclinical complete and removable partial dentures.                        |



**Director Principal**  
**Surendera Dental College &**  
**Research Institute, SGNR**



| <b>BDS 301: GENERAL MEDICINE</b> |  |
|----------------------------------|--|
| <b>CO 1</b>                      | Understanding the epidemiological profile , pathophysiologic basis and signs & symptoms of diseases with their required investigation and management.                            |
| <b>CO 2</b>                      | Competently interview and examine a patient to make a rational clinical diagnosis by ordering and interpreting necessary laboratory tests.                                       |
| <b>CO 3</b>                      | Initiate appropriate cost-effective treatment based on an understanding the rationale of drug prescriptions , medical interventions required and preventive measures.            |
| <b>CO 4</b>                      | Manage common medical emergencies and independently perform common medical procedures with emphasis on patient safety issues.  |
| <b>CO 5</b>                      | Communicate effectively , educate and counsel the patient and their family for the disease process with goal to support the national preventive health policies and initiatives. |

| <b>BDS 302 : GENERAL SURGERY</b> |  |
|----------------------------------|--|
| <b>CO 1</b>                      | Understand the anatomical and pathological basis including the basic principles of diagnosis and management of common surgical problems in adults and children   |
| <b>CO 2</b>                      | Ability to choose , calculate and administer appropriately intramuscular and intravenous fluids , electrolytes , medications , blood and blood products based on the clinical condition.                                   |
| <b>CO 3</b>                      | Ability to apply the principals of asepsis sterilisation and disinfection with rational use of antibiotics for prophylaxis & therapeutics in surgical practice.  |
| <b>CO 4</b>                      | Ability to perform common diagnostic and surgical procedures at the primary care level including the ability to recognise resuscitate and provide basic life support to patients following trauma or in medical emergency. |
| <b>CO 5</b>                      | Ability to counsel patient prior to surgical procedure and prevention of surgical pathology including recording informed consent   |

  
**Director Principal**  
**Surendera Dental College &**  
**Research Institute, SGNR**

**BDS 303 : ORAL & MAXILLOFACIAL PATHOLOGY**

|             |  |
|-------------|--|
| <b>CO 1</b> | Students would be able to understand the different types of pathological processes that involve the oral cavity.   |
| <b>CO 2</b> | Students would be able to identify the maxillofacial disease process and correlate with their systemic manifestations & laboratory findings.   |
| <b>CO 3</b> | Students would be able to understand the etiopathogenesis, clinical radiological and histological features including deducing treatment plan and differential diagnosis of oral lesions.                     |
| <b>CO 4</b> | Students would be able to understand the basic aspects of oral biopsy, cytology and advanced diagnostic modalities and appraise their application in detection of oral pre cancer and cancer.                |
| <b>CO 5</b> | The students would be able to develop basic knowledge of forensic odontology and oral research outlook and would be able to apply its knowledge to design and write short research studies and case reports. |



**Director Principal  
Surendera Dental College &  
Research Institute, SGNR**

**BDS 401 : ORAL MEDICINE & RADIOLOGY**

|             |   |
|-------------|---|
| <b>CO 1</b> | Would be able to diagnose simple hard tissue lesions, pulp and periapical lesions, identify precancerous and cancerous lesions of the oral cavity and refer to the concerned speciality for its management.                             |
| <b>CO 2</b> | Would have adequate knowledge about common laboratory investigations required to diagnose oral diseases and interpret the results of the said investigations.   |
| <b>CO 3</b> | Would have adequate knowledge about medical complications that can arise while treating systemically compromised patients and take prior precautions and consent from the concerned medical specialist.                                 |
| <b>CO 4</b> | Would have adequate knowledge about radiation health hazards, radiations safety and demonstrate competence to take intra-oral radiographs and interpret their radiographic findings.  |
| <b>CO 5</b> | Would gain adequate knowledge and understanding of various extra-oral radiographic procedures, TMJ radiography and sialography.   |
| <b>CO 6</b> | Would be aware of the importance of intra and extra oral radiographs in forensic identification and age estimation and be familiar with jurisprudence, ethics and understanding the significance of dental records with respect to law. |



**Director Principal  
Surendera Dental College &  
Research Institute, SGNR**

| <b>BDS 402 : ORAL &amp; MAXILLOFACIAL SURGERY</b> |  |
|---|--|
| <b>CO 1</b>                                       | Ability to remember and understand the anatomical , physiological ,pathological basis of oral and maxillofacial diseases including the applicable medical and surgical aspects.        |
| <b>CO 2</b>                                       | Ability to apply the theoretical knowledge to differentially diagnose the various oral and maxillofacial diseases using various investigative modalities.                              |
| <b>CO 3</b>                                       | Ability to apply his/her knowledge in formulating an effective treatmentplan for the patient considering medical , ethical and surgical guidelines.                                    |
| <b>CO 4</b>                                       | Ability to perform minor oral surgical procedures with proper anesthesia and asepsis and managing common medical and surgical emergencies prevalent in contemporary clinical practice. |
| <b>CO 5</b>                                       | Ability to evaluate the effectiveness of his/her treatment plan and assessthe resulting complications and learn to prevent them.   |



**Director Principal**  
**Surendera Dental College &**  
**Research Institute, SGNR**

| <b>BDS 403 : CONSERVATIVE DENTISTRY &amp; ENDODONTICS</b> |   |
|---|---|
| <b>CO 1</b>   | Students would have the knowledge and understanding of diseases of the teeth , pulp and periapex and their associated diagnosis , material science , instrumentation and restorative procedures.                              |
| <b>CO 2</b>   | Students would be able to apply his theoretical knowledge in a clinical scenario to arrive at a restorative and/or endodontic diagnosis using appropriate investigative procedures.   |
| <b>CO 3</b>   | Students would be able to develop the ability to formulate an effective treatment plan with a multidisciplinary approach wherever possible.   |
| <b>CO 4</b>   | Students would be able to treat the defects and pathologies of the teeth and periapex using conventional and advanced tools and materials as applicable keeping legal jurisprudence in mind.                                  |
| <b>CO 5</b>   | Students would have the aptitude to identify and formulate treatment plans for esthetic rehabilitation , dental emergencies , endodontic mishaps , iatrogenic errors and dental management of medically compromised patients. |



**Director Principal**  
**Surendera Dental College &**  
**Research Institute, SGNR**



**BDS 404 : PERIODONTICS**

|             |  |
|-------------|--|
| <b>CO 1</b> | Student would be able to explain the different parts of the periodontium and understand their development and condition in health & disease.   |
| <b>CO 2</b> | With proper application of knowledge of the subject, students would be able to identify the chief complaint of the patient to derive a correct diagnosis, plan the treatment, educate and motivate the patient.  |
| <b>CO 3</b> | The student would be able to perform thorough oral prophylaxis, subgingival scaling, root planning, minor periodontal surgery and analyse the prognosis of the treatment.  |
| <b>CO 4</b> | Student would be able to give treatment for proper oral hygiene as well as post operative instructions to the patient, segregate the ones requiring periodontal surgical interventions with multidisciplinary approach and perform periodic recall and evaluation. |
| <b>CO 5</b> | Student would have the knowledge of advanced techniques and their applications in advanced surgical approaches like laser therapy, implant therapy and oral plastic surgeries.   |



**Director Principal**  
**Surendra Dental College &**  
**Research Institute, SGNR**

| <b>BDS 405 : PROSTHODONTICS WITH CROWN &amp; BRIDGE</b> |   |
|---|---|
| <b>CO 1</b>   | The students would have clear understanding of the stomatognathic system and the rationale of prosthodontic treatment options.  |
| <b>CO 2</b>   | The students would be able to evaluate and diagnose different clinical situations which require prosthodontic treatment and can formulate proper treatment plan and treatment sequence.   |
| <b>CO 3</b>   | The students would be able to carry out treatment of conventional complete and partial removable dentures and fixed partial dentures.   |
| <b>CO 4</b>   | The students would be able to examine, evaluate and justify the situations which require unconventional and/or complex treatment options like implant dentistry and maxillofacial prosthesis using advanced treatment modalities. |
| <b>CO 5</b>   | The student would have sufficient communication skills and understanding of patient psychology to perform treatment with optimum ethical considerations.  |



**Director Principal**  
**Surendera Dental College &**  
**Research Institute, SGNR**

**BDS 406 : PEDODONTICS & PREVENTIVE DENTISTRY**

|      |  |
|------|--|
| CO 1 | Able to know the anatomical structures, physiology, development and function of orofacial structures and understand the principles of the preventive measures from birth to adolescence  |
| CO 2 | Able to apply his/her knowledge to obtain clinical history of the child patient, perform diet counselling, manage the child's behaviour and instill a positive dental attitude.  |
| CO 3 | Able to diagnose and formulate treatment plan of incipient malocclusion in deciduous and mixed dentition including oral habits and space management.   |
| CO 4 | Able to define, classify, identify and create treatment plan of dental caries and its sequelae and different oral health conditions of gingival and periodontal origin.  |
| CO 5 | Able to develop the ability to spread awareness among the community, manage the physically and mentally disabled and medically compromised children effectively and discuss the dental emergencies including trauma in children. |



**Director Principal**  
Surrendera Dental College &  
Research Institute, SGNR

| BDS 407 : ORTHODONTICS & DENTOFACIAL ORTHOPAEDICS |   |
|---|---|
| CO 1  | The students will have a clear understanding of skeletal and dental malocclusions , biology & biomechanics of orthodontic toothmovements.   |
| CO 2  | The students will be able to diagnose and formulate a treatment plan for common malocclusions prevailing in the society.  |
| CO 3  | The students will be able to triage the orthodontic patients based on severity of malocclusion and treat minor orthodontic problems including interceptive and preventive procedures.                         |
| CO 4  | The students will be able to motivate and explain to the patient about the existing dental condition and the need for maintenance of proper oral hygiene along with the necessity for orthodontic correction. |
| CO 5  | The students will develop an attitude towards continuous learning and enhancement of knowledge as per the needs of the society.   |



**Director Principal**  
**Prendera Dental College &**  
**Research Institute, SGNR**

| <b>BDS 408 : PUBLIC HEALTH DENTISTRY</b> |  |
|--|--|
| <b>CO 1</b>                              | Students will be able to understand the basic concepts of public health in oral and dental diseases.                             |
| <b>CO 2</b>                              | Students will be able to comprehend the steps of research methodology.   |
| <b>CO 3</b>                              | Students will be able to evaluate oral diseases and conditions prevailing in the society and design treatment plan for the same. |
| <b>CO 4</b>                              | Students will be able to perform various preventive measures to limit or eradicate prevalent oral diseases in the society.       |
| <b>CO 5</b>                              | Student will be able to identify community health related problems and design public health programs.                            |



**Director Principal**  
Surendra Dental College &  
Research Institute, SGNR



## MDS PROGRAM OUTCOMES AND COURSES OUTCOMES

### 1. ORAL MEDICINE AND RADIOLOGY - MDS/OMR11

| PROGRAM OUTCOMES |   |
|------------------|---|
| PO1              | The student should be able to examine patients orally & systemically, evaluate the investigation results, plan the treatment, and communicate it with the patient.                  |
| PO 2             | To understand the prevalence and prevention of diseases related to oral cavity along with diagnostic skill in recognition of oral with radiographic diagnosis and their management. |
| PO3              | Identify target diseases and awareness amongst the population for therapy. To have research skills in handling scientific problems pertaining to oral treatment.                    |
| PO4              | Complete clinical examination and perform biopsy on patients, clinical and didactic skills in encouraging students to attain learning objectives.                                   |

| PROGRAM SPECIFIC OUTCOMES |   |
|---------------------------|---|
| PSO1                      | Able to understand various Oral lesions.  |
| PSO2                      | Acquire skill in imaging modalities for various oro-facial diseases.  |
| PSO3                      | Acquire knowledge in clinical and oral manifestations of various diseases affecting the head and neck region.   |
| PSO4                      | Expertise in diagnosing various pathologies affecting the head and neck region by proper identification of clinical features as well as ordering the proper investigative procedures to strengthen the diagnosis. |

#### Course Outcomes (CO)

|                |     |  |
|----------------|-----|--|
| Basic Sciences | CO1 | Post graduate would be able to acquire knowledge about the basic structures & applied anatomy of face & Oral cavity, the basic physiologic processes, pathologic processes and the basics of pharmacologic applications.   |
|                | CO2 | The student would gain a thorough knowledge of applied basic and systematic medical sciences.  |
|                | CO3 | Knowledge of the regional anatomy, Physiology, biochemistry, microbiology, Pharmacology, pathology, histology, embryology and osteology of head and neck with general disposition of thorax, abdominal and pelvic organs and translating this knowledge in diagnostic practice |

  
**Director/Principal**  
 Surendra Dental College  
 Research Institute, SC...

|   |     |  |
|---|-----|--|
| Oral and Maxillofacial Radiology                          | CO1 | Gain knowledge and expertise in basics of imaging and radiology  |
|   | CO2 | Acquire skill in imaging modalities for various oro-facial diseases  |
|   | CO3 | Post graduate will be able to deliver the treatment to the patients irrespective of social status caste, creed or religion by adopting ethical principles in dental practice while fostering professional honesty integrity. |
|   | CO4 | Expertise in interpreting radiographs and images pertaining to head and neck imageology.   |
| Oral Medicine, Therapeutics and Laboratory Investigations | CO1 | The student would be proficient in describing the aetiology, pathophysiology, principles of diagnosis and management of common oro facial disorders.   |
|   | CO2 | Expertise to diagnose various pathologies affecting the head and neck region by proper identification of clinical features as well as ordering the proper investigative procedures to strengthen the diagnosis               |
|   | CO3 | Communication in patient's understandable language will be adapted by the candidate and to obtain a informed consent from the patient.   |
|   | CO4 | Post graduate will be able to diagnose and analyses various possibilities of treatment keeping in view of the various situations and needs of the patients   |
| Essay   | CO1 | Gaining the knowledge, procedural and operative skills needed in master's degree in Oral medicine and radiology can be outlined by the post graduate.  |
|   | CO2 | Ability to possess and apply comprehensive knowledge will be attained by the candidate in all the sub branches.  |

### CO-PO MAPPING

#### Paper I- Basic Sciences

| Paper 1 | PO 1 | PO 2 | PO 3 | PO 4 |
|---------|------|------|------|------|
| CO 1    | ✓    | ✓    |      |      |
| CO 2    | ✓    |      | ✓    |      |
| CO 3    | ✓    |      |      | ✓    |

#### Paper II- Oral and Maxillofacial Radiology

| Paper 2 | PO 1 | PO 2 | PO 3 | PO 4 |
|---------|------|------|------|------|
| CO 1    | ✓    | ✓    |      |      |
| CO 2    |      |      |      |      |
| CO 3    |      |      | ✓    |      |
| CO 4    |      |      |      | ✓    |

  
 Director Principal  
 Surenders Dental College &  
 Research Institute, SONR

**Paper III- Oral Medicine, Therapeutics and Laboratory Investigations**

| Paper 3 | PO 1 | PO 2 | PO 3 | PO 4 |
|---------|------|------|------|------|
| CO 1    | ✓    |      |      |      |
| CO 2    |      | ✓    |      |      |
| CO 3    |      |      | ✓    |      |
| CO 4    |      |      |      | ✓    |

**Paper IV- Essay**

| Paper 4 | PO 1 | PO 2 | PO 3 | PO 4 |
|---------|------|------|------|------|
| CO 1    | ✓    | ✓    |      |      |
| CO 2    |      |      | ✓    | ✓    |

**2. ORAL AND MAXILLOFACIAL SURGERY**

**PROGRAM OUTCOMES**

After completion of postgraduate degree

PO-1 The postgraduate should be able to do through clinical examination, evaluation & diagnosis, surgery & an adjunct treatment of diseases, injuries & deformity/defects (congenital/acquired) involving both the functional and aesthetics accepts of hard and soft tissues of oral (mouth) & maxillofacial (jaws, face and associated structures) region.

PO-2 The postgraduate should be able to perform medical and dental diagnostic procedure as well as perform relevant tests and interpret to them to come to reasonable diagnosis about the condition in general and oral and maxillofacial surgery in particular.

PO-3 The postgraduate should be able to undertake complete patient monitoring including preoperative as well as postoperative care of patient

PO-4 The postgraduate should be able to provide basic life support in emergency situation

PO-5 The postgraduate should be able to manage acute infection situation and have a through knowledge of infection control measures

PO-6 The postgraduate should be able to develop communication skill in particular to explain various options available for management and obtain a true inform consent from the patient

PO-7 The postgraduate should be able to understand the professional honesty and integrity and apply high moral and ethical standard.

**COURSE OUTCOME**

|                       |     |  |
|-----------------------|-----|--|
| Applied Basic Science | CO1 | At the end of the course Postgraduate student should be able to understand applied Anatomy, Applied physiology, applied pathology and microbiology and development and growth of face, teeth and jaws. |
|-----------------------|-----|--|

  
**Director Principal**  
**Surendra Dental College &**  
**Research Institute, SGNR**



|                               |     |  |
|-------------------------------|-----|--|
|                               | CO2 | Student should be able to efficiently use applied basic sciences for diagnosis treatment planning and surgical Procedures  |
|                               | CO3 | Student should learn about pharmacological management of various clinical and surgical treatment modalities  |
|                               | CO4 | Student should be able to read various radiographs including CT and MRI  |
| Minor oral surgery and trauma | CO1 | Student should be well trained in assessment and treatment of simple to complicated extraction procedure and other simple to complicated minor dentoalveolar surgeries.  |
|                               | CO2 | Student should be knowledgeable about diagnosis and pre operative management of head and neck injuries (hard and soft tissue injuries)   |
|                               | CO3 | Student should be able to understand principles of ectopic position and unerupted teeth, procedures involving other dental specialties like endodontics surgeries, periodontal considerations of oral surgeries and pediatric dentoalveolar surgeries. |
|                               | CO4 | Student should be able to diagnose & manage medical emergencies like prevention and management of altered consciousness, hypersensitivity reaction, chest discomfort and respiratory difficulty  |
|                               | CO5 | Student should be able to manage maxillofacial trauma in children and elderly patients.  |
| Maxillofacial surgery         | CO1 | Student should be acquired with clinical skills in the management of various maxillofacial pathology like cysts, benign tumors, and salivary gland disorders   |
|                               | CO2 | Student should be able to manage TMJ disorder like TMJ ankylosis, MPDS, internal derangement and dislocation   |
|                               | CO3 | Student should be able to understand the concepts of oncology in relation to biopsy, management of pre malignant condition or lesion or oncosurgery chemotherapy and radio therapy   |
|                               | CO4 | Student should have detailed knowledge of application of nasal surgery, cryosurgery, piezosurgery for maxillofacial pathology.   |
|                               | CO5 | Student should have detailed knowledge of development of face, head and neck, diagnosis treatment planning and current concepts of cleft lip and palate deformities  |
|                               | CO6 | Student should be able to apply multidisciplinary approach with dental and medical colleague regarding diagnosis and management of maxillofacial trauma and other clinical surgical procedures   |
|                               | CO7 | Student should be able to do aesthetic facial surgery like orthognathic surgeries and surgical management of soft tissue deformity and age related problem with various surgical procedure like blepharoplasty, face lift and masseter hypertrophy     |

  
 Director Principal  
 Sarda Dental College  
 Research Institute, Sarda

|       |     |  |
|-------|-----|--|
| Essay | CO1 | Student should be able to diagnose meticulously plan and manage compliantly various complication in maxillofacial surgery including challenging cases        |
|       | CO2 | Student should be knowledgeable about conventional recent advances in diagnosis and management along with advances skills required in maxillofacial surgery. |

**COURSE PART 1: APPLIED BASIC SCIENCE**

|     | PO 1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-----|------|-----|-----|-----|-----|-----|-----|
| CO1 | ✓    | ✓   | ✓   |     |     |     |     |
| CO2 | ✓    | ✓   | ✓   | ✓   |     |     | ✓   |
| CO3 |      |     |     |     |     |     | ✓   |
| CO4 |      |     |     | ✓   | ✓   | ✓   | ✓   |

**COURSE PART 2: MINOR ORAL SURGERY AND TRAUMA**

|     | PO 1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-----|------|-----|-----|-----|-----|-----|-----|
| CO1 | ✓    | ✓   | ✓   | ✓   |     | ✓   | ✓   |
| CO2 | ✓    |     |     | ✓   |     | ✓   | ✓   |
| CO3 | ✓    | ✓   | ✓   | ✓   |     | ✓   | ✓   |
| CO4 |      | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   |
| CO5 | ✓    | ✓   | ✓   | ✓   |     | ✓   | ✓   |

**COURSE PART 3: MAXILLOFACIAL SURGERY**

|     | PO 1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-----|------|-----|-----|-----|-----|-----|-----|
| CO1 | ✓    | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   |
| CO2 | ✓    | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   |
| CO3 | ✓    | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   |
| CO4 | ✓    | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   |
| CO5 | ✓    | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   |
| CO6 | ✓    | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   |
| CO7 | ✓    | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   |

**COURSE PART 4: ESSAY**

|     | PO 1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 |
|-----|------|-----|-----|-----|-----|-----|-----|
| CO1 | ✓    | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   |
| CO2 | ✓    | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   |

  
**Director Principal**  
**Surendra Dental College**  
**Research Institute, SGN**



### 3. PERIODONTOLOGY AND ORAL IMPLANTOLOGY – MDS/PERIO13

#### PROGRAM OUTCOMES

PO 1- The student now knows the normal anatomy of oral mucosa, gingiva and supporting structures of the teeth & differentiation between the normal and diseased structures of periodontium.

PO 2- Understand the prevalence and prevention of diseases of craniomandibular system related to Periodontics.

PO 3- Identify various periodontal diseases and can undertake preventive programme in the community.

PO 4- The student should be able to examine the patients requiring Periodontal therapy, investigate the patient systemically, analyze the risk factors, plan a treatment, communicate it with the patient and execute it.

#### PROGRAM SPECIFIC OUTCOMES

PSO 1- Able to understand the applied anatomy of head, neck, face, periodontium and its development disturbances..

PSO 2- Student able to identify social, economic, environmental and emotional determinant in periodontal health and diseases..

PSO 3- Competent to carry out routine Periodontal procedures.

PSO 4- Familiar with the concept of osseointegration and the value of immediate and delay implant.

#### COURSE OUTCOMES

|                        |     |  |
|------------------------|-----|--|
| Applied Basic sciences | CO1 | Post graduate would be able to diagnose the cause of the ailment, formulate the treatment plan and communicate it with the patient to execute it.                                |
|                        | CO2 | The candidate would gain the thorough knowledge of applied basic and systematic medical sciences.  |
|                        | CO3 | Examination and systematic investigation of patients requiring periodontal treatment along with  |
|                        |     | interpretation of investigation results will be achieved by the post graduate  |
|                        | CO4 | Utilization of knowledge of various biochemical and microbiological tests to find out proper diagnosis of diseases.  |
| Etiopathogenesis       | CO1 | Knowledge of epidemiology of gingival and periodontal diseases and role of periodontal pathogenic bacteria and viruses in etiology of disease will be attained by the candidate. |

  
Director Principal  
Surendera Dental College &  
Research Institute, SGNR

|   |     |  |
|---|-----|--|
|   | CO2 | Demonstration of the skills by the candidate in various preventive measures to patients. Develop communication skill to make awareness regarding periodontal diseases.   |
|   | CO3 | Post graduate will be able to deliver the treatment to the patients irrespective of social status caste, creed or religion by adopting ethical principals in periodontics practice while fostering professional honesty integrity. |
|   | CO4 | Student can analyzed the role of systemic diseases in causing periodontal diseases and adapted in their practice in treating the patients' especially geriatric patients.  |
| Clinical and therapeutic Periodontology and Oral Implantology | CO1 | Post graduate take proper clinical history including medical history evaluation , advice essential diagnostic procedures and interpret them to come for reasonable diagnosis .   |
|   | CO2 | Adapting new methods and techniques in Periodontics based on scientific research that occurs from time to time in view of patient's best interest will be learned by the candidate.  |
|   | CO3 | Communication in patient's understandable language regarding the surgical and non-surgical methods will be adapted by the candidate.   |
|   | CO4 | Post graduate will develop knowledge and skill in the science and practice of oral Implantology.   |
| Essay   | CO1 | Gaining the knowledge, procedural and operative skills needed in master's degree in periodontics can be outlined by the post graduate.   |
|   | CO2 | Ability to possess and apply the comprehensive knowledge will be attained by the candidate in diseases and treatment modalities in Periodontics.   |

Course Part I – Applied Basic Sciences

|    | PO1 | PO2 | PO3 | PO4 | PSO1 | PSO2 | PSO3 | PSO4 |
|----|-----|-----|-----|-----|------|------|------|------|
| O1 | ✓   | ✓   | ✓   | ✓   | ✓    | ✓    | ✓    | ✓    |
| O2 | ✓   |     |     |     | ✓    |      | ✓    | ✓    |
| O3 |     |     |     | ✓   |      |      |      |      |
| O4 |     |     |     | ✓   |      |      |      |      |

  
**Director Principal**  
 Surendera Dental College &  
 Research Institute, SGNR

**Course Part II – Etiopathogenesis**

|     | PO1 | PO2 | PO3 | PO4 | PSO1 | PSO2 | PSO3 | PSO4 |
|-----|-----|-----|-----|-----|------|------|------|------|
| CO1 |     |     | ✓   | ✓   | ✓    |      | ✓    |      |
| CO2 |     | ✓   | ✓   | ✓   |      | ✓    | ✓    |      |
| CO3 |     | ✓   | ✓   | ✓   |      | ✓    | ✓    |      |
| CO4 | ✓   | ✓   | ✓   | ✓   |      | ✓    |      |      |

**Course Part III – Clinical and therapeutic periodontology and oral implantology**

|     | PO1 | PO2 | PO3 | PO4 | PSO1 | PSO2 | PSO3 | PSO4 |
|-----|-----|-----|-----|-----|------|------|------|------|
| CO1 |     | ✓   | ✓   | ✓   |      | ✓    | ✓    |      |
| CO2 |     |     | ✓   | ✓   |      |      | ✓    | ✓    |
| CO3 |     |     | ✓   | ✓   |      | ✓    | ✓    | ✓    |
| CO4 |     |     |     | ✓   |      |      |      | ✓    |

**Course Part IV – Recent Advances**

|     | PO1 | PO2 | PO3 | PO4 | PSO1 | PSO2 | PSO3 | PSO4 |
|-----|-----|-----|-----|-----|------|------|------|------|
| CO1 |     |     |     | ✓   | ✓    |      |      | ✓    |
| CO2 | ✓   | ✓   | ✓   | ✓   |      | ✓    | ✓    | ✓    |

**4. ORTHODONTICS AND DENTOFACIAL ORTHOPAEDICS –MDS/ORTHO14**

**Programme Outcomes (PO):**

**PO1 :** The student should be knowing the effect of biologic processes and mechanical forces on the stomatognathic system throughout orthodontic treatment.

**PO2:** The student should be able to obtain proper clinical history, methodical examination of the patient, perform essential diagnostic procedures, and interpret them and arrive at a reasonable diagnosis about the Dentofacial deformities.

**PO3:** Should be competent to fabricate and manage the most appropriate appliance- intra or extra oral, removable or fixed, mechanical or functional, and active or passive- for the treatment of any orthodontic problem- preventive, interceptive or corrective to be treated.

**PO4:** Develop an attitude to adopt ethical principles in all aspects of Orthodontic practice.

  
**Director Principal**  
 Surendera Dental College  
 Research Institute



PO5: Should be competent to know the factors affecting the long- range stability of orthodontic correction and their management.

PO6: Develop adequate communication skills particularly with the patients giving them the various options available to manage a particular Dentofacial problem.

Courses Outcome:

|                        |     |  |
|------------------------|-----|--|
| Applied Basic Sciences | CO1 | <b>Applied Anatomy :</b> 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.  |
|                        | CO2 | <b>Applied Physiology:</b> 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.   |
|                        | CO3 | <b>Dental Materials:</b> 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. |
|                        | CO4 | <b>Genetics:</b> Under Genetics, they would have learnt about Cell   |



**Director Principal**  
Sundera Dental College  
Research Institute, SGNR



|                                |     |  |
|--------------------------------|-----|--|
|                                |     | 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 counseling, Bioethics and relationship to Orthodontic management of patients. |
|                                | CO5 | <b>Physical Anthropology:</b> Under Physical Anthropology, they would have learnt about Evolutionary development of dentition, Evolutionary development of jaws.   |
|                                | CO6 | <b>Pathology:</b> Under Pathology, they would have learnt about inflammation, and necrosis   |
|                                | CO7 | <b>BioStatistics:</b> 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 cogent scientific abstracts and Publication.  |
|                                | CO8 | <b>Applied research methodology in Orthodontics:</b> 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.                    |
| Diagnosis & Treatment planning | CO1 | <b>Orthodontic history:</b> 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.  |
|                                | CO2 | <b>Concepts of occlusion and esthetics:</b> 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.                |
|                                | CO3 | <b>Etiology and Classification of malocclusion :</b> 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.  |
|                                | CO4 | <b>Dentofacial Anomalies :</b> Under this, the students would learn about, anatomical, physiological and pathological characteristics of major groups of developmental defects of the orofacial structures.  |

  
 Director Principal  
 Surendra Dental College &  
 Research Institute, SCNR

Course Part IV – Essays

|     | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
|-----|-----|-----|-----|-----|-----|-----|
| CO1 | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   |

5. DEPARTMENT OF CONSERVATIVE DENTISTRY AND ENDODONTICS –  
MDS/CONS 15

Programme Outcomes (PO):

PO 1- The candidate should be able to examine the patients requiring conservative and Endodontics therapy, investigate the patient systemically, analyse the investigation results, plan a treatment, communicate with the patient and execute it.

PO 2- Understand the prevalence and prevention of diseases of cranio-mandibular system related to Conservative dentistry and Endodontics.

PO 3- Identify target diseases and awareness amongst the population for Conservative and Endodontic therapy.

PO 4- Perform clinical and Laboratory procedure with understanding of biomaterials, related to esthetics and have competent dexterity and skill for performing clinical and laboratory procedures in esthetics, conservative and endodontics.

PO 5- Laboratory technique management based on skills and knowledge of Dental Materials and Dental equipment and instrument management.


Program Specific Outcome (PSO):

PSO 1- Able to understand and use various dental materials.

PSO2- Competent to carry out treatment of conservative, esthetic, smile design and Endodontics.

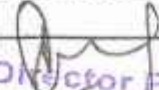
PSO 3- Able to carry out treatment of routine conservative and endodontic procedure.

PSO 4- Familiar with the concept of conservative treatment and the value of endodontic procedure.

  
Director Principal  
Surendra Dental College &  
Research Institute, SGNR

### Course Outcomes (CO)

|   |     |  |
|---|-----|--|
| Applied anatomy, physiology, pathology and dental materials | CO1 | Post graduate would be able to diagnose the cause of the ailment, formulate the treatment plan and communicate it with the patient to execute it.  |
|   | CO2 | The candidate would gain the thorough knowledge of applied basic and systematic medical sciences.  |
|   | CO3 | Examination and systematic investigation of patients requiring endodontic treatment along with interpretation of investigation results will be achieved by the post graduate   |
|   | CO4 | Utilization of various material and application in smile designing along with necessary repairing techniques   |
| Conservative Dentistry                                      | CO1 | Dental Caries and Age related changes and its conservative treatment will be attained by the candidate.  |
|   | CO2 | Demonstration of the skills by the candidate in restoring the lost functions of stomatognathic system which includes mastication, speech, appearance and psychological comforts by conservative approach.                          |
|   | CO3 | Post graduate will be able to deliver the treatment to the patients irrespective of social status caste, creed or religion by adopting ethical principals in conservative practice while fostering professional honesty integrity. |
|   | CO4 | Apt conservative care will be learned and adapted in their practice in treating the patients especially geriatric patients.  |
| Endodontics   | CO1 | Understanding the carious lesion, its prevalence and prevention related to endodontics by the post graduate.   |
|   | CO2 | Adapting new methods and techniques in endodontics based on scientific research that occurs from time to time in view of patient's best interest will be learned by the candidate.   |
|   | CO3 | Communication in patient's understandable language regarding the principals of endodontics will be adapted by the candidate.   |
|   | CO4 | Post graduate will be able to diagnose and analyses various possibilities of endodontic treatment keeping in view of the various situations and needs of the patients  |
| Essay   | CO1 | Gaining the knowledge, procedural and operative skills needed in master's degree in endodontics can be outlined by the post graduate.  |

  
 Director Principal  
 Surendra Dental College  
 Research Institute, SGNIS



|  |     |   |
|--|-----|---|
|  | CO2 | Ability to possess and apply the comprehensive knowledge will be attained by the candidate in all the sub branches. |
|--|-----|---|

**Course Part I: Applied anatomy, physiology, Pathology and Dental Materials**

|     | PO1 | PO2 | PO3 | PO4 | PO5 | PSO1 | PSO2 | PSO3 | PSO4 |
|-----|-----|-----|-----|-----|-----|------|------|------|------|
| CO1 | ✓   | ✓   | ✓   | ✓   | ✓   | ✓    | ✓    | ✓    | ✓    |
| CO2 | ✓   | ✓   |     |     |     |      |      |      |      |
| CO3 | ✓   | ✓   | ✓   |     |     |      | ✓    | ✓    |      |
| CO4 |     |     |     | ✓   |     | ✓    |      |      |      |

**Course Part II: Conservative Dentistry**

|     | PO1 | PO2 | PO3 | PO4 | PO5 | PSO1 | PSO2 | PSO3 | PSO4 |
|-----|-----|-----|-----|-----|-----|------|------|------|------|
| CO1 | ✓   | ✓   | ✓   |     |     |      | ✓    | ✓    | ✓    |
| CO2 |     |     |     | ✓   | ✓   |      | ✓    | ✓    | ✓    |
| CO3 |     |     |     | ✓   | ✓   |      | ✓    | ✓    | ✓    |
| CO4 |     |     |     | ✓   | ✓   |      | ✓    | ✓    |      |

**Course Part III –Endodontics**

|     | PO1 | PO2 | PO3 | PO4 | PO5 | PSO1 | PSO2 | PSO3 | PSO4 |
|-----|-----|-----|-----|-----|-----|------|------|------|------|
| CO1 | ✓   | ✓   | ✓   |     |     |      | ✓    |      |      |
| CO2 |     |     |     | ✓   | ✓   | ✓    | ✓    |      | ✓    |
| CO3 | ✓   | ✓   | ✓   |     |     |      |      |      | ✓    |
| CO4 | ✓   | ✓   | ✓   | ✓   |     |      | ✓    | ✓    | ✓    |

**Course Part IV –Essay**

|     | PO1 | PO2 | PO3 | PO4 | PO5 | PSO1 | PSO2 | PSO3 | PSO4 |
|-----|-----|-----|-----|-----|-----|------|------|------|------|
| CO1 | ✓   | ✓   | ✓   | ✓   | ✓   | ✓    | ✓    | ✓    | ✓    |
| CO2 | ✓   | ✓   | ✓   | ✓   | ✓   | ✓    | ✓    | ✓    | ✓    |

**6. PAEDIATRIC AND PREVENTIVE DENTISTRY – MDS/PEDO 16**

**PROGRAM OUTCOMES**

PO-1 The postgraduate should be able to create not only a good oral health in the child but also a good citizen tomorrow, instil a positive attitude and behaviour in children.

PO-2 The postgraduate should be able to understand the principles of prevention and preventive dentistry right from birth to adolescence

PO-3 The postgraduate should be able to guide and counsel the parents in regards to various treatment modalities including different facets of preventive, interceptive and therapeutic dentistry.

  
 Director Principal  
 Surendra Dental College &  
 Research Institute, SGRR




PO-4 The postgraduate should be able to obtain proper clinical history, methodological examination of the child patient, perform essential diagnostic procedures and interpret them and arrive at a reasonable diagnosis and treat appropriately.

PO-5 The postgraduate should be able to manage the disabled children effectively and efficiently, tailored to the needs of individual requirement and conditions; and acquire skills in managing efficiently emergency conditions with emphasis on basic life support measures.

#### COURSE OUTCOMES

|   |      | At the end of course, postgraduate should be able to   |
|---|------|--|
| Applied Basic Sciences  | CO 1 | Understand applied Anatomy, genetics, Applied Physiology, Applied Pathology, Nutrition, Dietics, Growth & Development, Cariology and Fluoride  |
|   | CO 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                     |
|   | CO 3 | Student should be able to describe aspects of research methodology and biostatistics   |
| Clinical Paedodontics   | CO 1 | Student should be competent to treat gingival and pulpal diseases which are occurring in child patient.  |
|   | CO 2 | Student should be able to manage the disabled children effectively and efficiently, tailored to the needs of individual requirement and conditions.  |
|   | CO 3 | Student should be able to acquire skills in managing efficiency life threatening condition with emphasis on basic life support measure.  |
|   | CO 4 | Student should able to assess and manage the behaviour of child using pharmacological methods during dental treatment  |
|   | CO 5 | Student should be able to diagnose, plan the treatment and manage the traumatic injuries and developing malocclusion.  |
| Preventive and Community Dentistry as applied to Paediatric Dentistry | CO 1 | Student should be able to assess the child behaviour and manage using non pharmacological behaviour management techniques, instilling a positive attitude and behaviour in children  |
|   | CO 2 | Student should able to implement the principles of prevention and preventive dentistry right from birth to adolescence in clinical as well as community setting.   |
|   | CO 3 | Student should able to guide and counsel the parents in regards to various treatment modalities including different facets of preventive dentistry   |
|   | CO 4 | Student should able to apply the principles of epidemiology and research methodology.  |
| Essay   | CO 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. |
|   | CO 2 | Student should be able to analyse and critically evaluate various aspects of preventive and clinical Paedodontics  |

  
 Director Principal  
 Surendra Dental College &  
 Research Institute, SGNR

**MAPPING**

**Course 1**

|      | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 |
|------|------|------|------|------|------|
| CO 1 | ✓    | ✓    | ✓    | ✓    |      |
| CO 2 |      | ✓    | ✓    |      |      |
| CO 3 |      | ✓    |      |      |      |

**Course 2**

|      | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 |
|------|------|------|------|------|------|
| CO 1 | ✓    | ✓    | ✓    | ✓    |      |
| CO 2 | ✓    | ✓    | ✓    | ✓    | ✓    |
| CO 3 |      |      |      | ✓    | ✓    |
| CO 4 | ✓    |      | ✓    |      | ✓    |
| CO 5 |      | ✓    | ✓    | ✓    | ✓    |

**Course 3**

|      | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 |
|------|------|------|------|------|------|
| CO 1 | ✓    |      | ✓    | ✓    | ✓    |
| CO 2 |      | ✓    | ✓    |      | ✓    |
| CO 3 |      | ✓    |      | ✓    |      |
| CO 4 |      | ✓    |      | ✓    |      |

**Course 4**


|      | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 |
|------|------|------|------|------|------|
| CO 1 | ✓    | ✓    | ✓    | ✓    | ✓    |
| CO 2 | ✓    | ✓    | ✓    | ✓    | ✓    |

**7. DEPARTMENT OF PROSTHODONTICS AND CROWN AND BRIDGE –  
MDS/PROSTHO17**

**Programme Outcomes (PO):**

PO 1- The candidate should be able to examine the patients requiring Prosthodontics therapy, investigate the patient systemically, analyse the investigation results, plan a treatment, communicate it with the patient and execute it.

PO 2- Understand the prevalence and prevention of diseases of craniomandibular system related to prosthetic dentistry.

  
 Director Principal  
 Surendra Dental College &  
 Research Institute, SGNR

PO 3- Identify target diseases and awareness amongst the population for Prosthodontic therapy.

PO 4- Perform clinical and Laboratory procedure with understanding of biomaterials, tissue conditions related to prosthesis and have competent dexterity and skill for performing clinical and laboratory procedures in fixed, removable, implant, maxillofacial, TMJ and esthetics Prosthodontics.

PO 5- Laboratory technique management based on skills and knowledge of Dental Materials and Dental equipment and instrument management.

**Program Specific Outcome (PSO):**

PSO 1- Able to understand and use various dental materials.

PSO 2- Competent to carry out treatment of conventional complete and partial removable dentures and fabricate fixed partial dentures.

PSO 3- Able to carry out treatment of routine prosthodontic procedures.

PSO 4- Familiar with the concept of osseointegration and the value of implant- supported prosthodontic procedures.

**Course Outcomes (CO):**

|   |     |  |
|---|-----|--|
| Applied anatomy, physiology, pathology and dental materials | CO1 | Post graduate would be able to diagnose the cause of the ailment, formulate the treatment plan and communicate it with the patient to execute it.  |
|   | CO2 | The candidate would gain the thorough knowledge of applied basic and systematic medical sciences.  |
|   | CO3 | Examination and systematic investigation of patients requiring prosthodontics treatment along with interpretation of investigation results will be achieved by the post graduate                           |
|   | CO4 | Utilization of various material and application in fabrication of dental prosthesis along with necessary repairing techniques  |
| Removable prosthodontics and oral implantology              | CO1 | Age related changes and its prosthodontics treatment related to removable prosthodontics and implantology will be attained by the candidate.   |
|   | CO2 | Demonstration of the skills by the candidate in restoring the lost functions of stomatognathic system which includes mastication, speech, appearance I and psychological comforts by removable prosthesis. |

  
Director Principal  
Surendera Dental College &  
Research Institute, SGNR



|                      |     |  |
|----------------------|-----|--|
|                      | CO3 | Post graduate will be able to deliver the treatment to the patients irrespective of social status caste, creed or religion by adopting ethical principals in prosthodontics practice while fostering professional honesty integrity. |
|                      | CO4 | Apt implantology care will be learned and adapted in their practice in treating the patients especially geriatric patients.  |
| Fixed prosthodontics | CO1 | Understanding the diseases of craniomandibular system, its prevalence and prevention related to fixed prosthodontics by the post graduate.   |
|                      | CO2 | Adapting new methods and techniques in fixed prosthodontics based on scientific research that occurs from time to time in view of patient's best interest will be learned by the candidate.  |
|                      | CO3 | Communication in patient's understandable language regarding the principals of fixed prosthodontics will be adapted by the candidate.  |
|                      | CO4 | Post graduate will be able to diagnose and analyses various possibilities of fixed prosthodontic treatment keeping in view of the various situations and needs of the patients   |
| Essay                | CO1 | Gaining the knowledge, procedural and operative skills needed in master's degree in prosthodontics can be outlined by the post graduate.   |
|                      | CO2 | Ability to possess and apply the comprehensive knowledge will be attained by the candidate in all the sub branches.  |

### CO-PO MAPPING

#### Applied anatomy, physiology, pathology and dental materials

|     | PO1 | PO2 | PO3 | PO4 | PO5 |
|-----|-----|-----|-----|-----|-----|
| CO1 | ✓   | ✓   | ✓   |     |     |
| CO2 |     | ✓   |     | ✓   | ✓   |
| CO3 | ✓   |     | ✓   |     |     |
| CO4 |     |     |     | ✓   | ✓   |

#### Removable prosthodontics and oral implantology

|     | PO1 | PO2 | PO3 | PO4 | PO5 |
|-----|-----|-----|-----|-----|-----|
| CO1 | ✓   | ✓   | ✓   | ✓   |     |
| CO2 |     | ✓   | ✓   |     |     |
| CO3 | ✓   | ✓   | ✓   | ✓   | ✓   |
| CO4 |     |     |     | ✓   | ✓   |

Director, Principal  
Surendera Dental College &  
Research Institute, SGNR



### Fixed prosthodontics

|     | PO1 | PO2 | PO3 | PO4 | PO5 |
|-----|-----|-----|-----|-----|-----|
| CO1 |     | ✓   | ✓   |     |     |
| CO2 |     |     |     | ✓   | ✓   |
| CO3 | ✓   |     |     |     |     |
| CO4 | ✓   | ✓   | ✓   | ✓   | ✓   |

### Essay

|     | PO1 | PO2 | PO3 | PO4 | PO5 |
|-----|-----|-----|-----|-----|-----|
| CO1 | ✓   | ✓   | ✓   | ✓   | ✓   |
| CO2 | ✓   | ✓   | ✓   | ✓   | ✓   |

## 8. DEPARTMENT OF PUBLIC HEALTH DENTISTRY – MDS/PHD 18


### Programme Outcomes (PO):

PO1: Elicit detailed Dental and relevant Medical history, perform an oral and general physical examination, and choose relevant laboratory diagnostic tests for identification of oral disorders, prevention of oral disease and promotion of oral health.

PO2: Demonstrate the ability to conduct oral health surveys, record history, and carry out 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

PO3: 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 as well as develop the planning, implementation, evaluation and administrative skills to carry out successful community Oral Health Programs.

PO4: Demonstrate knowledge of global and national needs, policies and regulatory frameworks relevant to oral health.



Director Principal  
Bhurendera Dental College &  
Research Institute, SGNR

PO5: Function effectively as an oral health care team member in health care settings.

PO6: Communicate effectively and sensitively with patients, care-givers, colleagues and the public in a manner that will improve health care outcomes and patient / client satisfaction.

PO7: Teach in both didactic and clinical areas of undergraduate. Conduct, present and publish research projects based on national and global needs.

PO8: Recognize and manage medico-legal, ethical and professional issues in dental practice.

**Program Specific Outcome (PSO):**

|      |   |
|------|---|
| PSO1 | Analysing and evaluating magnitude of disease and population profile of the target group and active planning of health care program for the community   |
| PSO2 | Thorough knowledge in role of primary and secondary contributing factors in dental caries initiation and progression  |
| PSO3 | Holistic training and expertise in integrating ecological and socio behavioural dimensions in to public health  |
| PSO4 | To provide preventive care in dentistry which includes pit and fissure sealant, topical fluorides, in a competent and ethical manner which will contribute to the oral health and general wellbeing of the individual and Community |
| PSO5 | CC1- mastering the art of preserving healthy tooth structure through prevention, remineralisation and minimal intervention  |
| PSO6 | CC2- Develop the skills to file a patent, publish, design the prototype and commercialize   |
| PSO7 | CC3- Design a research grant protocol and apply to an appropriate funding agent   |
| PSO8 | Understanding various forms of IPR, its relevance and business impact in the ever competitive global market including health care sector  |

**Course Outcomes (CO):**

|  |     |  |
|--|-----|--|
|  | CO1 | Apply basic sciences knowledge regarding aetiology, diagnosis and management of the prevention, promotion, and treatment of all the oral conditions at the individual and community level. |
|--|-----|--|

  
Director Principal  
Surendra Dental College &  
Research Institute, SGNR

|                        |     |  |
|------------------------|-----|--|
| Applied Basic Sciences | CO2 | 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. |
|                        | CO3 | To apply ethical and moral standards while carrying out epidemiological research.  |
|                        | CO4 | Be humble and accept the limitations in his knowledge and skill and to ask for help from colleagues when needed and promote teamwork approach.   |



**Director Principal**  
Tirumala Dental College &  
Research Institute, SGNR

|                      |     |  |
|----------------------|-----|--|
|                      | CO5 | Respect patient's rights and privileges including patients' right to information   |
| Public Health        | CO1 | Identify social, economic, environmental, and emotional determinants in each individual patient or a community for the purpose of planning and execution of Community Oral Health Program. |
|                      | CO2 | planning appropriate Community Oral Health Program conduct the program and evaluate at the community level.  |
|                      | CO3 | Develop the planning, implementation, evaluation, and administrative skills to carry out successful community Oral Health Programs.  |
|                      | CO4 | To apply ethical and moral standards while carrying out epidemiological research.  |
| Dental Public Health | CO1 | Ability to conduct Oral Health Surveys in order to identify all the oral health problems affecting the community and find solutions using multi-disciplinary approach.                     |
|                      | CO2 | Develop appropriate person power at various levels and their effective utilization.  |
|                      | CO3 | Conduct survey and use appropriate methods to impart Oral Health Education.  |
|                      | CO4 | Respect patient's rights and privileges including patients right to information and right to seek a second opinion.  |
| Essay                | CO1 | Identify social, economic, environmental, and emotional determinants in each individual patient or a community for the purpose of planning and execution of Community Oral Health Program. |
|                      | CO2 | Ability to make use of knowledge of epidemiology to identify causes and plan appropriate preventive and control measures.  |
|                      | CO3 | Develop the planning, implementation, evaluation, and administrative skills to carry out successful community Oral Health Programs.  |

  
 Director Principal  
 Surendera Dental College &  
 Research Institute, SGNR



**Dentistry Course: Part I - Applied**

**Basic Sciences**

|     | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| CO1 | ✓   |     |     |     |     | ✓   |     |     |
| CO2 |     | ✓   |     |     | ✓   |     |     |     |
| CO3 | ✓   |     |     |     |     |     |     | ✓   |
| CO4 |     |     |     | ✓   |     |     |     |     |
| CO5 |     |     |     |     |     | ✓   |     | ✓   |

**Course: Part II, Paper I - Public Health**


|     | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| CO1 | ✓   |     | ✓   |     |     |     |     |     |
| CO2 | ✓   |     |     | ✓   | ✓   |     |     | ✓   |
| CO3 | ✓   |     |     |     | ✓   |     |     |     |
| CO4 |     |     |     |     |     |     |     | ✓   |
| CO5 |     |     |     |     |     |     |     |     |
| CO6 |     |     |     |     |     |     |     |     |

**Course: Part II, Paper II - Dental Public Health**

|     | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| CO1 | ✓   |     | ✓   |     |     | ✓   |     |     |
| CO2 |     | ✓   |     |     | ✓   |     |     | ✓   |
| CO3 | ✓   |     | ✓   |     | ✓   |     | ✓   |     |
| CO4 |     |     | ✓   |     |     |     |     | ✓   |

**Course: Part II, Paper III- Essay**

|     | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| CO1 | ✓   |     | ✓   |     |     | ✓   |     |     |
| CO2 |     | ✓   |     | ✓   | ✓   |     |     | ✓   |
| CO3 | ✓   |     | ✓   |     |     |     |     |     |

  
Director Principal  
Surenendra Dental College &  
Research Institute, SGNR