

**Programme Structure**  
**School of Dental Sciences**  
**MDS**  
**(Master of Dental Surgery)**  
**Conservative Dentistry & Endodontics**  
**Programme Code: SDS0103**  
**Batch: 2023-2026**



**Programme Structure  
School of Dental Sciences  
Master of Dental Surgery (MDS)  
Batch: 2023-2026**

| S.No.                    | Paper ID | Subject Code | Subjects                       | Teaching Load |   |    | Type of Course-<br>1. CC 2. AECC<br>3. SEC 4. DSE |
|--------------------------|----------|--------------|--------------------------------|---------------|---|----|---|
|                          |          |              |                                | L             | T | P  |   |
| Theory Subjects          |          |              |                                |               |   |    |   |
| 1.                       | MDS304   | MDS304       | Conservative Dentistry And End | 0             | 3 | 45 | CC  |
| Practical/Viva-Voce/Jury |          |              |                                |               |   |    |   |
| 2.                       | MDS304   | MDS304       | Conservative Dentistry And End | 0             | 3 | 45 | CC  |

## Course



### 2.1 Module: Syllabus

|                              |  |  |
|------------------------------|--|--|
| <b>School:</b>               | <b>School of Dental Sciences</b>   |  |
| <b>Programme:</b>            | <b>Master of Dental Surgery - Conservative Dentistry and Endodontics</b>   |  |
| <b>Batch:</b>                | <b>2023-2026</b>   |  |
| <b>Course Code</b>           | <b>MDS304</b>  |  |
| <b>Credits</b>               | <b>NA</b>  |  |
| <b>Contact Hours (L-T-P)</b> | <b>0-3-45</b>  |  |
| <b>1. Course Type</b>        | Compulsory (CORE)  |  |
| <b>2. Course Objective</b>   | <p>1.1 To make the student understand the intricacies and relevance of basic sciences as applicable to conservative / restorative dentistry and Endodontics</p> <p>1.2. To make the student aware of infection control measures in the dental clinical environment and laboratories</p> <p>1.3. To imbibe in students the ethical principles in all aspects of restorative and contemporary Endodontics including non-surgical and surgical Endodontics</p> <p>1.4. To help the students develop communication skills, in particular to explain various options available management and to obtain a true informed consent from the patient</p> <p>2.1 To make the student sound in describing etiology, pathophysiology, diagnosis and management of common restorative situations, that will include contemporary management of dental caries, non-carious lesions and hypersensitivity.</p> <p>2.2 To train the student 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</p> <p>2.3 To train the student to perform all levels of restorative work including Aesthetic procedures and treatment of complicated restorative procedures</p> <p>3. to make the student to describe aetiology, pathophysiology, periapical diagnosis and management of common endodontic situations that will include</p> |  |

|   |                 |  |
|---|-----------------|--|
|   |                 | <p>contemporary management of trauma and pulpal pathoses including endo-periodontal pathoses</p> <p>4. To make the student sound in diagnosing, planning and executioning challenging clinical cases requiring comprehensive management strategies using contemporary materials and techniques in the specialty of conservative dentistry and endodontics</p>  |
| 3 | Course Outcomes | <p>The student will be able to:</p> <p>CO1: To make the student understand the intricacies and relevance of basic sciences as applicable to conservative / restorative dentistry and Endodontics</p> <p>CO2 To make the student aware of infection control measures in the dental clinical environment and laboratories</p> <p>CO1: To make the student sound in describing aetiology, pathophysiology, diagnosis and management of common restorative situations, that will include contemporary management of dental caries, non-carious lesions and hypersensitivity.</p> <p>CO2 To train the student 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</p> <p>CO3 To train the student to perform all levels of restorative work including Aesthetic procedures and treatment of complicated restorative procedures</p> <p>CO1: To make the student to describe aetiology, pathophysiology, periapical diagnosis and management of common endodontic situations that will include contemporary management of trauma and pulpal pathoses including endo-periodontal pathoses</p> <p>CO2: To imbibe in students the ethical principles in all aspects of restorative and contemporary Endodontics including non-surgical and surgical Endodontics</p> <p>CO1: To make the student sound in diagnosing, planning and executioning challenging clinical cases requiring comprehensive management strategies using contemporary materials and techniques in the specialty of conservative dentistry and endodontics</p> <p>CO2 To help the students develop communication skills, in particular to</p> |

|   |                    |  |
|---|--------------------|--|
|   |                    | explain various options available management and to obtain a true informed consent from the patient  |
| 4 | Course Description | The M. D. S. in Conservative Dentistry & Endodontics is three-year Postgraduate program. It is the branch of dentistry which deals with the treatment of caries, deformed, stained, nonesthetic, or broken teeth and endodontics deals with treatment of pulpal and periapical diseases and dental pain management. The curriculum provides training in the prevention and treatment of the disease and injuries of the hard tissues and the pulp of the tooth and associated periodical lesions. The purpose of the course is to provide advanced education in the subject to highly qualified graduate dentists who are interested in a career of specialized practice, teaching and research. |



|   |                  |                        |  |  |            |
|---|------------------|------------------------|--|--|------------|
| 8 | Outline syllabus |                        |   SHARDA UNIVERSITY<br>Beyond Boundaries<br><a href="http://www.sharda.ac.in">www.sharda.ac.in</a>   |  | CO Mapping |
|   | Unit 1           | APPLIED BASIC SCIENCES |  |  |            |
|   | A                | Topic 1                | Applied Anatomy of Head and Neck, Development of Teeth, Applied Physiology   |  | CO1,CO2    |
|   | B                | Topic 2                | Pathology, Pharmacology, Biostatistics   |  | CO1,CO2    |
|   | C                | Topic 3                | Research Methodology, Applied Dental Materials   |  | CO1, CO2   |
|   | UNIT 2           | CONSERVATIVE DENTISTRY |  |  |            |
|   | A                | Topic 1                | Examination, diagnosis and treatment plan, Occlusion, Dental caries, Hand and rotary cutting instruments, Infection control, Direct concepts in tooth preparation for amalgam, composite, GIC and restorative techniques, failures and management, Hand and rotary cutting instruments   |  | CO1, CO2   |
|   | B                | Topic 2                | Infection control, Direct concepts in tooth preparation for amalgam, composite, GIC and restorative techniques, failures and management, Indirect tooth-colored restorations- ceramic, inlays and onlays, veneers, crowns, recent advances in fabrication and materials, Impression procedures used for direct restorations, Cast metal restorations, Direct gold restorations, Recent advances in restorative materials and procedures. |  | CO1, CO2   |



|               |                    |   |  |
|---------------|--------------------|---|--|
|               |                    |   |  |
| <b>C</b>      | Topic 3            | Management of non-carious lesion restorative materials and procedures, Advance knowledge of minimal intervention dentistry Hypersensitivity, theories, causes and management, Lasers in Conservative Dentistry, CAD-CAM & CAD-CIM in restorative dentistry, Dental imaging and its applications in restorative dentistry, Principles of esthetics | CO1, CO2, CO3  |
| <b>UNIT 1</b> | <b>ENDODONTICS</b> |   |  |
| <b>A</b>      | Topic 1            | Rationale of Endodontics, Knowledge of internal anatomy, Dentin and pulp complex, Pulp and periapical pathology, Pathobiology of periapex   | CO1, CO2   |
| <b>B</b>      | Topic 2            | Diagnostic procedure, Case selection and treatment planning, Infection control procedures. Access cavity preparation, Endodontic instruments and instrumentation, Working length determination / cleaning and shaping of root canal system, Root canal irrigants and intra canal medicaments  | CO1  |
| <b>C</b>      | Topic 3            | Endodontic microbiology ,Obturing materials, various obturation techniques and recent advances, Traumatic injuries and management, Endodontic surgeries, recent developments, Endoperio interrelationship, Endo emergencies and management, Geriatric endodontics Lasers in endodontics, Endodontic radiology, Procedural errors in endodontics   | CO1  |
| <b>UNIT 4</b> | <b>LONG ESSAY</b>  |   |  |
| <b>A</b>      | Topic 1            | Basic Sciences, Applied Sciences, Biostatistics   | CO304.1.1, CO 304.1.2                                  |
| <b>B</b>      | Topic 2            | Conservative Dentistry, recent advances and application   | CO304.2.1, CO304.2.2, CO 304.2.3 CO 304.4.1 CO 304.4.2 |
| <b>C</b>      | Topic 3            | Endodontics, recent advances and application, Recent advances, Tissue Engineering   | CO 304.3.1, CO 304.3.2 CO304.4.2                       |



|    |                   |  |  |            |                                  |                                  |
|----|-------------------|--|--|------------|----------------------------------|----------------------------------|
| 1. | Course evaluation | Attendance   | Minimum 75% is Needed for both theory and clinical/practical                               |            |                                  |                                  |
|    |                   | Quizzes  | Taken every 2 months   |            |                                  |                                  |
|    |                   | Presentations  | Seminars, Journal Clubs, Case presentations, Thesis and Library Dissertation presentations |            |                                  |                                  |
|    |                   | Any Other  | Project based learning, flip learning, Assignments   |            |                                  |                                  |
|    |                   | End Term examination   | 700 Marks  | Theor y    | 1 <sup>ST</sup> YEAR – 100 Marks | 3 <sup>rd</sup> year – 300 marks |
|    |                   |  |  | Practi cal |                                  | 3 <sup>rd</sup> year – 300 marks |
|    |                   |  |  |            |                                  |                                  |
| 2. | Text book/s*      | 1. Sturdevant’s – Art and Science of Operative Dentistry<br>2. Pickard’s Manual of Operative Dentistry<br>3. Ingle’s Textbook of Endodontics<br>4. Cohen’s Pathways of the Pulp<br>5. Grossman’s Endodontic Practice |  |            |                                  |                                  |
|    |                   |  |  |            |                                  |                                  |
| 3. | Other References  | TED learning<br>EBSCOHOST<br>Various scientific articles from various sources  |  |            |                                  |                                  |
|    |                   |  |  |            |                                  |                                  |



### Mapping of Course Outcomes with PO's and PSO's



| CO's      | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PSO1 | PSO2 | PSO3 |
|-----------|-----|-----|-----|-----|-----|-----|------|------|------|
| CO304.1.1 | 2   | 1   | 2   | 2   | 3   | 2   | 3    | 2    | 2    |
| CO304.1.2 | 2   | 3   | 1   | -   | 2   | 3   | 1    | 2    | 1    |
| CO304.2.1 | 3   | 3   | 3   | 2   | 2   | 1   | 3    | 3    | 2    |
| CO304.2.2 | 3   | 3   | 2   | 2   | 2   | 2   | 3    | 3    | 3    |
| CO304.2.3 | 3   | 2   | 1   | 2   | 1   | 1   | 1    | 1    | 1    |
| CO304.3.1 | 3   | 2   | 1   | 1   | 2   | 1   | 2    | 2    | 1    |
| CO304.3.2 | 2   | 1   | 3   | 1   | 2   | 3   | 1    | 1    | -    |
| CO304.4.1 | 3   | 2   | 1   | 2   | 1   | 2   | 1    | 3    | 2    |
| CO304.4.2 | 2   | 1   | -   | 2   | 1   | 1   | -    | 1    | 2    |