FELLOWSHIP IN MICRO ENDODONTICS (FDS)

ABOUT THE UNIVERSITY

Malla Reddy Vishwavidyapeeth is a reputed educational institution located in Hyderabad, Telangana, India. Recognized as a "Deemed to be University under Distinct (Existing) Category," the university offers multidisciplinary programs in medical, dental, nursing, pharmaceutical sciences, engineering, and allied health sciences. The university emphasizes academic excellence, research, innovation, clinical proficiency, and global academic collaborations, contributing significantly to advanced healthcare education and training

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PROGRAM OVERVIEW

The Fellowship in Micro Endodontics (FDS) is a one-year advanced academic and clinical training program designed to develop high-level competency in modern endodontic practice using magnification, microsurgical techniques, and advanced technologies. The program focuses on precision-driven diagnosis, treatment planning, and execution of complex endodontic procedures.

Key Focus Areas:

- Dental operating microscope–assisted endodontics
- Advanced root canal treatment techniques
- Management of complex and failed endodontic cases
- Endodontic microsurgery
- Contemporary irrigation, obturation, and retreatment protocols
- Integration of CBCT, digital imaging, and rotary systems

The fellowship integrates didactic teaching with hands-on preclinical training, supervised clinical practice, and academic enrichment through a hybrid learning model.

PROGRAM EDUCATIONAL OBJECTIVES (PEOS)

Graduates of the program will be able to:

- **PEO1:** Demonstrate advanced proficiency in microscopic endodontic diagnosis and treatment.
- **PEO2:** Manage complex, retreatment, and surgical endodontic cases using evidence-based protocols.
- **PEO3:** Apply ethical, professional, and patient-centered principles in advanced endodontic care.
- **PEO4:** Integrate modern technologies, research evidence, and digital imaging into endodontic practice.

PROGRAM OUTCOMES (POS)

1. **Clinical Expertise:** Perform advanced endodontic procedures using magnification and microsurgical techniques.
2. **Treatment Planning Competence:** Formulate comprehensive treatment plans for complex endodontic cases.
3. **Evidence-Based Practice:** Apply contemporary research and clinical guidelines in endodontics.
4. **Digital & Technological Proficiency:** Utilize microscopes, CBCT, rotary systems, and digital workflows.
5. **Critical Thinking & Problem Solving:** Diagnose and manage procedural complications and failures.
6. **Communication & Professional Skills:** Effectively communicate treatment options, risks, and outcomes.
7. **Practice Management Skills:** Maintain clinical documentation, infection control, and quality standards.
8. **Lifelong Learning & Research Aptitude:** Engage in continuous professional development and clinical research.

COURSE OUTCOMES (COS)

- **CO1:** Understand the principles and applications of dental operating microscopes in endodontics.
- **CO2:** Perform advanced root canal treatments using modern instrumentation and magnification.
- **CO3:** Manage retreatment and complex anatomical variations effectively.
- **CO4:** Perform basic endodontic microsurgical procedures.
- **CO5:** Document, present, and critically evaluate endodontic clinical cases.

PROGRAM-SPECIFIC OUTCOMES (PSOS)

1. Demonstrate competency in microscope-assisted non-surgical and surgical endodontics.
2. Apply advanced irrigation, obturation, and retreatment protocols for predictable outcomes.
3. Integrate CBCT, digital imaging, and contemporary endodontic technologies in patient care.

PROGRAM DETAILS

- **Certificate Awarded by:** [University Name]
- **Program Duration:** One-Year Modular Fellowship
- **Mode of Delivery:** Hybrid (On-Campus + Online Learning)

ELIGIBILITY CRITERIA

- **Academic Qualification:** B.D.S. or equivalent from a recognized institution
- **Professional Registration:** Valid DCI or equivalent registration

KEY FEATURES

- Microscope-centered endodontic curriculum
- Competency-based preclinical and clinical training
- Live patient treatment under expert supervision
- Exposure to complex and retreatment cases
- Integration of CBCT and digital endodontics
- Emphasis on precision, ergonomics, and clinical excellence
- Research methodology and case documentation support

LEARNING OUTCOMES

KNOWLEDGE & UNDERSTANDING

- Principles of micro endodontics and magnification
- Root canal anatomy, variations, and pathology
- Materials, instruments, and technologies in modern endodontics

COGNITIVE SKILLS

- Advanced diagnostic reasoning
- Case selection and risk assessment

PRACTICAL & PROFESSIONAL SKILLS

- Microscope-assisted root canal procedures
- Retreatment and complication management
- Basic endodontic microsurgery

TRANSFERABLE SKILLS

- Patient communication and consent
- Clinical documentation and academic writing

PROGRAM STRUCTURE – 6 MODULES

Module	Focus Area
Module 1	Fundamentals of Micro Endodontics & Dental Operating Microscope
Module 2	Advanced Root Canal Instrumentation & Irrigation
Module 3	Obturation Techniques & Complex Anatomy
Module 4	Endodontic Retreatment & Complication Management
Module 5	Endodontic Microsurgery
Module 6	Comprehensive Case Management & Digital Integration

CURRICULUM MODULES – THEORY

Module	Key Topics Covered	Learning Outcomes
Module 1	Microscope principles, ergonomics, illumination	Understand micro endodontic fundamentals
Module 2	Rotary systems, irrigation activation	Perform advanced instrumentation
Module 3	Obturation systems, anatomical variations	Achieve predictable obturation
Module 4	Retreatment strategies, instrument retrieval	Manage failed cases
Module 5	Apicoectomy, retrograde filling	Perform basic microsurgery
Module 6	CBCT, documentation, case presentation	Deliver comprehensive care

ELABORATED PRACTICAL COURSEWORK

1. PRECLINICAL TRAINING

- Dental operating microscope handling and ergonomics
- Extracted tooth and simulation-based exercises
- Rotary instrumentation and obturation practice

2. SUPERVISED CLINICAL PROCEDURES

- Primary root canal treatments under magnification
- Retreatment cases
- Management of calcified and curved canals

3. CLINICAL OBSERVATION

- Observation of advanced endodontic and microsurgical cases

4. CASE EXECUTION & DOCUMENTATION

- Minimum 8–10 documented micro endodontic cases
- Digital imaging and follow-up records

5. RESEARCH & ACADEMIC WORK

- Journal clubs
- Case report preparation
- Literature review in micro endodontics

6. COMPREHENSIVE CASE PORTFOLIO

- Complete case documentation
- Panel presentation and evaluation

ASSESSMENT & CERTIFICATION

- Direct Observation of Procedural Skills (DOPS)
- OSCE
- Clinical logbook & portfolio assessment
- Case presentation and viva voce

DEPARTMENT RESPONSIBILITIES

- **Conservative Dentistry & Endodontics:** Academic teaching, clinical supervision, microsurgical training
- **Oral Radiology:** CBCT interpretation and imaging support

THIS FELLOWSHIP AIMS TO PRODUCE CLINICALLY CONFIDENT, ETHICALLY GROUNDED, AND TECHNOLOGICALLY ADEPT MICRO ENDODONTIC PRACTITIONERS.