FELLOWSHIP IN ENDODONTICS

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 across medical, dental, nursing, pharmaceutical sciences, engineering, and allied health sciences.

The university emphasizes **academic excellence, clinical proficiency, research innovation, digital integration, and global collaborations**, making it a leader in advanced healthcare education and skill-based training.

PROGRAM OVERVIEW

The **Fellowship in Endodontics** at Malla Reddy Vishwavidyapeeth is a structured one-year competency-based program focused on strengthening clinical expertise in:

- Diagnosis of pulpal and periapical diseases
- Treatment planning for endodontic and restorative cases
- Root canal therapy (single & multi-rooted)
- Retreatments and emergency pain management
- Endodontic instrumentation technologies
- Isolation techniques
- Endodontic microsurgery (observation)
- Post-endodontic restorations
- Digital workflows in Endodontics
- Evidence-based practice
- Case documentation and research skills

The program follows a **hybrid model** (Online + On-campus), with strong emphasis on preclinical skill development, supervised clinical work, and interdisciplinary exposure.

PROGRAM EDUCATIONAL OBJECTIVES (PEOS)

Graduates of this fellowship will be able to:

1. Deliver safe, accurate, and patient-centered endodontic care using foundational and advanced clinical skills.
2. Diagnose and manage common pulpal and periapical conditions with appropriate treatment planning.
3. Apply digital radiography, magnification tools, and modern endodontic materials.
4. Demonstrate ethical and evidence-based decision-making in endodontic procedures.

PROGRAM OUTCOMES (POS)

1. **Clinical Competence:** Perform single-rooted and multi-rooted root canal treatments with appropriate instrumentation and obturation.
2. **Diagnostic Accuracy:** Interpret radiographs and clinical findings to identify pulpal and periapical pathology.
3. **Evidence-Based Practice:** Apply scientific literature, clinical guidelines, and ethical principles.
4. **Digital & Technological Skills:** Use RVG, CBCT (observation), digital apex locators, rotary systems, and magnification.
5. **Problem-Solving:** Manage dental emergencies related to pain, swelling, trauma, and endodontic failures.
6. **Communication & Patient Management:** Counsel patients, communicate risks, obtain informed consent, and provide post-operative instructions.
7. **Practice Management:** Maintain documentation, sterilization, and infection control protocols.
8. **Lifelong Learning:** Engage in academic discussions, journal clubs, and continuous professional development.

COURSE OUTCOMES (COS)

- **CO1:** Diagnose pulpal and periapical diseases accurately using clinical tests and radiographs.
- **CO2:** Perform standard RCT procedures using modern techniques and clinical protocols.
- **CO3:** Integrate digital endodontic tools such as apex locators, rotary/endodontic motors, and RVG systems.
- **CO4:** Formulate comprehensive treatment plans for primary and retreatment cases.
- **CO5:** Document and present clinical cases using structured formats.

PROGRAM-SPECIFIC OUTCOMES (PSOS)

1. Perform routine endodontic procedures with proficiency in isolation, cleaning, shaping, and obturation.
2. Demonstrate competency in diagnosis, treatment planning, retreatment considerations, and pain management.
3. Interpret radiographs and CBCT images (observation) to support complex endodontic decision-making.

PROGRAM DETAILS

- **Certificate Awarded By:** Malla Reddy Vishwavidyapeeth
- **Program Duration:** One-Year Modular Fellowship
- **Mode:** Hybrid (On-campus + Online Academic Sessions)

ELIGIBILITY CRITERIA

- **Basic Qualification:** BDS or equivalent recognized by DCI
- **Registration:** Valid DCI registration or equivalent body

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KEY FEATURES

- Competency-based curriculum aligned with national standards
- Structured preclinical and clinical endodontic training
- Rotary and reciprocating endodontic systems
- Digital imaging & apex locator training
- Pain management & emergency endodontics
- Rubber dam isolation mastery
- Endodontic microsurgery (observation)
- Case documentation and academic presentations
- Advanced preclinical skill lab exposure
- Interdisciplinary coordination with restorative & prosthodontic departments

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LEARNING OUTCOMES

KNOWLEDGE & UNDERSTANDING

- Biology of the pulp, periapical tissues, and pathophysiology
- Endodontic materials, instrumentation systems, obturation methods

COGNITIVE SKILLS

- Evidence-based treatment planning
- Ethical reasoning in retreatment and complex cases

PRACTICAL & PROFESSIONAL SKILLS

- Clinical competency in endodontic procedures
- Radiographic interpretation and digital workflow

TRANSFERABLE SKILLS

- Communication, counseling, documentation

SUBJECT-SPECIFIC SKILLS

- Isolation, cleaning, shaping, obturation, emergency management
- Post-endodontic restoration considerations

PROGRAM STRUCTURE — 6 MODULES

Module	Focus Area
Module 1	Fundamentals & Endodontic Diagnosis
Module 2	Instrumentation & Irrigation Protocols
Module 3	Obturation, Restoration & Pain Management
Module 4	Endodontics in Anterior, Premolar & Molar Teeth
Module 5	Retreatment Principles & Complication Management
Module 6	Clinical Case Execution, Minor Surgical Exposure & Case Documentation

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CURRICULUM MODULES – THEORY

Module	Key Topics	Learning Outcomes
Module 1	Pulp biology, periapical pathology, diagnostic tests, radiographic interpretation	Diagnose pulpal/periapical disease
Module 2	Rubber dam, access opening, rotary/reciprocating systems, irrigation systems	Perform cleaning & shaping
Module 3	Obturation systems, pain management, post-endodontic restorations	Deliver complete endodontic care
Module 4	Anterior/premolar/molar RCT protocols	Perform multi-rooted RCTs

Module	Key Topics	Learning Outcomes
Module 5	Retreatment, perforation repair, instrument separation principles	Handle complexities & retreatments
Module 6	Case planning, documentation, emergency care, endodontic microsurgery (observation)	Perform supervised clinical cases

PRACTICAL COURSEWORK (ELABORATED)

1. PRECLINICAL TRAINING

- Access cavity preparation on extracted teeth
- Working length determination (manual & digital)
- Cleaning and shaping with rotary/reciprocating motors
- Obturation using cold lateral & thermoplasticized techniques
- Rubber dam application drills
- Preclinical retreatment models
- Digital radiographic interpretation
- Infection control and sterilization

2. SUPERVISED CLINICAL PROCEDURES

- Single-rooted & multi-rooted RCT
- Biomechanical preparation
- Obturation techniques
- Pain & emergency management
- Direct restorations after RCT
- Retreatment (selected cases)
- Post-endodontic restorations (core buildup)

3. CLINICAL OBSERVATION & ROTATIONS

- CBCT interpretation (observer)
- Endodontic microsurgery (apicoectomy – observation only)
- Retreatment under operating microscope (observation)

4. CASE EXECUTION & DOCUMENTATION

- Minimum case quota (as decided by department)
- Digital radiographs, step-by-step images
- Follow-up evaluation
- Reflexive journaling

5. RESEARCH & ACADEMIC SKILLS

- Journal club
- Seminars
- Clinical case review
- Evidence-based discussions

6. COMPREHENSIVE CASE PORTFOLIO

- 8–12 documented cases
- Presentation before faculty panel
- Evaluation on outcomes and communication skills

ASSIGNMENTS

- Literature review
- Radiograph interpretation assignment
- Endodontic case planning
- Reflective writing
- Case submission based on quota

DEPARTMENTAL RESPONSIBILITIES

- **Endodontics (Primary):** All endodontic procedures, pain management, retreatments
- **Conservative Dentistry:** Restorative procedures and post-endodontic restorations
- **Prosthodontics:** Post-endodontic crown preparation (observation)
- **Oral Surgery:** Emergency management, swelling, abscess drainage (observation only)

ASSESSMENT & CERTIFICATION

- DOPS
- OSCE
- Clinical logbook evaluation
- Case submission & viva
- Portfolio assessment

NAAC / UGC ANNEXURE TABLES

ANNEXURE I: PEO–PO MAPPING

PEO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
PEO1	✓	✓		✓	✓	✓	✓	
PEO2	✓	✓	✓	✓	✓		✓	
PEO3		✓	✓		✓	✓	✓	
PEO4		✓	✓	✓			✓	✓

ANNEXURE II: PO–PSO MAPPING

PO / PSO	PSO1	PSO2	PSO3
PO1	✓	✓	
PO2	✓		✓
PO3		✓	✓
PO4	✓		✓
PO5	✓	✓	✓
PO6	✓	✓	
PO7	✓	✓	
PO8		✓	✓

CO–PO–PSO MAPPING MATRIX

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3
CO1	✓	✓	✓		✓				✓	✓	✓
CO2	✓	✓		✓	✓		✓		✓	✓	
CO3		✓	✓	✓		✓	✓	✓	✓		✓
CO4	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓
CO5	✓	✓	✓	✓	✓	✓	✓	✓	✓		