

FELLOWSHIP IN LABORATORY MEDICINE

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 institution emphasizes academic excellence, clinical proficiency, innovation, and global collaborations, contributing significantly to advanced healthcare education and training.

PROGRAM OVERVIEW

The Fellowship in Laboratory Medicine is a specialized program designed to develop expertise in diagnostic laboratory sciences and their clinical applications. The program focuses on:

- Principles of clinical laboratory diagnostics
- Hematology, biochemistry, and microbiology investigations
- Interpretation of laboratory results for clinical decision-making
- Quality control and laboratory management
- Infection control and biosafety practices
- Advanced diagnostic technologies

The program integrates **theoretical learning, laboratory exposure, and hands-on training**, ensuring competency in diagnostic medicine.

PROGRAM EDUCATIONAL OBJECTIVES (PEOS)

Graduates will be able to:

1. Apply laboratory diagnostics in clinical decision-making.
 2. Perform and interpret laboratory investigations accurately.
 3. Maintain quality standards and safety in laboratory practices.
 4. Integrate laboratory findings with patient management.
-

PROGRAM OUTCOMES (POS)

1. **Diagnostic Expertise:** Perform and interpret laboratory tests across hematology, biochemistry, and microbiology.
2. **Clinical Correlation:** Integrate laboratory findings with clinical conditions.

3. **Quality Management:** Implement quality assurance and control protocols in laboratories.
4. **Laboratory Operations:** Manage laboratory workflows and diagnostic services.
5. **Infection Control:** Apply biosafety and infection control measures.
6. **Technological Proficiency:** Utilize modern diagnostic tools and technologies.
7. **Evidence-Based Practice:** Apply scientific evidence in laboratory medicine.

COURSE OUTCOMES (COS)

- **CO1:** Understand principles of laboratory medicine and diagnostics.
- **CO2:** Perform and interpret routine and advanced laboratory investigations.
- **CO3:** Apply quality control and laboratory management practices.
- **CO4:** Correlate laboratory findings with clinical diagnosis.
- **CO5:** Ensure biosafety and infection control in laboratory settings.

PROGRAM-SPECIFIC OUTCOMES (PSOS)

1. Demonstrate competency in diagnostic laboratory procedures and analysis.
2. Apply quality assurance and laboratory management techniques.
3. Integrate laboratory diagnostics with clinical care.

PROGRAM DETAILS

- **Certificate Awarded by:** Malla Reddy Vishwavidyapeeth
- **Program Duration:** One-Year Fellowship
- **Mode of Delivery:** Hybrid (Laboratory Training + Theoretical Learning + Hands-on Practice)

(Deemed to be University)

ELIGIBILITY CRITERIA

- **Academic Qualification:** MBBS / MD/DNB in Pathology / Biochemistry / Microbiology or related fields
- **Professional Requirement:** As per institutional and regulatory guidelines

KEY FEATURES

- Specialized training in laboratory diagnostics and clinical correlation
- Hands-on experience in hematology, biochemistry, and microbiology labs
- Focus on quality control and laboratory management

- Training in advanced diagnostic technologies
 - Emphasis on biosafety and infection control
 - Integration of laboratory findings with clinical practice
 - Evidence-based diagnostic approach
-

LEARNING OUTCOMES

KNOWLEDGE & UNDERSTANDING

- Comprehensive understanding of laboratory medicine and diagnostic sciences.
-

COGNITIVE SKILLS

- Analytical and interpretative skills in laboratory data evaluation.
-

PRACTICAL & PROFESSIONAL SKILLS

- Proficiency in laboratory techniques and diagnostic procedures.
 - Hands-on experience in laboratory operations and testing.
-

TRANSFERABLE SKILLS

- Documentation, reporting, and communication of diagnostic findings.
-

SUBJECT-SPECIFIC SKILLS

- Integration of laboratory diagnostics with clinical decision-making.
-

CURRICULUM MODULES – THEORY

- Principles of Laboratory Medicine
 - Hematology and Blood Analysis
 - Clinical Biochemistry and Metabolism
 - Microbiology and Infectious Diseases Diagnostics
 - Immunology and Serological Testing
 - Molecular Diagnostics and Advanced Techniques
 - Quality Control and Laboratory Management
 - Infection Control and Biosafety
 - Clinical Correlation of Laboratory Findings
 - Advances in Diagnostic Medicine
-

PRACTICAL COURSEWORK

- Hands-on training in hematology, biochemistry, and microbiology laboratories
- Performing routine and advanced diagnostic tests
- Interpretation of laboratory results for clinical cases
- Implementation of quality control protocols
- Infection control and biosafety practices
- Laboratory workflow and management exposure
- Case documentation and diagnostic reporting

CAREER OUTCOMES

Graduates of the Fellowship in Laboratory Medicine can pursue careers as:

- Laboratory Medicine Specialist
- Clinical Pathology Consultant
- Diagnostic Laboratory Manager
- Hospital Laboratory Specialist
- Clinical Research and Diagnostic Expert
- Academic and Teaching Roles in Laboratory Sciences

