FELLOWSHIP IN MUSCULOSKELETAL IMAGING

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, and allied health sciences. The institution emphasizes academic excellence, clinical expertise, innovation, and global collaboration in advancing healthcare education.

PROGRAM OVERVIEW

The Fellowship in Musculoskeletal Imaging is a one-year advanced program designed to provide specialized expertise in imaging of musculoskeletal disorders using advanced diagnostic modalities.

The program focuses on:
• MRI, CT, Ultrasound, and X-ray in musculoskeletal imaging
• Diagnosis of trauma, degenerative, inflammatory, and neoplastic conditions
• Imaging of sports injuries and soft tissue disorders
• Image-guided musculoskeletal interventions
• Role of imaging in surgical planning and post-operative assessment
• Multidisciplinary clinical approach
• Research in musculoskeletal imaging

The program integrates theoretical knowledge, clinical exposure, hands-on training, and research to develop comprehensive expertise.

PROGRAM EDUCATIONAL OBJECTIVES (PEOS)

Graduates will be able to:

1. Perform and interpret musculoskeletal imaging using multiple modalities.
2. Diagnose a wide range of musculoskeletal disorders.
3. Perform image-guided interventions safely and effectively.
4. Assist in surgical planning and post-operative imaging evaluation.
5. Manage sports injuries using advanced imaging techniques.
6. Collaborate with orthopedic and multidisciplinary teams.
7. Conduct research in musculoskeletal imaging.

PROGRAM OUTCOMES (POS)

1. **Imaging Expertise:** Master X-ray, CT, MRI, and ultrasound in musculoskeletal imaging.
2. **Diagnostic Competency:** Identify trauma, degenerative, inflammatory, and neoplastic conditions.
3. **Interventional Skills:** Perform image-guided injections, aspirations, and biopsies.
4. **Sports Imaging Expertise:** Diagnose and manage sports-related injuries.
5. **Surgical Support:** Contribute to surgical planning and follow-up imaging.
6. **Multidisciplinary Integration:** Work with orthopedic and clinical teams.
7. **Research Skills:** Advance knowledge in musculoskeletal imaging.

COURSE OUTCOMES (COS)

• CO1: Perform and interpret musculoskeletal imaging studies.
• CO2: Diagnose musculoskeletal trauma and diseases accurately.
• CO3: Perform image-guided interventions.
• CO4: Assist in surgical planning and evaluation.
• CO5: Apply imaging in sports injury management.

PROGRAM-SPECIFIC OUTCOMES (PSOS)

1. Demonstrate expertise in musculoskeletal imaging techniques.
2. Apply interventional radiology skills in musculoskeletal care.
3. Integrate imaging findings into orthopedic and clinical management.

PROGRAM DETAILS

• Certificate Awarded by: Malla Reddy Vishwavidyapeeth
• Program Duration: One-Year Fellowship
• Mode of Delivery: Clinical + Theoretical + Hands-on Training

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ELIGIBILITY CRITERIA

• Academic Qualification: MD in Radiology or equivalent
• Professional Requirement: As per institutional norms

KEY FEATURES

• Comprehensive training in musculoskeletal imaging modalities
• Hands-on exposure to MRI, CT, ultrasound, and X-ray
• Training in image-guided musculoskeletal interventions
• Focus on sports injury imaging and management
• Integration with orthopedic and surgical care
• Research-driven curriculum
• Multidisciplinary clinical exposure

LEARNING OUTCOMES

KNOWLEDGE & UNDERSTANDING

• Understanding of musculoskeletal anatomy, pathology, and imaging

COGNITIVE SKILLS

• Clinical decision-making in musculoskeletal disorders

PRACTICAL & PROFESSIONAL SKILLS

• Proficiency in imaging interpretation and interventional procedures

TRANSFERABLE SKILLS

• Team collaboration and communication in clinical settings

SUBJECT-SPECIFIC SKILLS

• Advanced musculoskeletal imaging and intervention techniques

CURRICULUM MODULES – THEORY

SEMESTER 1: FUNDAMENTALS OF MUSCULOSKELETAL IMAGING

• Introduction to Musculoskeletal Imaging
• Basic Imaging Techniques (X-ray, CT, MRI, Ultrasound)
• Normal Musculoskeletal Anatomy
• Trauma Imaging
• Degenerative Joint Diseases
• Clinical Rotations

SEMESTER 2: ADVANCED MUSCULOSKELETAL IMAGING & INTERVENTIONS

• Sports Injuries Imaging
• Imaging of Inflammatory Conditions
• Neoplastic Conditions
• Musculoskeletal Ultrasound
• Image-Guided Interventions
• Advanced MRI Techniques
• Research Project & Case Studies

PRACTICAL COURSEWORK

• X-ray, CT, MRI, and ultrasound interpretation
• Image-guided joint injections, aspirations, and biopsies
• Sports injury imaging and case discussions
• Clinical case presentations and logbook
• Research and dissertation

CAREER OUTCOMES

Graduates can pursue careers as:
• Musculoskeletal Radiologist
• Consultant Radiologist (Orthopedic Imaging)
• Sports Imaging Specialist
• Interventional MSK Radiologist
• Academic and Research Professional