

Course Title: Foundation Course on Imaging-Based Diagnostics

Duration: 1 Months

Target Audience: UG & PG students (Pharmacy, Biomedical, Electronics, Computer Science, and related fields)

Mode: Hybrid (Theory + Hands-on Practical Sessions)

Module 1: Imaging-Based Diagnostics (Week 2)

- Session 1: Principles of Medical Imaging – X-ray, CT, MRI, Ultrasound
- Session 2: AI & ML in Medical Imaging – Basics and Use Cases
- Session 3: Regulatory & Quality Aspects of Imaging-Based Diagnostics
- Practical: Hands-on with Open-Source Medical Imaging Software (e.g., 3D Slicer)

Module 2: Integration & Real-World Applications (Week 2)

- Session 1: Cloud & Edge Computing in Digital Health
- Session 2: Cybersecurity & Data Privacy in Imaging
- Session 3: Case Studies – Successful Imaging-Based Start-ups
- Practical: Developing a Prototype – AI-based Data Interpretation

Assessment & Certification

- Capstone Project: Students work in teams to develop an Imaging-base prototype.
- Final Presentation & Evaluation by Industry Experts.
- Certificate of Completion