GHA
GLOBAL HEALTHCARE
ACADEMY

Trieta
Sciences
Precision Diagnostics

DIGITAL PATHOLOGY

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Course Overview

As healthcare embraces digital transformation, pathology is entering a new era—one where slides become data and diagnostics become dynamic. This Digital Pathology certification course is crafted for professionals ready to bridge the gap between the microscope and machine learning. With a focus on virtual imaging, AI integration, and real-world clinical workflows, the program blends foundational knowledge with future-ready applications. Participants will gain the confidence to navigate, implement, and innovate within digital pathology—positioning themselves at the forefront of data-driven diagnostics.

Learning Objective

- To introduce the evolution and core concepts of digital pathology.
- To provide knowledge of whole slide imaging (WSI), digital scanners, and imaging principles
- To familiarize learners with image analysis tools and open-source platforms
- To introduce the role of AI and machine learning in pathology diagnostics
- To explain workflow design, data management, and LIS integration
- To create awareness of regulatory frameworks, ethical standards, and data privacy in digital pathology
- To provide foundational knowledge for developing and validating AI models in clinical pathology

Course Outcomes

- Demonstrate proficiency in handling digital pathology tools and WSI systems
- Analyze pathology images using software and interpret results accurately
- Integrate digital pathology into routine lab workflows, including LIS connectivity
- Identify appropriate AI techniques for pathology tasks and collaborate with data teams
- Evaluate and comply with international regulatory and ethical standards in digital pathology
- Develop a basic AI algorithm using clinical image data and assess its diagnostic relevance
- Contribute to digital transformation initiatives in clinical or research settings

Eligibility

- Practicing Pathologists
- Histology and Cytology Technicians
- Digital Scanning Technicians
- Pathology Residents and Assistants
- Research Scientists and Educators
- Algorithm and Software Engineers working in medical imaging
- Laboratory Informatics Specialists and personnel responsible for digital pathology workflows

Course Curriculum

- Introduction & History of Digital Pathology
- Basics of Pathology and Grossing
- Fundamentals of Imaging and WSI
- Components of Whole Slide Imaging Slide scanners, software, data management
- Introduction to Image Analysis
- Use Cases for Digital Pathology
- Basics of Computational Pathology Understanding digital image formats
- Practical Applications of AI in Digital Pathology
- Digital Pathology Workflow Design
- Best Practice Guidelines & Reporting
- Regulatory Requirements & Validation
- Ethical and Legal Considerations
- AI Models
- Lab tour and hands on digital pathology scanners
- Hands on developing an algorithm

Learning Methodology

Online

- Pre-recorded Online Sessions
- Interactive Modules
- Algorithm-Building Workshops
- Real-World Case Clinics
- Virtual Lab Tours

Offline

- Classroom-based interactive lectures by subject experts
- Case-based group discussions
- Hands-on workshops for pedigree drawing and risk assessment
- Supervised clinical observership
- Guided lab visits to molecular and cytogenetics laboratories

Course Mode	Course Duration	Course Fee
Offline	One Day	10,000/-
Online	2 Months	15,000/-

Above Mentioned course fee is exclusive of 18% GST

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