

AI CERTS™

# AI+ Doctor

Certification



# Executive Summary

The AI+ Doctor course is designed to provide healthcare professionals with a comprehensive understanding of the integration of artificial intelligence in clinical settings. Covering AI's role in diagnostics, patient care, and workflow optimization, this course equips clinicians with the knowledge to implement and evaluate AI tools effectively. Key topics include identifying department-specific use cases, integrating AI across patient care stages, evaluating AI performance, and ensuring regulatory compliance. The course also emphasizes understanding algorithmic bias, improving transparency, and ensuring ethical AI use. By the end, participants will be prepared to drive AI adoption, enhance clinical decision-making, and improve patient outcomes.



# Prerequisites

- **Basic Medical Knowledge:** Participants should have foundational knowledge of clinical practices, medical terminology, and patient care processes.
- **Familiarity with Healthcare Systems:** A basic understanding of healthcare systems, including electronic health records (EHRs) and patient workflows, will be beneficial.
- **Interest in Technology Integration:** A keen interest in exploring the intersection of AI and healthcare, along with a willingness to learn about AI applications in medical settings.
- **Data Literacy:** A basic understanding of data concepts, including data collection, analysis, and interpretation, is recommended for understanding AI models and metrics.
- **Problem-Solving Mindset:** Ability to approach challenges with a solutions-oriented mindset, especially when evaluating AI systems and adapting them to clinical settings.

# Exam Blueprint

Number  
of Questions

**50**

Passing  
Score

**35/50 or 70%**

Duration

**90 Minutes**

Format

**Online via AI  
Proctoring platform**

Question Type

**Multiple Choice/Multiple  
Response**

# Exam Overview

Module	Weight
<b>What is AI for Doctors?</b>	<b>9%</b>
<b>AI in Diagnostics &amp; Imaging</b>	<b>13%</b>
<b>Introduction to Fundamental Data Analysis</b>	<b>13%</b>
<b>Predictive Analytics &amp; Clinical Decision Support – Empowering Proactive Patient Care</b>	<b>13%</b>
<b>NLP and Generative AI in Clinical Use</b>	<b>13%</b>
<b>Ethical and Equitable AI Use</b>	<b>13%</b>
<b>Evaluating AI Tools in Practice</b>	<b>13%</b>
<b>Implementing AI in Clinical Settings</b>	<b>13%</b>
	<b>100%</b>

# Certification Modules

Module 1

## What is AI for Doctors?

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1.1 From Decision Support to Diagnostic Intelligence

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1.2 What Makes AI in Medicine Unique?

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## 1.3 Types of Machine Learning in Medicine

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## 1.4 Common Algorithms and What They Do in Healthcare

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## 1.5 Real-World Use Cases Across Medical Specialties

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## 1.6 Debunking Myths About AI in Healthcare

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## 1.7 Real Tools in Use by Clinicians Today

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## 1.8 Hands-on: Medical Imaging Analysis using MediScan AI

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### Module 2

## AI in Diagnostics & Imaging

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### 2.1 Introduction to Neural Networks: Unlocking the Power of AI

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### 2.2 Convolutional Neural Networks (CNNs) for Visual Data: Seeing with AI's Eyes

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### 2.3 Image Modalities in Medical AI: AI's Multi-Modal Vision

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### 2.4 Model Training Workflow: From Data Labeling to Deployment – The AI Lifecycle in Medicine

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### 2.5 Human-AI Collaboration in Diagnosis: The Power of Augmented Intelligence

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## 2.6 FDA-Approved AI Tools in Diagnostic Imaging: Trust and Validation

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## 2.7 Hands-on Activity: Exploring AI-Powered Differential Diagnosis with Symptoma

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### Module 3

## Introduction to Fundamental Data Analysis

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### 3.1 Understanding Clinical Data Types – EHRs, Vitals, Lab Results

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### 3.2 Structured vs. Unstructured Data in Medicine

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### 3.3 Role of Dashboards and Visualization in Clinical Decisions

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### 3.4 Pattern Recognition and Signal Detection in Patient Data

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### 3.5 Identifying At-Risk Patients via Trends and AI Scores

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### 3.6 Interactive Activity: AI Assistant for Clinical Note Insights

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## Module 4

# Predictive Analytics & Clinical Decision Support – Empowering Proactive Patient Care

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**4.1 Predictive Models for Risk Stratification – Sepsis and Hospital Readmissions**

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**4.2 Logistic Regression, Decision Trees, Ensemble Models**

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**4.3 Real-Time Alerts – Early Warning Systems (MEWS, NEWS)**

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**4.4 Sensitivity vs. Specificity – Metric Choice by Clinical Need**

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**4.5 ICU and ER Use Cases for AI-Triggered Interventions**

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## Module 5

# NLP and Generative AI in Clinical Use

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**5.1 Foundations of NLP in Healthcare**

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**5.2 Large Language Models (LLMs) in Medicine**

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## 5.3 Prompt Engineering in Clinical Contexts

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## 5.4 Generative AI Use Cases – Summarization, Counselling Scripts, Translation

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## 5.5 Ambient Intelligence: Next-Gen Clinical Documentation

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## 5.6 Limitations & Risks of NLP and Generative AI in Medicine

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## 5.7 Case Study: Transforming Clinical Documentation and Enhancing Patient Care with Nabla Copilot

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### Module 6

## Ethical and Equitable AI Use

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### 6.1 Algorithmic Bias – Race, Gender, Socioeconomic Impact

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### 6.2 Explainability and Transparency (SHAP and LIME)

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### 6.3 Validating AI Across Populations

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### 6.4 Regulatory Standards – HIPAA, GDPR, FDA/EMA Compliance

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### 6.5 Drafting Ethical AI Use Policies

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### 6.6 Case Study – Biased Pulse Oximetry Detection

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# Evaluating AI Tools in Practice

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## 7.1 Core Metrics: Understanding the Basics

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## 7.2 Confusion Matrix & ROC Curve Interpretation

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## 7.3 Metric Matching by Clinical Context

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## 7.4 Interpreting AI Outputs: Enhancing Clinical Decision-Making

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## 7.5 Critical Evaluation of Vendor Claims: Ensuring Reliability and Effectiveness

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## 7.6 Red Flags in Commercial AI Tools: Recognizing and Mitigating Risks

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## 7.7 Checklist: “10 Questions to Ask Before Buying AI Tools”

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## 7.8 Hands-on

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# Implementing AI in Clinical Settings

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## 8.1 Identifying Department-Specific AI Use Cases

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## 8.2 Mapping AI to Workflows (Pre-diagnosis, Treatment, Follow-up)

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## 8.3 Pilot Planning: Timeline, Data, Feedback Cycles

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## 8.4 Team Roles – Clinical Champion, AI Specialist, IT Admin

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## 8.5 Monitoring AI Errors – Root Cause Analysis

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## 8.6 Change Management in Clinical Teams

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## 8.7 Example: ER Workflow with Triage AI Integration

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## 8.8 Scaling AI Solutions Across the Healthcare System

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## 8.9 Evaluating AI Impact and Performance Post-Deployment

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# Certification Outcome

Upon completing the **AI+ Doctor** course, participants will gain a deep understanding of how artificial intelligence can be integrated into clinical practice to enhance diagnostics, patient care, and decision-making. Graduates will be proficient in identifying department-specific AI use cases, applying machine learning models, and evaluating AI tool performance in healthcare settings. They will also be equipped to address ethical considerations, regulatory compliance, and biases in AI applications. By the end of the course, participants will be prepared to drive AI adoption, improve clinical workflows, and contribute to AI-powered advancements in healthcare delivery.



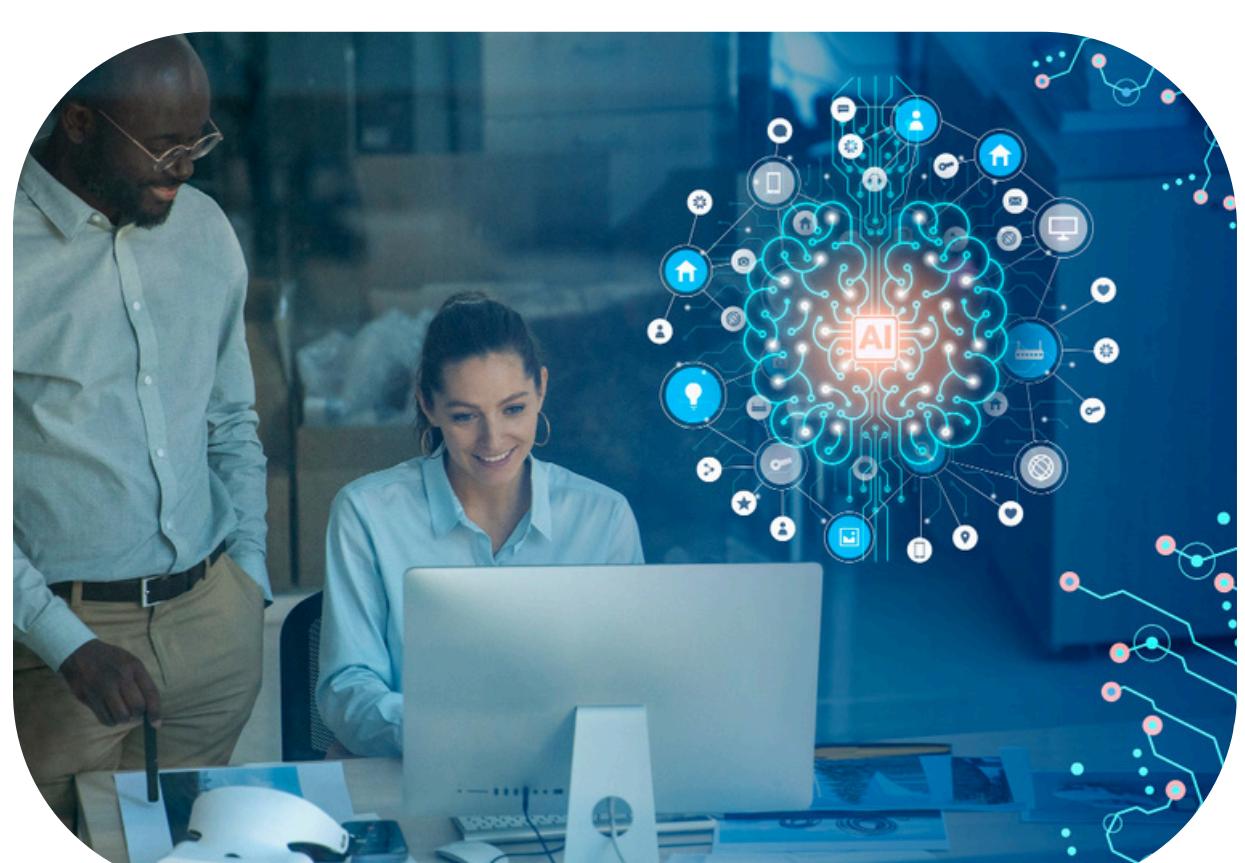
## Market Insight

The AI-driven healthcare market is rapidly growing, with increasing demand for AI applications in diagnostics, patient care, and clinical decision support. AI technologies are enhancing medical imaging, streamlining operations, and improving patient outcomes, creating substantial growth opportunities in healthcare.



## Value Proposition

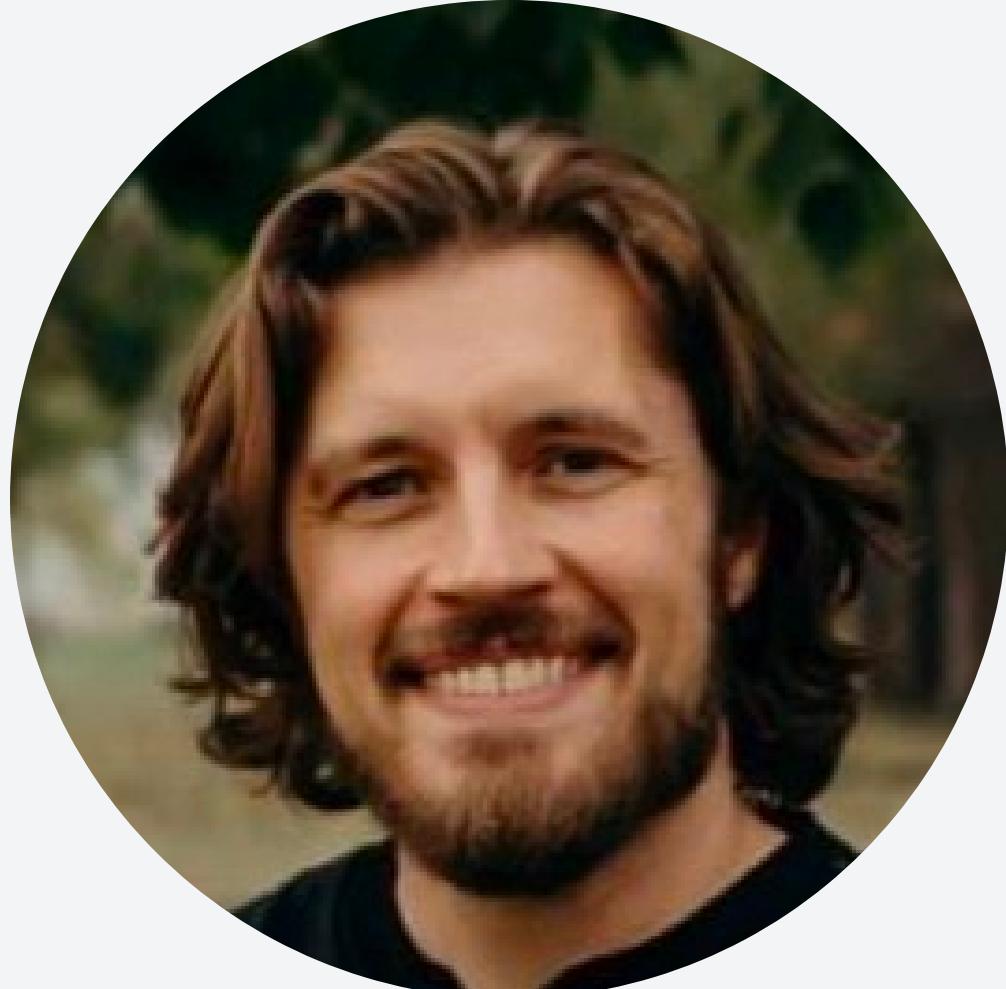
This course equips healthcare professionals with the skills to integrate AI into clinical workflows. Participants learn to optimize diagnostics, enhance decision-making, and improve patient care, empowering them to lead digital transformation in healthcare.



## Additional Features

The course offers hands-on projects, real-world case studies, and exposure to cutting-edge AI technologies like machine learning and natural language processing. Participants also gain practical experience with MLOps tools for AI model deployment and monitoring.

# AI Experts



## Jason Kellington

AI Expert

As a consultant, trainer, and technical writer with more than 25 years of experience in IT, I specialize in the development and delivery of solutions focused on effective and efficient enterprise IT.



## Justin Frébault

AI Expert

I'm a boutique data consultant specializing in data mesh and lakehouse solutions. I've dedicated my career to helping organizations transform their approach to data, moving beyond mere knowledge.



## J Tom Kinser

AI Expert

I have over forty years of experience in software development, data engineering, management, and technical training. I am a Microsoft Certified Trainer and a software developer, holding multiple certifications.



## Terumi Laskowsky

AI Expert

Country Manager for Global Consulting Services in Japan, Specialties: Information Security (Compliance, Policy, Application, Host, Network)



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### Contact

252 West 37th St., Suite 1200W  
New York, NY 10018

