KOENIG SOLUTIONS · COURSE OUTLINE

Healthcare AI: Azure Doc Intelligence & Copilots

50 Hours	10	28	10
DURATION	MODULES	TOPICS	HANDS-ON ACTIVITIES

COURSE OVERVIEW

This comprehensive course delves into the intersection of Python programming, AI, and business automation to equip learners with the skills needed to navigate regulatory challenges in industries like healthcare and pharma. Building on the basics of Python, students progressively explore advanced programming techniques, machine learning, natural language processing, and AI-driven regulatory compliance solutions. Hands-on projects foster practical understanding, including automating data processing, creating interactive dashboards, and building customized AI copilots for compliance tasks. The course also emphasizes leveraging tools like Azure Document Intelligence and Power BI to derive actionable business insights from unstructured regulatory data. Learning with real-world case studies and a final project, participants gain expertise in deploying end-to-end AI solutions tailored to regulatory requirements.

WHO THIS COURSE IS FOR

This course is tailored for professionals who work in industries like healthcare, pharmaceuticals, or other heavily regulated sectors, where compliance and risk management are critical

It's ideal for data scientists, regulatory analysts, compliance officers, and IT specialists looking to enhance their Python programming skills and apply AI-driven solutions to automate workflows and streamline regulatory processes

Additionally, the course welcomes business leaders and decision-makers who want to harness AI tools to extract actionable insights from unstructured data and drive automation in regulatory contexts

Prior experience with basic programming concepts and familiarity with regulatory environments is recommended, though not mandatory

LEARNING OBJECTIVES

What You Will Learn

- Apply Python fundamentals and data structures to automation tasks
- Process and transform data using Pandas, NumPy and APIs
- Explain machine learning and NLP concepts for compliance use cases
- Build models for entity recognition and classification in documents
- Extract key entities from documents using Azure Document Intelligence
- Create interactive dashboards for regulatory analytics with Power BI
- Develop custom AI copilots using GPT, Claude and Gemini
- Deploy AI assistants and automation workflows for regulatory reporting

COURSE SYLLABUS

10 Modules, 28 Topics

01

Hands-on

Foundations of Python for AI

TOPICS

- Introduction to Programming & Python Basics
- Data Types, Control Structures & Functions
- **Working with Data:** Lists, Dictionaries, and JSON

02

Hands-on

Advanced Python for AI & Business Applications

TOPICS

File Handling & Working with APIs · Data Processing with Pandas & NumPy · Automating Data Extraction & Transformation

03

Hands-on

Introduction to AI: Machine Learning & NLP

TOPICS

- Understanding AI in Regulatory Context
- Machine Learning for Compliance & Risk Assessment
- Natural Language Processing (NLP) for Document Understanding

04

Hands-on

Building AI Solutions for Regulatory Compliance

TOPICS

- Entity Recognition & Classification in Regulatory Documents
- Supervised vs. Unsupervised Learning for Compliance
- **ML Workflow:** Data Processing, Model Training, & Evaluation

05

Hands-on

Extracting Business Insights with Azure Document Intelligence

TOPICS

- Understanding Document AI & OCR Technologies
- Extracting Key Entities from Dossier & Healthcare Documents
- Processing Unstructured Data for Regulatory Analysis

06

Hands-on

Data Visualization & Regulatory Analytics

TOPICS

- Introduction to Data Visualization & Power BI
- Transforming Raw Regulatory Data into Actionable Insights
- Creating Interactive Dashboards for Regulatory Decision-Making

07

Hands-on

AI-Driven Business Automation in Healthcare

TOPICS

- Automating Workflows for Drug Approval Processes
- Connecting Data Sources for Seamless Regulatory Reporting
- AI-Driven Decision Making & Compliance Automation

08

Hands-on

Developing Custom AI Copilots (Part 1)

TOPICS

- What is a Copilot? AI Assistants for Healthcare & Pharma
- **Understanding LLMs:** GPT, Claude, Gemini & More
- Training & Customizing AI Assistants for Regulatory Needs

09

Hands-on

Developing Custom AI Copilots (Part 2)

TOPICS

- Enhancing AI Copilots with Business-Specific Regulatory Data
- Integrating AI Assistants into Healthcare & Pharma Workflows
- Deploying & Managing AI Assistants in Regulatory Contexts

10

Final Hands-on

Final AI Project & Industry Case Studies

TOPICS

Case Study Discussion

HANDS-ON ACTIVITIES

Practise What You Learn

#	MODULE	ACTIVITY
01	**Foundations of Python for AI**	**Hands-on:** Writing Simple Automation Scripts for Document
02	**Advanced Python for AI & Business Applications**	**Hands-on:** Automating Regulatory Data Processing Tasks
03	**Introduction to AI: Machine Learning & NLP**	**Hands-on:** Extracting Meaning from Regulatory Texts
04	**Building AI Solutions for Regulatory Compliance**	**Hands-on:** AI-Driven Risk & Compliance Monitoring
05	**Extracting Business Insights with Azure Document Intelligence**	**Hands-on:** Automating Document Review for Regulatory Compliance
06	**Data Visualization & Regulatory Analytics**	**Hands-on:** Visualizing AI Predictions for Regulatory Compliance
07	**AI-Driven Business Automation in Healthcare**	**Hands-on:** Automating Regulatory Report Generation
08	**Developing Custom AI Copilots (Part 1)**	**Hands-on:** Creating an AI-Powered Compliance Assistant
09	**Developing Custom AI Copilots (Part 2)**	**Hands-on:** Implementing an AI-Powered Regulatory Query System

#	MODULE	ACTIVITY
10	**Final AI Project & Industry Case Studies**	**Final Hands-on:** Deploying a Business AI Solution for Data Extraction using AI

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

ABOUT KOENIG

Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

FLEXIBLE DELIVERY

Learn the Way That Suits You

Classroom Training | Live Online Classes (ILO) | Fly-Me-A-Trainer (FMAT) | Flexi (Self-Paced) | 1-on-1 Training

Ready to Get Started?

Talk to a learning advisor about schedules, group training and customised delivery.

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