60-Hour Lesson Planner (AI)

Python Basics – 4 Hours

• Hour 1: Variables, Data Types, Input/Output

• Hour 2: Lists, Tuples

• Hour 3: Sets, Dictionaries

• Hour 4: Basic Programs & Practice

Python ML Libraries – 4 Hours

• Hour 5: NumPy – Arrays, Indexing, Operations

• Hour 6: Pandas – Series, DataFrame Basics

• Hour 7: Pandas – Data Cleaning, Aggregations

• Hour 8: Matplotlib, Seaborn, Other ML Libraries (overview)

Statistics for AI – 6 Hours

• Hour 9: Measures of Central Tendency

• Hour 10: Measures of Dispersion

• Hour 11: Probability Basics

• Hour 12: Distributions

• Hour 13: Permutations & Combinations

• Hour 14: Inferential Statistics & Hypothesis Testing

Machine Learning Algorithms – 5 Hours

• Hour 15: Decision Trees

• Hour 16: Linear Regression

• Hour 17: Logistic Regression

• Hour 18: Support Vector Machines (SVM)

• Hour 19: Clustering (K-Means & overview of other clustering)

Machine Learning Problems (Applications) – 5 Hours

• Hour 20: ML Problem Solving – Dataset Walkthrough

• Hour 21: Linear Regression Problem

• Hour 22: Classification Problem (Logistic/Decision Tree)

• Hour 23: SVM Problem

• Hour 24: Clustering Problem

Deep Learning & Neural Networks – 4 Hours

• Hour 25: Neural Network Structure & ANN

• Hour 26: Convolutional Neural Network (CNN) Basics

• Hour 27: Recurrent Neural Network (RNN)

• Hour 28: Practice Problem (ANN/CNN/RNN)

Associate AI Tools & Technologies – 5 Hours

• Hour 29: Introduction to AI Tools

• Hour 30: Computer Vision Basics (OpenCV)

• Hour 31: NLP Basics

• Hour 32: Pytorch Basics

• Hour 33: End-to-End Example (Computer Vision/NLP)

Generative AI – 5 Hours

• Hour 34: Introduction to Generative Models

• Hour 35: Autoencoders – Basics & Applications

• Hour 36: Generative Adversarial Networks (GANs)

• Hour 37: Text Generation Models (RNNs, LSTMs, Transformers)

• Hour 38: Conditional Generation Models

SQL, Tableau & Power BI – 6 Hours

• Hour 39: SQL – Select, Where, Aggregate Functions

• Hour 40: SQL – Joins, Views, Triggers

• Hour 41: Tableau – Data Importing, Dimensions, Measures

• Hour 42: Tableau – Dashboards

• Hour 43: Power BI – Dashboarding Basics

• Hour 44: Power BI – Advanced Dashboards

Aptitude Series – 6 Hours

• Hour 45: Series Filling & Blood Relations

• Hour 46: Directions & Clocks

• Hour 47: Calendars

• Hour 48: Time and Distance

• Hour 49: Time and Work

• Hour 50: Charts & Practice

Projects (AI, ML, DL) – 10 Hours

• Hour 51: Weather Data Classification

• Hour 52: Car Advertising Analysis

• Hour 53: Marriage Prediction

• Hour 54: Divorce Prediction

• Hour 55–56: Recommendation System (Part 1 & 2)

• Hour 57–60: Mini Capstone Project – Integration & Review