

**SkillNexa AI Academy**

**AI Foundations**

**Introduction to Artificial Intelligence & Intelligent Systems**

**Program Level:** Foundation  
**Total Duration:** 96 Hours  
**Delivery:** Cohort-Based + Instructor-Led + Hands-On Labs  
**Pathway:** Foundation

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**PROGRAM GOAL**

The AI Foundations program introduces students to the world of artificial intelligence through **concepts, programming, data, hands-on activities, and project-based learning**.

Students progress from understanding what AI is to creating a simple AI-enabled application concept.

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**PROGRAM STRUCTURE**

| Module   | Topic                      | Hours    |
|----------|----------------------------|----------|
| Module 1 | Introduction to AI         | 16       |
| Module 2 | Python Programming for AI  | 24       |
| Module 3 | Data Fundamentals          | 20       |
| Module 4 | AI Ethics & Responsible AI | 16       |
| Module 5 | AI Foundation Project      | 20       |
| Total    |                            | 96 Hours |

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## **Course Curriculum**

### **MODULE 1 — INTRODUCTION TO ARTIFICIAL INTELLIGENCE**

#### **1.1 Understanding Artificial Intelligence**

##### **Lab 1.1**

#### **1.2 History of Artificial Intelligence.**

##### **Lab 1.2**

#### **1.3 Types of Artificial Intelligence**

##### **LAB 1.3**

#### **1.4 How Intelligent Systems Work**

##### **LAB 1.4**

#### **1.5 AI Applications**

##### **LAB 1.5**

#### **1.6 Module Project**

### **MODULE 1 ASSESSMENT**

### **MODULE 2 — PYTHON PROGRAMMING FOR AI**

#### **2.1 Introduction to Python**

##### **LAB 2.1**

#### **2.2 Variables & Data Types**

##### **LAB 2.2**

## **2.3 Input & Output**

### **LAB 2.3**

## **2.4 Conditions & Decision Making**

### **LAB 2.4**

## **2.5 Loops**

### **LAB 2.5**

## **2.6 Functions**

### **LAB 2.6**

## **2.7 Python Libraries**

### **LAB 2.7**

## **2.8 Python for AI**

### **LAB 2.8**

## **2.9 Python Mini Project**

## **MODULE 2 ASSESSMENT**

## **MODULE 3 — DATA FUNDAMENTALS**

## **3.1 Understanding Data**

### **LAB 3.1**

## **3.2 Structured & Unstructured Data**

### **LAB 3.2**

### **3.3 Data Collection**

#### **LAB 3.3**

### **3.4 Introduction to Datasets**

#### **LAB 3.4**

### **3.5 Data Visualization**

#### **LAB 3.5 — Create Data Visualizations**

### **3.6 Data Analysis Project**

## **MODULE 3 ASSESSMENT**

## **MODULE 4 — AI ETHICS & RESPONSIBLE AI**

### **4.1 AI Bias**

#### **LAB 4.1**

### **4.2 AI & Privacy**

#### **LAB 4.2**

### **4.3 Responsible AI**

#### **Lab 4.3**

### **4.4 AI Safety**

#### **LAB 4.4**

### **4.5 Responsible AI Project**

## **MODULE 4 ASSESSMENT**

## **MODULE 5 — AI FOUNDATION PROJECT**

### **5.1 AI Project Ideation**

#### **LAB 5.1**

### **5.2 AI Solution Architecture**

#### **LAB 5.2**

### **5.3 Prototype Development**

### **5.4 Testing & Evaluation**

#### **LAB 5.4**

### **5.5 AI Project Documentation**

### **5.6 Final AI Presentation**

## **MODULE 5 ASSESSMENT**

## **FINAL ASSESSMENT**