

BQ-009



ESSENTIALS OF ARTIFICIAL INTELLIGENCE

2nd EDITION



LEARN AI SHAPE THE FUTURE

Duration: 3 Months

● on-campus classes

www.banoqabil.org

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Course Title: Essentials of Artificial Intelligence (AI)	
Course Code:	BQ-009
Duration:	12 Weeks
Class Structure	
Total Hours:	48 Hours
Total Sessions:	24 Sessions (Two sessions per week or as per convenience)
Session Duration:	2 Hours

1. Program Overview:

The Essential of AI Program is thoughtfully designed to provide students with a strong foundation in Artificial Intelligence, along with the practical skills needed to navigate and contribute to the rapidly evolving AI landscape. The program adopts a hands-on, application-based approach, enabling learners to engage with real-world challenges through interactive modules, projects, and case studies.

By covering key topics such as AI fundamentals, Natural Language Processing (NLP), Computer Vision, Generative AI, and the use of no-code/low-code AI tools, the program offers a comprehensive understanding of core AI domains and their practical implications. Students will learn to build simple AI solutions using accessible platforms, work with localized datasets, and understand the ethical considerations of deploying AI in real-world environments.

Through end-of-module assignments and capstone projects, students will not only strengthen their technical capabilities but also explore how to monetize their AI skills via freelancing, employment, or entrepreneurial ventures. By the end of the program, participants will be equipped to apply AI in meaningful ways—both locally and globally—across a range of industries and use cases.

2. Course Objectives:

By the end of this course, participants will be able to:

- Understand core AI concepts, types, and applications in global and Pakistani contexts.
- Build functional AI solutions using no-code/low-code tools and localized datasets.
- Implement projects in NLP, Computer Vision, and Generative AI while addressing ethical considerations.
- Apply AI in business, freelancing, and entrepreneurship, and present projects professionally.

3. Learning Outcomes:

By the end of this course, participants will be able to:

- Understand AI concepts, domains, and their impact globally and in Pakistan.
- Build real-world AI solutions with no-code/low-code tools and localized datasets.
- Apply Generative AI and basic model training for creative, commercial, and practical use cases.

- Address ethical considerations and integrate AI into workflows, businesses, and digital products.

4. Assessment Criteria

- Attendance & Participation: 15%
- Quiz: 20%
- Assignments & Projects: 25%
- Final Portfolio + Presentation: 40%

5. Course Outline Breakup

- **Session Focus:**
 - Mission, Vision & Values Alkhidmat Foundation Pakistan & Bano Qabil Pakistan
 - Course Structure
 - Rules & Regulations of Alkhidmat BQ IT Center
 - Success Stories & Project Impact
 - Expectations from Students

Week-1: Introduction to AI & Its Relevance in Pakistan

A. Session-1: What is AI? History and Real-World Applications

- Definition of Artificial Intelligence
- History and evolution of AI
- AI's role in everyday life
- Global vs. Pakistani AI developments

B. Session-2: AI Types, Key Terms & Local Case Studies

- Types of AI: Narrow AI vs. General AI
- Core AI concepts: data, algorithm, model, training

C. Case studies: Careem, Easypaisa, Bykea, Sehat Kahani, Tello Talk

D. Group discussion: "The role of AI in Pakistan's future"

E. Assignment: Write a 1-page report on a Pakistani startup using AI

F. Quiz: AI Basics & Relevance in Pakistan

G. Trainer Reference Links: Google AI – Intro, AI in Pakistan Case Studies

Week-2: AI Fundamentals (Simplified)

A. Session-3: Machine Learning Basics

- What is Machine Learning?
- Real-life examples in daily life
- Supervised vs. Unsupervised Learning (with analogies)

B. Session-4: How AI Learns with Data

- Data collection process
- How algorithms use data
- Interactive demo with Teachable Machine

C. Assignment: Build an image/audio classifier in Teachable Machine and share results

D. Quiz: Machine Learning Basics

E. Trainer Reference Links: Google Teachable Machine, ML for Beginners

Week-3: AI Tools & Platforms (No-Code) A. Session-5: Text-Based AI Tools - Overview: ChatGPT, Gemini, Claude, Meta AI, Mistral - Using AI for writing, summarizing, and ideation B. Session-6: Media Generation Tools - Image tools: DALL-E, Bing Image Creator - Video tools: Runway, Pictory, Pika Labs, Synthesia - Hands-on chatbot creation with Landbot/Botpress C. Assignment: Create a chatbot for a small business idea and present it D. Quiz: AI Tools Overview E. Trainer Reference Links: OpenAI, Landbot Tutorials	Week-4: Data & AI – The Fuel for AI A. Session-7: Understanding Data - Definition & types of data - Examples from Pakistan (traffic, health, sports) B. Session-8: Data Processing for AI - Data cleaning basics - Using charts and tables to understand datasets - Hands-on dataset analysis in Google Sheets C. Assignment: Download a dataset and create 2 insights with charts D. Quiz: Data Basics E. Trainer Reference Links: Google Sheets for Data Analysis, Data Cleaning Basics
Week-5: Natural Language Processing (NLP)/ Soft Skills A. Session-9: NLP Basics - What is NLP - Applications in Pakistan (Urdu chatbots, voice assistants) B. Session-10: Sentiment Analysis - How AI understands emotions in text - Hands-on text analysis with Hugging Face or Google AI Studio C. Assignment: Analyze positive vs. negative tweets about PSL D. Quiz: NLP Basics Trainer Reference Links: Hugging Face, Google AI Studio	Week-6: Computer Vision – AI That Sees/ Soft Skills A. Session-11: Computer Vision Basics - Applications in agriculture, security, healthcare - How AI detects and classifies objects B. Session-12: Image Classification Hands-On - Training models in Teachable Machine - Testing and improving accuracy C. Assignment: Train a model to recognize 2–3 local objects D. Quiz: Computer Vision Basics Trainer Reference Links: Teachable Machine, OpenCV Intro

Week-7: Generative AI – Create with AI/ Soft Skills A. Session-13: Introduction to Generative AI - Text, image, and video generation - Use cases for content creation B. Session-14: Prompt Engineering Basics - How to write effective prompts - Hands-on with ChatGPT & DALL·E for marketing material C. Assignment: Create 1 image, 1 post, and 1 video for a business idea D. Quiz: Generative AI Basics E. Trainer Reference Links: OpenAI, Prompt Engineering Guides	Week-8: Ethics & Responsible AI/ Soft Skills A. Session-15: Ethical Challenges in AI - Bias, misinformation, deepfakes - Real cases in Pakistan B. Session-16: Responsible AI Practices - AI laws and regulations - Best practices for ethical AI usage C. Assignment: Group report on AI ethics issue + 3 solutions D. Quiz: AI Ethics Basics E. Trainer Reference Links: Responsible AI Principles, Pakistan AI Policy
Week-9: AI in Business & Pakistan’s Economy/ Soft Skills A. Session-17: Industry - AI in Industry - How Pakistani companies use AI to grow - Small business applications B. Session-18: AI Automation - AI Automation Tools for Entrepreneurs - Zapier, Notion AI, ClickUp, chatbots for automation C. Assignment: Presentation on how AI can help a local business D. Quiz: AI in Business Basics E. Trainer Reference Links: Business AI Tools, SME AI Case Studies	Week-10: Building AI Applications (Beginner-Friendly)/ Soft Skills A. Session-19: Planning - Project Planning for AI Apps - Choosing use cases - Setting objectives and scope B. Session-20: No-Code AI App Development - Using Thunkable or similar tools - Connecting AI APIs without coding C. Assignment: Build a basic AI app and share a demo D. Quiz: AI App Development Basics E. Trainer Reference Links: Thunkable Tutorials, API Integration Basics
Week-11: Final Project Development/ Soft Skills A. Session 21–22: Group Work with Mentor Guidance - Finalizing AI projects - Testing & refining applications B. Assignment: Submit final project plan and working prototype C. Quiz: None Trainer Reference Links: Project Management Basics	Week-12: Final Project & Career Guidance/ / Soft Skills A. Session-23: Selling AI Skills - Freelancing, LinkedIn, local client acquisition - Personal branding B. Session-24: Career Paths & Project Presentations - AI jobs, internships, startups, incubators - Project showcase, peer feedback, certification C. Assignment: Fiverr/Upwork profile + LinkedIn project showcase D. Trainer Reference Links: Freelancing Guides, AI Career Resources

Note: 01-hour Soft Skills Session will be conducted weekly from **Week 05 to Week 12**.

6. Guest Session: Experienced freelancer/digital professional