AI+ Foundation (4 Hours)

Program Detailed Curriculum

Executive Summary

The AI+ Foundation course provides a comprehensive learning to Artificial Intelligence (AI), ethics, prompt engineering, and its real-world applications. In this course, participants will explore how AI is shaping industries, how to interact effectively with AI models using prompts, and the ethical considerations of AI adoption. This course blends use-case, interactive discussions, and real-world case studies to equip learners with essential AI knowledge. By the end of the course, learners will gain real-world insights into AI's capabilities, ethical challenges, and how to leverage AI tools responsibly.

Course Prerequisites

- Basic digital literacy and familiarity with using technology.

- Curiosity about AI applications in different industries.

- Interest in ethical considerations related to AI's impact on society.

Module 1

Introduction to AI & Its Impact

- **Understanding AI:** Explore the fundamentals of Artificial Intelligence, its history, core concepts, and real-world applications, providing a solid foundation for further AI studies.

- **AI in Everyday Life:** Discover how AI enhances daily experiences through recommendation systems, virtual assistants, and smart technologies, shaping modern interactions and decision-making processes.

- **Introduction to Machine Learning:** Learn the key differences between supervised and unsupervised learning, their methodologies, applications, and when to apply each approach in real-world scenarios.

- **Use-Case: AI in Healthcare:** Examine AI's transformative role in diagnostics, treatment planning, and personalized medicine, improving healthcare outcomes through data-driven insights and predictive analytics.

- **Case Study: AI in Self-Driving Cars:** Analyze how AI powers autonomous vehicles, covering perception, decision-making, and safety mechanisms that enable self-driving cars to navigate real-world environments.

- **Activity: Discussion on Supervised vs. Unsupervised Learning:** Engage in an interactive discussion comparing supervised and unsupervised learning, understanding their applications, benefits, and selecting the appropriate method for different use cases.

Module 2

Prompt Engineering - Interacting with AI

- **Defining Prompt Engineering and its Importance:** Learn the fundamentals of prompt engineering, its role in optimizing AI interactions, and why well-structured prompts improve response accuracy and effectiveness.

- **Enhancement through Well-Crafted Prompts:** Explore techniques for designing precise prompts that enhance AI-generated responses, ensuring clarity, relevance, and efficiency across various applications and industries.

- **Exploring GPT-4:** Understand GPT-4's advancements, including improved context understanding, nuanced response generation, expanded knowledge, and enhanced coherence, revolutionizing AI applications across diverse domains.

- **Use-Case: Prompting Techniques Across Sectors:** Discover how various prompting techniques are applied in industries like business, healthcare, and education to optimize AI performance and decision-making.

- **Hands-on: Writing Effective Prompts:** Practice crafting prompts to guide AI responses, structure outputs, provide examples, assess quality, and efficiently divide tasks for different AI-driven solutions.

- **Hands-on: GPT-4 in Action Across Industries:** Engage in practical demonstrations showcasing GPT-4's transformative impact on industries like business and healthcare through real-world applications and case studies.

Module 3

AI in Business & Industry Applications

- **Crafting AI Strategies:** Guides in developing effective AI strategies, integrating technology into driving innovation.

- **Key AI Tools for Business:** Discover essential AI tools driving business success, including automation, predictive analytics, and customer insights, enhancing efficiency, decision-making, and competitive advantage.

- **Power of GAN AI:** Learn the fundamentals of Generative AI, distinguishing it from other AI technologies, exploring its creative potential and applications in various domains.

- **Case Studies: How AI Helped Businesses Grow:** Analyzes real-world examples illustrating AI's transformative impact on businesses.

- **Discussion: Roadmap for AI Adoption Strategy:** Engage in a discussion on developing a successful AI adoption strategy, covering key steps, challenges, implementation best practices, and long-term business impact.

Module 4

AI Ethics & Bias

- **Overview of Ethical Considerations in AI:** Explore the foundations of ethical AI, addressing fairness, transparency, accountability, and the societal impact of artificial intelligence technologies.

- **Data Collection and Bias Consequences:** Understand data collection methods, biases, and ethical implications in AI, ensuring fairness, accuracy, and responsible decision-making in AI-driven systems.

- **Bias Impact on Decision-Making:** Analyze how biases in data and algorithms influence AI-driven decisions, affecting fairness, accuracy, and ethical considerations across industries.

- **Use-Case: AI in Healthcare:** Examine AI's transformative role in healthcare, from diagnosis to treatment, while addressing ethical challenges and ensuring responsible implementation.

- **Debate: Should AI Replace Human Jobs?:** Engage in a critical discussion on AI's impact on employment, weighing efficiency, ethical concerns, and the balance between automation and human roles.

Module 5

The Future of AI & Career Opportunities

- **AI's Role in Addressing Global Challenges:** Explore how AI tackles global issues like climate change, healthcare, and sustainability, driving innovative solutions for a better future.

- **How AI is Reshaping Industries and Work:** Understand AI's transformative impact on industries, workflows, and job structures, redefining efficiency, innovation, and human-AI collaboration.

- **Job Displacement vs. Job Creation:** Analyze AI's dual impact on the job market, exploring automation-driven displacement and emerging opportunities in new, tech-driven roles.

- **Skills of the Future:** Identify essential skills for the AI-driven era, focusing on adaptability, digital literacy, and critical thinking to thrive in evolving workplaces.

- **Case Study: Thriving Amidst Technological Evolution:** Examine real-world examples of businesses and individuals successfully adapting to AI advancements, highlighting strategies for sustainable growth and innovation.