AGENTIC AI GOVERNANCE

Course Syllabus

Agentic AI Governance Training Course Syllabus

Part 1: Agentic AI Foundational Knowledge

1. **What Is Agentic AI? Agentic AI Core Definitions, Lifecycle, & Governance**
   a. Phases of Agentic AI Selection, Deployment & Governance
   b. Relationship to Traditional AI and Generative AI
   c. Reasoning and Planning: The Brains of Agentic AI
   d. Real-World Examples
   e. The Core Agentic Workflow (Thought-Action-Observation)
   f. Detailed Examples of Agentic Automation
   g. Agentic Reflection: Self-Correction and Plan Improvement
   h. Examples of Reflection in Multi-Step Planning
   i. Memory and State Tracking in Agentic AI
   j. Interaction Loops with Humans or Environments

2. **Categories of AI Agents**
   a. Task-Oriented Agents
   b. Multi-Agent Systems (MAS): Specialized Collaboration
   c. Embodied/Robotic Agents
      i. Spot vs. Optimus: A Tale of Two Robotic Philosophies
      ii. Tesla Optimus vs. Xpeng IRON Humanoid Robots

3. **Global & National Regulatory Frameworks**
   a. Safety, Cybersecurity, and Data Standards
   b. ISO standards
   c. Emerging Agentic AI standards

4. **Core Technologies & Architectures**

   a. LLM-Based Agent Architectures
   b. Retrieval-Augmented Generation (RAG): Grounding the Agent
   c. Chain-of-Thought Planning
5. **Agent Frameworks & Platforms**
6. **Memory & State Management**
7. **Emerging Standards & Governance**
8. **Emerging Trends in Tool Protocols**
9. **Human-in-the-Loop vs. Human-on-the-Loop Oversight**

Part 2: The Role of Key Functional Groups in Agentic AI Governance (based on the Information Governance Reference Model)