COURSE SYLLABUS

AI Applications and Challenges for Auditors Course (Self-Paced)

Explore how artificial intelligence, including machine learning, predictive analytics, and natural language processing, is transforming audit workflows. This one-day course equips auditors with practical tools to enhance efficiency, detect risk, and navigate ethical and compliance challenges.

Group classes in Live Online and onsite training is available for this course. For more information, email onsite@graduateschool.edu or visit: https://www.graduateschool.edu/courses/ai-applications-and-challenges-for-auditors-course-self-paced

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Course Outline

Module 1: Introduction to AI – History, Data Influences, and Technical Progression

- Define Artificial Intelligence and explore its historical development
- Understand the role of structured and unstructured data in AI
- Analyze how data sources like the Surface Web, Deep Web, and Dark Web feed AI systems
- Discuss cloud infrastructure, big data, and the exponential growth of information

Module 2: LLMs, SLMs, and Artificial Intelligence Architecture

- Differentiate between Large Language Models (LLMs) and Small Language Models (SLMs)
- Explore the structure of AI: AI, Machine Learning, and Deep Learning
- Review major AI tools and platforms (ChatGPT, Bard, Claude, Gemini, LLaMA, Copilot)
- Identify AI applications in transportation, healthcare, fraud detection, and creative work

Module 3: AI Products and Searching Techniques

- Compare AI chat interfaces vs. traditional search engines for audit research
- Understand data privacy concerns including PII and PHI exposure in AI usage
- Conduct AI-powered anomaly detection using real audit datasets
- Create audit summaries using AI and assess their risk implications

Module 4: AI Cautions and Ethical Considerations

- Explore ethical challenges such as hallucinations, bias, propaganda, and data misuse
- Examine AI governance frameworks: EO 13859, 13960, 14110, 14141, 14179
- Understand national and international efforts (NIST, UK, EU) for responsible AI use
- Review the NIST AI Risk Management Framework (AI RMF 1.0)

Module 5: Use Cases in AI

- Identify AI applications in document summarization and audit automation
- Explore additional use cases: P-card analysis, geo-mapping, fuzzy matching, vendor data
- Detect AI-generated content in text and images using forensic and analytic techniques
- Discuss the future of AI: AGI, ASI, rogue models, monetization, and workforce impacts