COURSE SYLLABUS

Think Smarter About AI: Critical Thinking Skills for Government Employees Course

Evaluate AI-generated content critically, apply logical reasoning and effective prompting techniques, and develop the judgment needed to use AI responsibly in the federal workplace.

Group classes (Live Online) and onsite training are available for this course. For more information, email onsite@graduateschool.edu or visit: https://www.graduateschool.edu/courses/think-smarter-about-ai-critical-thinking-skills-for-government-employees-course



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Course Outline

Module 1: AI and Critical Thinking in the Federal Workplace

- Introduction to AI: what AI is, how generative AI works, and common federal workplace applications.
- AI in the federal workplace: current and emerging use cases, opportunities for efficiency, and risks of over-reliance.
- Critical, mechanical, and emotional thinking: how different thinking styles impact decisions, automation bias, and the role of human judgment.
- Human-in-the-loop decision-making: why AI should support rather than replace human judgment, and accountability in AI-assisted work.

Module 2: Evaluating AI Outputs and Information Credibility

- Fact vs. opinion in AI responses: how AI blends facts, assumptions, and probability, and how to recognize unsupported claims.
- Evaluating information credibility: applying CRAAP-style evaluation principles, including currency, relevance, authority, accuracy, and purpose.
- Common AI risks: hallucinations, bias, overconfidence, incomplete context, and false certainty.
- Verifying AI outputs: cross-checking information, evaluating sources and evidence, and recognizing gaps in reasoning.

Module 3: Logical Reasoning and Prompting for Better AI Results

- Logical reasoning fundamentals: premises, inferences, and conclusions in AI-supported analysis.
- Recognizing faulty logic: hasty generalizations, false dichotomies, unsupported assumptions, and non sequiturs.
- Asking better questions: Socratic questioning techniques and critical analysis prompts for deeper AI-supported inquiry.
- Prompt engineering fundamentals: writing clear prompts, providing context and constraints, and refining outputs iteratively.
- AI as a thinking partner: using AI for brainstorming, drafting, analysis support, and scenario evaluation.

Module 4: Applying AI and Critical Thinking to Federal Work Scenarios

- Practical federal use cases: research and analysis, drafting communications, meeting summaries, and policy and program support.
- Responsible AI use: security and privacy considerations, ethical obligations, and human oversight practices.
- Decision-making with AI: evaluating recommendations, considering stakeholder impacts, and balancing efficiency, accuracy, and risk.
- Building an AI-ready mindset: adaptability, continuous learning, and critical evaluation habits for responsible long-term AI use.