COURSE SYLLABUS

AI for Federal Cost Estimation and Analysis Course (Self-Paced)

Apply AI tools to strengthen cost estimation, economic analysis, and capital planning workflows while maintaining compliance with GAO and OMB standards.

> 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/ai-for-federal-cost-estimation-and-analysis-course-self-paced



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Course Outline

Module 1: AI Fundamentals for Cost Professionals

- How AI language models work and their application to cost estimation and economic analysis
- Responsible AI use with cost data, procurement-sensitive information, and pre-decisional estimates
- Protecting sensitive cost data, proprietary pricing, and source selection information
- Recognizing AI hallucinations in cost modeling and economic analysis contexts

Module 2: AI for Cost Estimation Development and Review

- Using AI to research cost estimating methodologies (analogy, parametric, engineering build-up)
- AI-assisted analysis of historical cost data and cost growth trends
- Applying GAO Cost Estimating and Assessment Guide standards with AI research support
- Independent cost estimate review and should-cost analysis with AI tools

Module 3: AI for Economic Analysis and Capital Planning

- Applying AI to cost-benefit analysis aligned with OMB Circular A-94 requirements
- Using AI for business case development and Exhibit 300 support narratives
- Sensitivity analysis and risk assessment for cost estimates with AI tools
- Lifecycle cost modeling and total cost of ownership analysis with AI assistance

Module 4: Hands-On Workshop

- Participants apply AI tools to realistic federal cost estimation scenarios
- Practice prompt engineering for cost analysis and economic evaluation queries
- Cross-check AI outputs against GAO Cost Guide and OMB guidance
- Group exercise: Using AI to develop a cost estimate briefing for an investment review board