COURSE SYLLABUS

Data Storytelling with Excel (Self-Paced)

Transform raw data into persuasive visual narratives using a structured, hands-on workflow in Microsoft Excel. This self-paced course teaches federal professionals how to eliminate visual clutter and apply cognitive design principles to deliver clear, actionable insights to leadership and the public.

For more information, visit
https://www.creativelive.com/classes/data-storytelling-with-excel-self-paced



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Course Outline

Module 1: Foundations — Data, Stories, and Audience

- Identify what makes a data story work and distinguish data from information
- Recognize internal and external data sources and understand how data flows across the internet
- Apply audience analysis and learning style awareness to tailor your data story

Module 2: Reading and Perceiving Visualizations

- Interpret a range of chart types including bar, heat map, KPI, stacked, and drilldown visualizations
- Apply visual perception principles — order, hierarchy, clarity, and convention — to evaluate any chart
- Use Gestalt principles, emphasis, and annotation to guide audience attention

Module 3: Building Effective Visualizations

- Select the appropriate visualization type for comparative, time series, correlation, and geographic data
- Use color intentionally and avoid common deceptive chart techniques
- Follow a step-by-step process for building a data story using the analytics value chain

Module 4: Excel for Data Discovery and Analysis

- Perform data discovery and integrity checks to qualify data before analysis
- Use AutoSum, sorting, filtering, and math functions to explore datasets
- Build Pivot Tables and Pivot Charts to summarize and visualize transactional data

Module 5: AI, Data Quality, and Applied Case Studies

- Use AI tools and prompting best practices to confirm and refine a data story
- Apply data quality principles and joining techniques to prepare datasets for analysis
- Complete hands-on case studies covering duplicate analysis, stratification, Benford's Law, sampling, and analysis automation