COURSE SYLLABUS

AI for Excel

Learn to harness AI tools to eliminate tedious Excel tasks, automate data cleaning, and accelerate analysis.

For more information, visit
https://www.creativelive.com/classes/ai-excel



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Course Outline

Module 1: AI Fundamentals for Excel Users

- Understand what AI can (and cannot) do for your Excel work
- Overview of AI tools: ChatGPT, Claude, Microsoft Copilot, and others
- How AI "thinks" about spreadsheets—and why that matters for getting good results
- Setting realistic expectations: AI as assistant, not replacement
- Security and data privacy considerations when using AI with sensitive data

Module 2: Mastering AI Prompts for Formula Generation

- The anatomy of an effective Excel prompt: context, examples, and constraints
- Generating simple to complex formulas on demand (VLOOKUP, INDEX-MATCH, nested IFs, array formulas)
- Prompt techniques for dynamic formulas that adapt to your data
- Troubleshooting formulas with AI: explaining errors and suggesting fixes
- Hands-on practice: Building a prompt library for your most common formula needs

Module 3: Automating Data Cleaning with AI

- Identifying data cleaning tasks AI handles best
- Prompting AI to standardize inconsistent data (dates, names, addresses, phone numbers)
- Using AI to generate formulas for splitting and combining text
- Detecting and handling duplicates, outliers, and missing values
- Hands-on practice: Cleaning a messy real-world dataset using AI-generated solutions

Module 4: AI-Assisted Data Analysis and Insights

- Asking AI the right questions about your data
- Generating summary statistics and identifying trends with AI guidance
- Using AI to suggest appropriate chart types and visualization approaches
- Creating data narratives: Having AI help explain what the numbers mean
- Hands-on practice: Analyzing a dataset and generating insights with AI assistance

Module 5: VBA and Macro Generation with AI

- When automation makes sense: Identifying repetitive workflows to streamline
- Prompting AI to write VBA macros for common tasks (formatting, reporting, data manipulation)
- Understanding and modifying AI-generated code (even if you're not a programmer)
- Testing, debugging, and refining macros with AI support
- Hands-on practice: Creating a macro to automate a repetitive reporting task

Module 6: Building Your AI-Enhanced Excel Workflow

- Integrating AI into your daily Excel routine without disrupting productivity
- Creating a personal prompt library for recurring tasks
- When to use AI vs. when to do it yourself: A practical decision framework
- Keeping up with rapidly evolving AI capabilities
- Developing an action plan for continued AI skill-building