Introduction

- Overview: four 90-minute sessions (six instructional hours across two half-days), focused on using Claude Code effectively for code generation, not data analysis
- Expectations: complete the provided pre-class setup and work in the instructor-supplied course folder; class is taught in the Claude Code CLI, and the Claude desktop app is optional
- Students use and adjust a supplied project harness rather than building one from scratch, check work locally, and commit on their machines

Module 1 – Foundations and first look (90 minutes)

- What a coding agent is, and how it differs from autocomplete or a one-step chat reply
- The agent loop: gather context, take action, and verify results
- Context, tools, and permissions
- A first session in an empty folder, without a project harness
- A short tour of the supplied harness and project guidance

Module 2 – A single task (90 minutes)

- Habits for a single session: Explore, Plan, Code, Commit
- Using and adjusting the supplied project guidance
- Permissions and verification before a local commit
- Exercise 1: Use Explore, Plan, Code, and Commit to make a feature change, and learn how verification shows when the work is done

Module 3 – Goal-driven longer work (90 minutes)

- Steering a change yourself versus a goal-driven run that continues until checks pass
- Using tests and review to decide when the work is done
- Reviewing a plan before implementation
- Exercise 2: Carry out a goal-driven task and learn how a plan and checks keep the work running until it succeeds

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Module 4 – Bigger work and wrap-up (90 minutes)

- When a dynamic workflow is a better fit than a single-session change or a goal-driven run
- Exercise 3: Plan a larger change and learn how to implement its steps in parallel using dynamic workflows
- Exercise 4: Run independent tasks in parallel worktrees and learn how isolated work avoids interference
- How to bring the harness (the gate, CLAUDE.md, and permissions) to your own repository
- Key takeaways and a short debrief

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