

## LESSON PLAN 1: USING AI AS A LEARNING PARTNER IN CS1

**Duration:** 50–65 min | **Audience:** CS1 students | **Format:** Pair-based, hands-on

### Objectives

By the end of this module, students will:

- Distinguish effective prompts from ineffective ones
- Recognize AI capabilities and limitations
- Practice **honesty, humility, and courage** when using AI

## MATERIALS

Access to any AI chatbot (ChatGPT, Claude, Gemini, Copilot, DeepSeek); Honesty Contract handout; Guided Prompt Writing handout; sticky notes or shared anonymous doc.

## PLAN

### Opening (5–8 min)

Ask students about their AI use to activate prior experience and build comfort. Sample prompts: *When did you last use AI for an answer? Does AI help you think better or do less?* Share a personal AI-use anecdote if needed.

### Part 1 — The Honesty Contract (10–15 min)

Present a brief scenario contrasting two students with identical grades but different AI-use practices (one copies, one learns). Discuss:

- Was their AI use the same? Who showed honesty? Humility? Courage?

Define the three virtues briefly:

- **Honesty:** naming what you used AI for; identifying knowledge gaps
- **Humility:** acknowledging what you don't know
- **Courage:** asking for help instead of taking shortcuts

Distribute the **Honesty Contract** (a self-commitment to disclose AI use, focus on learning, and log AI interactions). Students sign and keep it. The contract is between the student and themselves — not graded.

### Part 2 — Your First Prompts (20–25 min)

Pair students: **Driver** (types prompts) and **Navigator** (documents). Switch roles halfway.

**Task:** Write a function that checks if a number is even.

- **Unguided round (8 min):** Navigator writes their natural first prompt; Driver runs it; both read the response. Reflect: *Did you understand every line? What confused you?*
- **Guided round (12 min):** Instructor demonstrates a humility-based prompt (e.g., *"I'm a beginner. Explain in simple terms how to check if a number is even. I don't know what '%' does. Then show an example."*). Pairs swap roles and craft a new prompt that admits they're learning, asks for explanation before code, and names what they don't understand. Students complete the **Guided Prompt Writing** handout.

### Part 3 — Courage to Ask (15–17 min)

**Anonymous question collection:** Each student submits one question about programming they've been afraid to ask (sticky notes or shared doc). Read 3–4 aloud without attribution to normalize asking.

**Practice:** Each student picks a question (theirs or another's), crafts a humility-based prompt, runs it through an AI, and discusses the response with their partner. *Was the answer helpful? Did it lead to new questions?*

### Closing (3–5 min)

Brief reflection — oral or written:

- *How does it feel to use AI as a learning partner rather than an answer machine?*
- *What did you learn that you didn't know before?*

**Key takeaway:** *Be honest about what you don't know · Show humility by admitting you're learning · Have courage to ask any question · Focus on understanding, not just answers.*

## ADAPTABLE VARIATIONS

- **Shorter (30 min):** Combine Parts 1 and 2; skip anonymous question collection.
- **Different language:** Replace the even-number task with any beginner-appropriate function (FizzBuzz, string reversal, list sum).
- **Larger class:** Use groups of 3 with a third "Reporter" role.

### The Honesty Contract

My Honest AI Use Agreement

I, \_\_\_\_\_, commit to:

- Disclose when I use AI assistance in my work
- Focus on learning, not just getting answers
- Ask AI to teach me, not just do work for me
- Be honest with myself about what I understand
- Have the courage to ask "dumb" questions
- Show humility about what I don't know yet

When I use AI, I will document the following logs in \_\_\_\_\_

- What I asked for

- What I learned

- What I still need to understand

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

### Guided Prompt Writing

My Humility-Based Prompt: [Write your prompt here]

AI's Response: [Copy key parts]

What I learned that I didn't know before:

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

### Prompt writing framework:

Framework 1: R.I.S.E. Prompting

**R** — Role (who the AI should act as)

**I** — Input (what you give it)

**S** — Steps (what you want it to do)

**E** — Expectations (format, constraints, style)

Example:

“Act as a Python tutor.

Here is my code. [insert code]

Explain step by step why I get an error.

Use simple language and no technical jargon.”

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Framework 2: C.O.D.E. (for programming tasks)

- C — Context (the assignment, purpose, constraints)
  - O — Objective (exact task)
  - D — Details (rules: language, functions allowed/not allowed)
  - E — Evaluation (how you want it evaluated, tested, or explained)
- Context: "I'm in CS1 learning Python loops."  
Objective: "Explain how this loop works."  
Details: "Use a simple analogy. No code outside this snippet."  
Evaluation: "Check that your explanation matches the code."