PROMPT ENGINEERING

Cheat Sheet for Faculty

Mercy University · AI Teaching Toolkit · 2025 – 26

Contents

How to use this guide

- This is Part 2 of the shared resource for faculty.
- Sections 1–2 are labeled for Faculty and cover grading and assignment design
- New to AI prompting? Start at Section 1 in Part 1 and work through in order.
- Already comfortable with basics? Jump to Section 3 (Techniques) or Section 4 (Reflection Exercises).
- Quick lookup? The Quick-Reference card below has the most-used formulas.

Quick-Reference Prompt Formula Card

The four formulas below cover ~80 % of academic prompting needs. Memorize these first.

FORMULA 1 · The Foundation (use every time)

ROLE + CONTEXT + TASK + CONSTRAINTS + FORMAT

Example: 'You are a health policy expert [ROLE]. I am a junior studying U.S. Medicare [CONTEXT]. Explain the 2023 drug-pricing provisions [TASK] in plain language, no jargon [CONSTRAINTS], using 3 bullet points [FORMAT].'

FORMULA 2 · The Iteration Trigger

That answer is [ISSUE]. Please [FIX] and add [MISSING ELEMENT].

Example: 'That answer is too surface-level. Please go deeper on equity implications and add a specific state-level example.'

FORMULA 3 · The Adversarial Probe

Now argue the OPPOSITE position using the same evidence.

Example: 'You just argued for universal coverage. Now build the strongest counterargument against it using the same data.'

FORMULA 4 · The Gap Detector

What did you leave out, assume, or oversimplify in your last answer?

Use this after any AI response to uncover hidden assumptions before you trust the output.

✦ FACULTY SECTION ✦

Sections 1 & 2 are written for instructors. Students are welcome to read them as understanding how their work is graded makes you a better collaborator.

Section 1 — Reading Chat Logs

When students submit chat logs, you are grading the quality of their thinking process — not just their final answer. Use the following indicators.

1.1 Red Flags vs. Green Flags

Red Flag — Weak Engagement	Green Flag — Strong Engagement
Single prompt, single response — conversation ends	Multiple exchanges; student keeps pushing deeper
Assignment instructions copy-pasted verbatim as the prompt	Student added context, constraints, or a persona to the prompt
AI response accepted with no follow-up	Student challenged AI: 'That's not right because…'
Final submitted text = AI output with minor edits	Submitted work integrates AI + original student analysis
No reflection component or reflection is one sentence	Reflection identifies specific AI errors and student's own position
Prompt shows no awareness of course material	Prompt references specific textbook, framework, or class concept
Student never asked AI to justify or explain its reasoning	Student asked 'why', 'what did you leave out', or 'argue the opposite'

1.2 The 5-Dimension Grading Rubric

Dimension	What to Look For	Score 4–5 Indicators
Prompt Quality	Specificity, context, constraints, strategic framing	Role + context + constraints specified; tailored to course material
Iteration Evidence	Follow-ups, refinements, redirecting AI	3+ exchanges; student visibly pushing AI to improve or reconsider
Critical Evaluation	Identifying errors, gaps, bias, hallucinations	Student names a specific AI error and explains why it's wrong [decrease weight for this criterion]
Original Contribution	Student's own analysis beyond AI output	Final submission contains ideas, examples, or judgments AI didn't provide
Reflection Quality	Metacognition — why they prompted the way they did	Student explains their prompting strategy, not just what AI said

1.3 Speed-Grading Tips

- Count the exchanges first — fewer than 3 turns is almost always a weak log.
- Jump to the final submitted work and compare it to the last AI response. Identical? That's a red flag.
- Scan the reflection: if it doesn't name a specific AI mistake, it's likely surface-level.
- Look for the phrase 'That's not quite right' or any pushback — these are strong engagement signals.
- If the chat log looks fabricated (perfect grammar, suspiciously formatted), ask student to share their account directly.

Section 2 — Designing AI-Resistant Assignments

Core Principle

The goal is NOT to ban AI. The goal is to design assignments where one-shot prompting is structurally insufficient.

If a student can submit AI's first response and get full credit, the assignment needs redesign.

2.1 The 4-Stage Assignment Template

Stage	Student Task	Why It Can't Be One-Shot
Stage 1 — AI Draft	Prompt AI on the topic. Submit full chat log showing prompts used.	Forces explicit prompting - student can't hide a copy-paste
Stage 2 — Gap Analysis	Identify: What did AI miss? What assumptions did it make? What was wrong?	Requires domain knowledge to evaluate AI output critically
Stage 3 — Context Injection	Add something AI couldn't know: local data, a recent event, a course-specific framework.	AI knowledge cutoff + course-specificity makes this student-only work
Stage 4 — Synthesis	Write your final position: where do you agree with AI? Disagree? Why?	Original judgment is undelegate-able -- student must commit to a view

2.2 Follow-Up Questions That Reveal Thinking

Include 2–3 of these in every assignment. They are the most reliable signal of genuine engagement:

- Why did you phrase your initial prompt that way?
- What made you decide to ask the follow-up question you used in turn 3?
- What did AI's response change about your thinking — if anything?
- What did you have to research independently because AI couldn't provide it?
- If you ran this conversation again, what would you do differently?
- What was the single most misleading thing AI said, and how did you catch it?

2.3 Converting Existing Assignments

Original Assignment (Before)	Redesigned for AI Engagement (After)
'Analyze the ethical implications of X.'	'Use AI to analyze X. Then identify the weakest argument AI made and find a real-world example it missed. State your own position in 200 words.'
'Summarize the chapter on Medicare policy.'	'Get AI to summarize the chapter. Fact-check 3 claims against the Valaitis textbook. What did AI oversimplify? What's your own takeaway?'
'Identify the muscles of the rotator cuff.'	'Ask the anatomy bot to explain the rotator cuff one muscle at a time. For each muscle, note where AI's description differs from Trail Guide. Correct any error.'
'Write a stakeholder analysis.'	'Use AI to map all business stakeholders. Then identify 2+ stakeholders AI missed and explain why AI likely overlooked them. Whose interests did AI center by default?'

References

The following sources informed the frameworks, statistics, and pedagogical principles in this guide.

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Key Statistics Cited in This Guide

Stat	Finding	Source
86%	of students globally use AI in their studies	*Digital Education Council, 2024*
54%	use AI weekly; ~25% use it daily	*Digital Education Council, 2024*
80%	of undergraduates worldwide have used GenAI to support their studies	*Chegg, 2025*
61%	of faculty have used AI in teaching, but 88% do so only minimally	*EDUCAUSE, 2024*
93%	of higher education staff expect to expand AI use within two years	*EDUCAUSE, 2024*
94%	of top universities have faculty guidelines emphasizing course-specific GenAI policies	*AI Curriculum Research Synthesis, 2025*
76.8%	accuracy achieved by current LLMs on USMLE-style anatomy questions (up from 44.4% with GPT-3.5)	*Gordon et al., BEME Guide No. 84, 2024*

Statement

This document was created with the help of Anthropic’s Claude Sonnet 4.6 (2026)