



The AI-Integrated Assignment Design Toolkit

How to move from policing AI
to grading the thinking.



4 LMS-Ready Assignment Blueprints

2 Process Rubrics

A Day 1 Goal-Setting Worksheet

COPY-PASTE READY FOR YOUR LMS

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From artifact-driven to process-driven assessment

When AI can generate a polished essay in seconds, the final artifact no longer proves that learning happened. The first instinct was to ban it or control it with detection tools. But those tools produce false accusations, erode trust, and grade the wrong thing. A better approach starts with the assignment itself. **Make the student's thinking and decisions visible**, then evaluate the process, not just the final output.

The tools in this kit shift the student's role from **content generator** to **senior editor**: accountable for the claims, sources, choices in their work. That accountability builds **cognitive vigilance**: the habit of questioning, verifying, and making deliberate decisions about AI output rather than accepting it at face value..

HOW THIS TOOLKIT BUILDS COGNITIVE VIGILANCE

Forethought

Establishing intellectual intent before AI enters the chat – **Blueprint 1, Day 1 worksheet**

Communication

Explaining and defending reasoning under pressure – **Blueprint 2, Argument Lab**

Judgment

Verifying claims and catching hallucinations – **Blueprint 3, Metacognitive Synthesis rubric**

Agency

Owning every accepted, rejected, or transformed AI suggestion – **Blueprint 4, Prompt Log rubric**

How to use this kit

Every prompt is written to be pasted directly into your LMS, and every rubric grades the process. Start with the Day 1 worksheet, adopt one blueprint in one unit, and expand from there.

1

The Day 1 “Job Description” Goal-Setting Exercise

A plug-and-play worksheet that helps students connect what they're learning to the skills they'll need in their future careers and answer the question, "Why do I need to learn this if AI can do it?"

INSTRUCTOR SETUP

Provide students with a real, entry-level job description relevant to your field (e.g., Marketing Coordinator, Registered Nurse, Financial Analyst). Ask them to review it during the first week of class.

STUDENT WORKSHEET

Step 1 – The gap analysis

Highlight the required intrapersonal skills and critical-thinking tasks on this job description that you feel **least comfortable executing today without the help of AI**.

Step 2 – Personal goal setting

Based on your highlighted areas, write **one specific goal** for what you need to master by the end of this term so you can confidently walk into an interview for this role.

Step 3 – Action plan

How will you use course resources (office hours, the writing center, peer review) to achieve this goal, while using AI as a tool, not a substitute for your own thinking?

2

The “Prompt Log” Rubric

A ready-to-use rubric for evaluating how students **direct, challenge, and refine AI output** rather than accepting it at face value.

Baseline prompting
0–3 pts

Clear initial prompt with necessary context, or generic?

Iteration & redirection
0–4 pts

Did they refine, challenge, and redirect weak output?

Friction & scrutiny
0–3 pts

Did they ask AI to surface counterarguments or alternative perspectives?

Criteria	3 points – Exceeds	2 points – Meets	1 point – Needs improvement
Context & specificity	Prompt includes rich context, constraints, and a specific persona or goal.	Prompt includes basic context and a clear task, but lacks constraints.	Prompt is generic (e.g., “Write an essay about X”).
Iteration & redirection	Student actively challenged the AI’s first output, asked for revisions, or redirected weak logic.	Student asked follow-up questions but generally accepted the AI’s initial framing.	Student accepted the first output with no iteration or follow-up.
Productive friction	Student asked the AI to provide counterarguments, verify claims, or debate a specific point.	Student used AI primarily for summarization or outlining without pushing boundaries.	Student used AI solely to generate the final artifact.

3

The “AI Evaluation” Rubric

A ready-to-use rubric for evaluating how students question, verify, and reflect on AI output to demonstrate the key behaviors that **build cognitive vigilance**, rather than cognitive surrender.

Identification of flaws
0–4 pts

Did they spot where the AI was weak, hallucinated, or lacked nuance?

Judgment & verification
0–4 pts

Did they cross-reference claims and explain what they accepted or rejected — and why?

Reflection awareness
0–2 pts

Can they articulate how their own thinking changed, draft to final?

Criteria	3 points: Exceeds	2 points: Meets	1 point: Needs improvement
Flaw identification	Pinpoints specific areas where the AI hallucinated, lacked nuance, or provided biased information.	Notes general weaknesses in the AI's output but lacks specific examples.	Accepts AI output without identifying or questioning potential weaknesses.
Source verification	Cross-references the AI's claims against course texts or external verified sources and explains the discrepancies.	Mentions that claims should be verified but does not actively cross-reference them.	Accepts AI output as factual without verification.
Cognitive growth	Clearly articulates how their own argument or understanding evolved after evaluating the AI's output.	Briefly mentions what they learned from the exercise.	Focuses only on the AI's performance, not their own learning process.

PART 4 · ASSIGNMENT BLUEPRINTS



The 4 AI Integrated Assignment Blueprints

Preventing cognitive surrender and designing for cognitive vigilance requires changing the structure of the assignment itself, not just how we grade it. These four AI-Integrated Assignment (AIA) blueprints build AI literacy directly into coursework by asking students to question, evaluate, and make deliberate choices about AI output. Each is ready to adapt for your LMS and includes a rubric that evaluates the student's process and decisions, not just the final product.

BLUEPRINT 1 · PROTECTING THE BLANK PAGE

The “Forethought” Blueprint
Page 8

BLUEPRINT 2 · ARGUMENT LAB

The “Friction” Blueprint
Page 9

BLUEPRINT 3 · CLAIM-SOURCE VERIFICATION

The “Misconception Audit” Blueprint
Page 10

BLUEPRINT 4 · CO-AUTHORSHIP LOG

The “Decision Distance” Blueprint
Page 11

The “Forethought” Blueprint

Why it works: Students must establish their own intellectual intent before AI enters the chat. Requiring a thesis, goals, and initial knowledge first protects the crucial “forethought” phase of self-regulated learning. This creates an intellectual starting point students can use to evaluate AI feedback that challenges and expands their thinking rather than generating it for them.

COPY-PASTE FOR YOUR LMS – OUTLINE CRITIQUE & EXPANSION

Step 1 (human only): before opening any AI tool, write out your core thesis statement for [Insert Topic/Paper] and list 3–4 main pieces of evidence you plan to use.

Step 2 (AI integration): feed your thesis and outline into an AI assistant. Use this prompt:
 “Act as a rigorous academic peer reviewer. Review my thesis and evidence below. Do not rewrite it for me. Instead, ask me questions to uncover where my logic is weak and what counterarguments I am missing, and suggest one area for further research.”

Step 3 (submission): submit three things: your original Step 1 thesis and evidence, a copy of the AI’s feedback, and a 150-word summary of what you decided to do with that feedback—what you’re changing, what you’re keeping, and your reasoning for each.

Criteria	3 points – Exceeds	2 points – Meets	1 point – Needs improvement
Original intent	Thesis is specific, original, and demonstrates clear independent forethought prior to AI use.	Has a basic thesis but lacks specific evidentiary planning.	Thesis is vague or lacks evidence of independent planning.
Response to critique	Evaluates AI feedback on its merits, deciding what to act on and what to set aside, with clear reasoning for each choice and specific changes to the draft.	Considers the AI feedback and makes some judgments about what to use, though changes are minor or reasoning is thin.	Accepts or ignores AI feedback without evaluating it—no reasoning about what was worth using or why.

The “Productive Friction” Blueprint

Why it works: AI should not be a shortcut; it should create productive struggle. Here, AI becomes a debate partner. By responding to AI-generated counterarguments, students naturally build communication skills while explaining, defending, and strengthening their own reasoning.

COPY-PASTE FOR YOUR LMS – DEBATE THE MACHINE

Step 1: formulate a strong, debatable claim regarding [Insert Course Concept/Reading].

Step 2: prompt an AI assistant with:

“I am arguing that [Insert Claim]. Act as an expert who disagrees with me. Provide the single strongest counterargument to my claim, citing historical/factual precedents if applicable.”

Step 3: read the AI’s counterargument.

Step 4 (submission): write a 300-word response directly addressing the AI’s counterargument. Dismantle the AI’s logic, point out its assumptions, or use primary course texts to prove why your original claim holds up. Submit your original claim, the AI’s counter, and your defense.

Criteria	3 points – Exceeds	2 points – Meets	1 point – Needs improvement
Argumentative rigor	Student’s defense directly dismantles the AI’s specific logic and addresses nuance beautifully.	Student defends their claim but somewhat talks past the AI’s specific counterargument.	Student abandons their claim or agrees with the AI without defending their initial stance.
Evidence integration	Seamlessly integrates primary course texts/data to overpower the AI’s counterargument.	Uses general knowledge to defend the claim, but lacks specific course evidence.	Fails to use evidence to support their defense.

The “Misconception Audit” Blueprint

Why it works: AI-generated content can contain hallucinations, factual errors, omissions, or oversimplifications. This assignment uses AI output as an artifact for critique. Auditing an AI-generated text against a verified primary source builds judgment — students learn AI is not an unquestioned authority, but a flawed tool requiring human oversight.

COPY-PASTE FOR YOUR LMS — THE AI AUDIT

Step 1: I have generated an AI summary/analysis of [Insert Primary Source, Case Study, or Historical Event]. You will find it attached below.

Step 2: act as the Senior Editor. Read the provided AI text side-by-side with our actual course text.

Step 3 (submission): annotate the AI document (or write a bulleted list) identifying at least 3 distinct flaws: a **factual hallucination** (it made something up), a **reduction of nuance** (it oversimplified), or an **omission** (it left out crucial context). For each flaw, provide the exact quote from the primary source that proves the AI wrong, and explain the correction.

Criteria	3 points – Exceeds	2 points – Meets	1 point – Needs improvement
Audit accuracy	Identifies 3 highly specific flaws, successfully catching subtle distortions or omissions in the AI text.	Identifies flaws, but focuses mostly on surface-level errors rather than conceptual nuance.	Fails to identify true flaws, or incorrectly corrects the AI.
Source verification	Uses precise, perfectly contextualized quotes from the primary text to definitively correct the AI.	References the primary text generally to correct the AI, but lacks specific quotes.	Relies on personal opinion rather than the primary source to correct the AI.

The “Decision Distance” Blueprint

Why it works: When students co-create with AI, the final product doesn’t show who made which decisions, or how much “cognitive distance” is between what was generated and their true thought. A decision log makes those choices visible and asks students to take responsibility for what they accepted, rejected, or changed.

COPY-PASTE FOR YOUR LMS – CO-AUTHORED ESSAY & DECISION LOG

Step 1: you are permitted to use AI to help outline, draft, or refine your essay on **[Insert Topic]**.

Step 2: as you work, maintain a “Decision Log.” You are the Senior Editor; the AI is your intern. You are responsible for the final accuracy, voice, and quality of the work.

Step 3 (submission): submit your final essay with a 3-part Decision Log:

- **1 accepted suggestion** - paste one paragraph/idea the AI generated that you kept, and explain why it was structurally or factually sound;
- **1 rejected suggestion** - paste one you threw out, and explain why it was wrong, off-topic, or poorly written;
- **1 transformed suggestion** - show the “before” and “after” of a section you heavily edited to restore your own voice or add deeper course context.

Criteria	3 points – Exceeds	2 points – Meets	1 point – Needs improvement
Editorial agency	The “transformed” section shows significant human intervention, elevating the AI’s generic text with specific course context and voice.	The “transformed” section shows minor human edits (fixing grammar/flow) but lacks deep conceptual addition.	The student accepted AI text wholesale with no meaningful transformation.
Justification of choices	Decision log provides deep, critical reasoning for why AI content was kept or rejected, showing high cognitive vigilance.	Decision log provides basic reasoning (e.g., “It sounded good” or “It was too long”).	Decision log is incomplete or justifications are entirely superficial.

A QUICK TOUR OF THE LEARNING INTELLIGENCE PLATFORM

Ready to see this pedagogy in action?

These manual rubrics give you a practical starting point for building cognitive vigilance into your coursework. Packback helps you scale the same approach to more assignments and larger classes without adding more to your grading workload.

Packback's **Learning Intelligence Platform** turns these exact blueprints into ready-made, easily gradable coursework. We make the student thinking process visible, trackable, and assessable, so you can focus on teaching rather than policing.

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