

AI Prompting Guide for Online Course Design

Generative AI Essentials

In general, there are four basic elements of a prompt (DAIR.AI, 2023):

1. Instruction - a specific task or instruction
2. Context - external information or additional context that informs the model
3. Input Data - information that you want the model to respond to or manipulate in some way
4. Format - the style, type, tone, or format of the output.

You do not need all four elements for prompt. You can also establish context in your initial prompt to set the stage for subsequent prompts in a conversation. Also, you can substitute these terms when writing your prompts. For example, use “Task” instead of “Instruction.”

Below are potential prompting tasks for the planning, design, and build phases of the online course design process. In this guide, we suggest establishing the initial context first to set the stage for subsequent prompts.

Generative AI can draft and refine content, summarize information, and support planning and design work. Some tools can also interpret uploaded files or images and help complete tasks. However, outputs may be inaccurate, incomplete, or biased. Always verify, revise, and make the final decisions yourself.

Choosing the Right AI Tool for the Task

Not all AI tools or models within a tool are designed for the same type of work. Some are optimized for speed and brainstorming, while others are better for deep reasoning, structured outputs, research, or working with files. Selecting the right tool for the task can improve quality, reduce revision time, and produce more reliable results. When possible, consider the task before selecting the model or AI environment.

Match the Tool to the Task

If You Are Trying To...	Look For Tools That...
Brainstorm ideas, titles, or descriptions	Generate responses quickly and conversationally



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Refine or align course outcomes	Support deeper reasoning and structured analysis
Create tables, rubrics, or structured outputs	Handle formatted responses and structured layouts
Analyze a syllabus or module document	Allow file uploads and document interpretation
Identify scholarly sources or current examples	Include web browsing or research capabilities
Rewrite LMS content for clarity and tone	Support long-context processing
Generate visuals, alt text, or slide outlines	Offer multimodal (text + image) capabilities

Managing AI Memory and Context

Many AI tools now retain context across conversations. This means they may remember information from earlier messages, previous chats, or saved project spaces. While this can improve efficiency and personalization, it also requires thoughtful management. Understanding how memory works helps you stay intentional about accuracy, privacy, and instructional design decisions.

How AI Memory Can Help

AI memory can:

- Maintain awareness of your course topic and audience across multiple prompts
- Remember formatting preferences or instructional goals
- Build on prior drafts without needing to restate all context
- Support long-term course development projects

This can reduce repetition and streamline your workflow.

When to Start a New Chat

There are times when beginning a new conversation is beneficial:

- When switching to a different course or discipline
- When experimenting with a new instructional approach
- When you want to avoid unintended assumptions from earlier prompts
- When previous outputs are influencing results in unhelpful ways

Starting fresh can improve clarity and reduce cross-context blending.



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Watch for Unintended Connections

Because AI systems may draw on earlier context, they can sometimes:

- Blend ideas from unrelated courses
- Reuse language patterns unintentionally
- Make assumptions based on previous discussions

If outputs feel misaligned or overly specific, clarify the context or begin a new session.

Data Privacy and Institutional Responsibility

Be mindful of what you share in AI tools:

- Do not upload protected student data unless your institution has approved the platform.
- Avoid sharing identifiable student information.
- Confirm whether your institution's AI tools operate within secure or enterprise environments.

When in doubt, remove identifying information before uploading files.

Best Practices for Managing Context

- Clearly restate key goals when beginning major tasks.
- Provide updated instructions if your direction changes.
- Periodically summarize the project and ask the AI to confirm understanding.
- Review outputs carefully to ensure they reflect your intent—not assumptions carried forward.

AI memory can enhance continuity and efficiency, but you remain responsible for the accuracy, alignment, and ethical use of the outputs.

Establish Context for Course Design Assistance

If you are designing a new course and you want to establish context, start a new AI chat or project folder. Begin by providing some context. Prompt:

I am developing an online course on <topic> for <audience - e.g. community college students>. In general, I want students to be able to <in broad terms, explain what students should be able to do when they complete your course.><Explain some of your instructional goals - e.g. I plan to include topics that promote a variety of people and perspectives represented in the curriculum.> I need you to act as my course design assistant.

Establishing context before attempting any of the prompts below will lead to more refined and relevant outputs.



A Practical Iteration Cycle for Course Design

1. Draft

Generate an initial output (e.g., course outcomes, module outline, rubric).

Example prompt:

Create 5 module-level outcomes aligned to Bloom's Analyze and Evaluate levels.

2. Evaluate

Critically review the output.

Ask:

- Are verbs aligned with Bloom's level?
- Are outcomes measurable?
- Is the tone appropriate for my learners?
- Does this reflect my instructional philosophy?

You can also ask the AI to evaluate its own work:

- Identify any weaknesses or misalignments in these outcomes.

3. Constrain

Add boundaries to refine quality.

Examples:

- Limit outcomes to one measurable action each.
- Remove vague verbs like "understand" or "learn."
- Ensure student-centered language.
- Align explicitly to CO1–CO5.

Refining prompts similar to these dramatically improve quality.

4. Compare

Ask for variations and explain differences.

Generate two alternative versions of this module outline and explain the instructional tradeoffs.<provide guidance on alternatives>

This supports stronger instructional decision-making rather than passive acceptance.

5. Audit



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Continue to revise manually or AI as a reviewer, not just a generator.

Examples:

- Identify misalignment between module outcomes and assessments.
- Flag assessments that do not map to an outcome.
- Identify cognitive overload in sequencing.
- Suggest where formative feedback opportunities are missing.

This moves AI into the role of design auditor.

Planning Phase

In this initial phase, the course designer defines the purpose and goals of the course, and identifies the target audience. These are typically articulated in a course name, description, and course level outcomes. The designer may also determine the course structure, duration, and type of assessments. The planning phase is critical for laying the foundation of the course and setting clear objectives.

Specify the Task

Course Titles

- Create several possible titles for this course
- Create 2-3 witty titles for this course
- Create several professional titles for this course
- Create a brief course description for a course with the following course outcomes:
<course outcomes>

Course-level Outcomes

- Create 5-7 course-level outcomes for this course. The outcomes should be broad in nature. They should also be based on the SMART framework, Bloom's Taxonomy, and be student-centered.
- Create course-level outcomes for an online course titled <course title>. The outcomes should be broad in nature. They should also be based on the SMART framework, Bloom's Taxonomy, and be student-centered.

Course Descriptions

- Create a 3-4 sentence course description
- Create a brief course description for a course with the following course outcomes:
<course outcomes>



Design Phase

During this phase, the course designer creates the course outline and decides on the content, instructional materials, and assessments. The designer may also create storyboards, which provide a visual representation of the course structure and how the content will be delivered. The design phase sets the course structure and content delivery methods.

Specify the Task

Course Outcomes into Topics

- Create a list of Topics and Subtopics for the course based on the following outcomes:
Input Data: <list of course level outcomes>.
- Additional Conditions:
 - Format: <Topic> (CO<outcome number>)

Course Outcomes into Modules

- Create <x number of> modules for the course based on the following outcomes:<list of course level outcomes>. Every module should have a module title, description, and a list of topics.
- Create modules for the course based on the following outcomes: <course-level outcomes> Every module should have a module title, description, and a list of topics.
- Additional Conditions:
 - Format: By the end of this course, students will be able to: CO<outcome number>: <action verb + outcome text>

Module-Level Descriptions

- Write a module description based on these topics:<topics>
 - Details: No bulleted lists, just explain what will be covered in the module.
- Write a module description based on these module-level outcomes: <module-level outcomes>
 - Details: No bulleted lists, just explain what will be covered in the module.

Module-Level Outcomes (for one module)

- Create <x number of> module-level outcomes for the following module: <module title><module description><module topics>.
 - Details: The module-level outcomes should be based on the SMART framework, Bloom's Taxonomy, and be student-centered.
 - Format: MO<module number.outcome number>:<module outcome text>
- Create module-level outcomes for module <x>.
 - Details: The module-level outcomes should be based on the SMART framework, Bloom's Taxonomy, and be student-centered.



- Format: MO<module number.outcome number>:<module outcome text>

Alignment of Module-Level Outcomes to Course Level Outcomes (formatted by numbering convention)

Clarification may be needed if your course-level outcomes feature sub-outcomes:

- Topic: Each course-level outcome features a primary outcome and multiple sub-outcomes. Module-level outcomes should align to at least one course-level outcome or sub-outcome. Module level outcomes may align to multiple course-level outcomes or sub-outcomes.
- Task: Show the alignment of module level-outcomes to the course-level outcomes. If one doesn't align, it should be identified so it can be re-written. Course-level outcomes:<course-level outcomes> module-level outcomes:<module-level outcomes>
- Format: MO<module number>.<module outcome number>: <outcome text>(CO:<course-level outcome or sub outcome number it aligns to or "not aligned" if it doesn't align >)

Topics and Subtopics based on Module-Level Outcomes

- Write a list of topics and subtopics based on these outcomes: <module outcomes>

Splitting Modules on an Outline

- Split this module outline into two separate modules: <module title><module description><module outcomes><module topics and subtopics>
 - Details: First module should address topics x-x and module two should address topics x-x. Write two separate descriptions, distribute the module outcomes, and the topics and sub-topics. Do not add any new topics or subtopics.

Learning Resources

- Identify current, credible resources (articles, videos, podcasts, OER materials, or professional reports) that support the following module-level outcomes: <module-level outcomes>
 - Audience: <specify audience level>
 - Details: Prioritize accessible and low-cost or open-access resources where possible.
 - Format: Include title, author/organization, publication year (if available), brief annotation explaining relevance to the outcome.
- Create an annotated bibliography for the following topic(s): <topic(s)>
- Additional Conditions:
 - Format: APA 7th edition
 - Details: Include 3–5 scholarly or professional sources. Each annotation should summarize the source and explain how it supports student learning.



Develop Academic Search Keywords

- Develop a list of academic search keywords and Boolean search strings for the following module topic(s): <topic(s)>
- Additional Conditions:
 - format: Include primary keywords, related terms, and sample database search strings (e.g., AND/OR combinations)

Synthesize Findings for Instructional Use

- Based on the following sources: <list or uploaded documents>
- Create a synthesis summary that identifies major themes, notes areas of agreement or disagreement, and highlights implications for teaching and student application
- Additional Conditions:
 - Audience: <specify audience>
 - Details: Avoid simple summary—focus on synthesis and instructional relevance.

Convert Research into Student-Facing Resource Guides

- Create a student-friendly resource guide based on the following materials: <sources or topic>
- Additional Conditions:
- format: Organized by theme with brief descriptions and suggested use (e.g., pre-reading, case example, extension learning)
details: Use accessible language appropriate for community college students.

Build Phase

In this phase, the course is developed using various presentation types, multimedia, and learning activities. The course designer builds course modules, designs the student experience, and adds digital elements such as video, audio, and images. The build phase brings the course content to life and creates an interactive, engaging, and inclusive learning environment.

Specify a Task

Content to Support Specific Learning Outcome(s) or Topic(s)

- Expand on the following topics:<Module Topic><Module Subtopics>
- Create a <content type - e.g. narrative, video script, storyboard, podcast script> that helps me teach to the following learning outcome(s): <module-level outcome(s)>
- Create a <content type - e.g. narrative, video script, storyboard, podcast script> that helps me explain the following topic(s):<topic(s)>
- Additional Conditions:
 - audience:<specify audience>



- format: <specify output format> e.g. output should be in narrative form, an intro paragraph followed by a paragraph per subtopic.
- details: <specify tone, and/or research format> e.g. use research for <specify topics> and follow APA 7.0 for citations.
- additional information: <provide additional guidance as to the intention of the content> e.g. go beyond simply explaining the concepts, help me help students make-meaning of the concepts or conclude with questions to consider as they reflect on these topics in their own context.

Rewriting Content for Use in Other Modalities/Formats

- Rewrite and reformat the following text for use in an <specify use - e.g. instructional video>: <text content>
- Additional Conditions:
 - audience: <specify audience> e.g. community college students who may struggle with <specify concept>
 - details: <specify tone, structure, modality, and/or the type of learning activity> e.g. real-world scenario, service learning, online activity, etc.
 - knowledge category: Bloom's Taxonomy (Categorie(s) - e.g. Evaluate, Analyze)

Learning Activities to Support Specific Learning Outcome(s) or Topic(s)

- Create a learning activity that helps me teach to the following learning outcome(s): <learning outcome(s)>
- Create a learning activity that helps me teach the following topic(s):<topic(s)>
- Additional Conditions:
 - audience: <specify audience> e.g. community college students who may struggle with <specify concept>
 - details: <specify tone, structure, modality, and/or the type of learning activity> e.g. real-world scenario, service learning, online activity, etc.
 - knowledge category: Bloom's Taxonomy (Categorie(s) - e.g. Evaluate, Analyze)

Activities to Gauge Proficiency of Specific Learning Outcome(s) or Topic(s)

- Create an activity that helps me assess proficiency of the following learning outcome(s):<learning outcome(s)>
- Create an activity that helps me assess proficiency of the following topic(s):<learning outcome(s)>
- Additional Conditions:
 - audience: <specify audience> e.g. community college students who may struggle with <specify concept>
 - details: <specify tone, structure, modality, and/or the type of learning activity> e.g. case study, group activity, incorporates data analysis, etc.
 - knowledge category: Bloom's Taxonomy (Categorie(s))



Assessment Questions to Gauge Proficiency of Specific Learning Outcome(s) or Topic(s)

- Create <number of questions> <question type> question(s) that helps me assess proficiency of the following learning outcome(s):<learning outcome(s)>
- Create <number of questions> <question type> question(s) that helps me assess proficiency of the following topic(s):<topic(s)>
- Additional Conditions:
 - audience: <specify audience> e.g. community college students who may struggle with <specify concept>
 - type: <specify type>e.g. discussion questions, scenario questions
 - details: <specify tone, structure, modality, and/or the type of learning activity> e.g. case study, group activity, incorporates data analysis, etc.
 - knowledge category: Bloom's Taxonomy (Categorie(s))

Evaluative Tools for Specific Learning Activities or Assessments

- Create an evaluative tool that helps me assess and provide feedback for following activity:<learning activity description, instructions, module-level outcomes>
- Additional Conditions:
 - type:<tool type - e.g. rubric, checklist, evaluation criteria>
 - details: <specify evaluative learning criteria, other expectations, grading structure, etc.>

Generate a Rubric

- Create a rubric to facilitate an evaluation of the strengths and weaknesses of a <brief description of your activity- e.g. business social responsibility plan>
- Create a rubric that provides meaningful feedback for the following activity: <activity instructions>
- Additional Conditions:
 - Format: <rubric format> e.g. table
 - Categories:<list of your grading criteria or provide guidance on the criteria> e.g. Criteria should emphasize the reflective aspects of the assignment specifically associated with the task of developing, tracking progress, and the experience of participating in self-directed learning.
 - Levels of achievement: <list of your levels of achievement>
 - Point or percentage values: <list your grading values per levels of achievement>

Organize Modules by Different Course Length Formats

- Below is a list of Modules for an online <Course Title>. Organize these <x> modules over a <x> week timespan.
- Additional Conditions:



- Details: All Modules must be covered within the stated timespan. Modules can span over several weeks if needed but refrain from adding any additional modules or activities.
- Modules: List of module names
- Format: Week <number> - <Module Number><Title>

Multimodal & Media-Supported Course Development

AI tools can now support more than text generation. Many systems can help design visual elements, draft structured media content, interpret transcripts, and convert content across modalities. These capabilities can streamline course development and enhance accessibility.

Specify a Task

Generate a Visual Concept Map

- Create a visual diagram outline for a module concept map based on the following module-level outcomes: <module-level outcomes>
- Additional Conditions:
 - Format: Structured outline that can be used in a diagramming tool (e.g., central concept, primary branches, secondary branches)
 - Details: Emphasize conceptual relationships and alignment to outcomes. Do not introduce new concepts beyond those listed.

Create Alt Text for Instructional Images

- Create accessible alt text for the following instructional image: <image description or uploaded image>
- Additional Conditions:
 - Audience: Community college students
 - Details: Alt text should be concise (under 125 words), descriptive, and focused on instructional relevance rather than decorative details.

Draft a Slide Deck Outline for a Lecture

- Create a slide deck outline to support a lecture on the following topic(s): <topic(s)>
- Additional Conditions:
 - Format: Slide number followed by slide title and bullet-point content
 - Details: Include opening hook, key concepts, application example, and reflection prompt. Align slides to <module-level outcome(s)>.

Create a Storyboard for a Short Instructional Video



- Create a storyboard for a 5–7 minute instructional video that teaches the following learning outcome(s): <learning outcome(s)>
- Additional Conditions:
 - Format: Two-column table (Visuals | Narration Script)
 - Details: Include opening framing, concept explanation, real-world example, and closing reflection question.

Generate Transcript-Based Discussion Questions

- Based on the following transcript from a lecture or video: <insert transcript text>
- Create <number> discussion questions.
- Additional Conditions:
 - Knowledge category: Bloom's Taxonomy (Specify level)
 - Details: Questions should promote application, analysis, or evaluation rather than recall.

Convert Lecture Content into an Infographic Layout

- Convert the following lecture content into an infographic layout outline: <lecture content>
- Additional Conditions:
 - Format: Section headings with short, concise text blocks suitable for visual presentation
 - Details: Emphasize clarity, hierarchy of ideas, and visual flow. Suggest icon or visual pairings where appropriate.

