



# Working Smarter, Not Harder: Leveraging AI for Academic Task Management

James DeTerra  
Adjunct Professor  
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College

# Jim DeTerra



## Adjunct Professor

BA Music Education, BSU

MS Computer Science, BSU

Master Beekeeper, Cornell University

PhD Artificial Intelligence, MSU *In Progress*

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First Class Taught at BCC



Field Day - working in the apiary



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AI tools for course planning and organization  
Submitted by James DeTerra

Creating AI-Proof Writing Assignments  
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AI for student engagement: Discussion prompts and activities  
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60<sup>th</sup> Anniversary  
**BRISTOLWEEK**  
ATTLEBORO FALL RIVER NEW BEDFORD TAUNTON


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 <https://jdeterra.com/AIFacultySite>  
**Faculty and Staff AI Resource Repository**

 <https://jdeterra.com/AIStudentSite>  
**Student AI Resource Repository**

 <https://jdeterra.com/AIHighschoolSite>  
**AI High School Learning Portal**

[jdeterra.com](https://jdeterra.com)

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[jdetera.com](https://jdetera.com)



## Faculty and Staff AI Resource Repository

<https://jdetera.com/AIFacultySite>

### Quick Links

Getting Started with AI

Syllabus Templates

Prompting

AI Articles

AI & Academic Integrity

AI Tools Directory

### Teaching Innovation Hub

Discover ways to enhance your teaching with AI-powered tools and strategies.

Evidence-Based Integration Strategies

Time-Saving Teaching Workflows

Course Design Optimization

### Student Success

Resources for promoting effective AI use in student learning.

AI as a Learning Assistant

Study Enhancement Strategies

Research & Writing Support

### Department Resources

Discipline-specific AI integration guides and resources.

English & Writing

Mathematics

Biology

### Professional Development

Enhance your AI knowledge and

Training Materials

Workshop Resources

Best Practices

Case Studies

### Academic Integrity

Guidelines for maintaining academic integrity in the AI era.

Policy Guidelines

Assignment Design

Detection vs. Prevention

Student Guidelines

### Implementation Tools

Practical tools and templates for AI integration.

Syllabus Templates

Assignment Examples

Assessment Tools

Documentation Templates



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### AI Articles

#### Featured Article

### Strategic Framework for Integrating AI into Teaching and Learning

The Strategic Framework for Integrating AI into Teaching and Learning is a comprehensive guide consisting of six key components designed to help educational institutions effectively implement AI technologies

[Read Featured Article](#)

#### AI Detection Tools: What Actually Works? 3/31

Discover the reliability and strategic use of popular AI detection tools like Turnitin and GPTZero, and how to effectively combine them with human observation.

[Read More](#)

#### Creating AI-Enhanced Assignments Without Losing Academic Integrity 12/10

Learn how to design assignments that incorporate AI meaningfully while maintaining rigorous academic standards and fostering student learning.

[Read More](#)

#### Quick AI Tools to Reduce Your Grading Time 1/6

Explore practical strategies to streamline your grading process using AI tools, ensuring efficiency and maintaining high-quality feedback.

[Read More](#)

# Today isn't about replacing your work - it's about enhancing it.

Today's AI tools are like having a knowledgeable teaching assistant - helpful *but requiring supervision*

You already use technology tools like Word, Powerpoint, etc - *AI is just another tool in your toolkit*

Key principle: *AI augments rather than replaces your expertise*

Imagine cutting your routine tasks in half while improving quality ...

# Workshop Goals

## *AI Key Topics*



- ❖ Learn which tasks AI can effectively assist with
  - ❖ Learn how to write effective prompts
  - ❖ Learn about Custom Instructions
-



# Workshop Goals

## *Creating Content*



- ❖ Course Assignments
  - ❖ Rubrics
  - ❖ Exams/Quizzes
  - ❖ Templates
  - ❖ Question Banks
-

# Workshop Goals

## *Assessment Activities*



- ❖ Grading Assistant
- ❖ Self-Assessment

# AI Productivity Toolkit

## Prerequisites



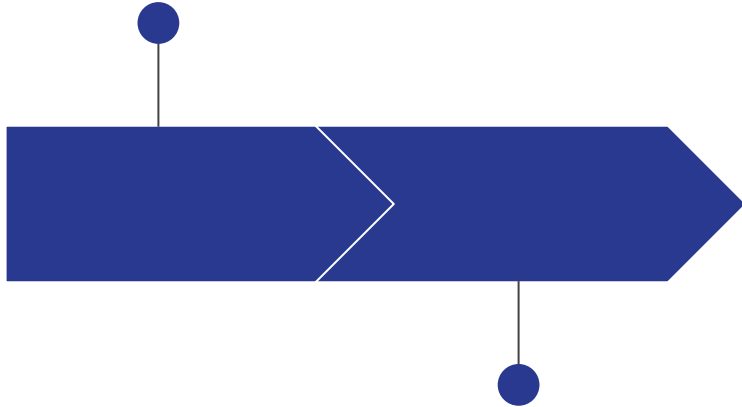


## AI-Suitable Tasks





## AI-Suitable Tasks



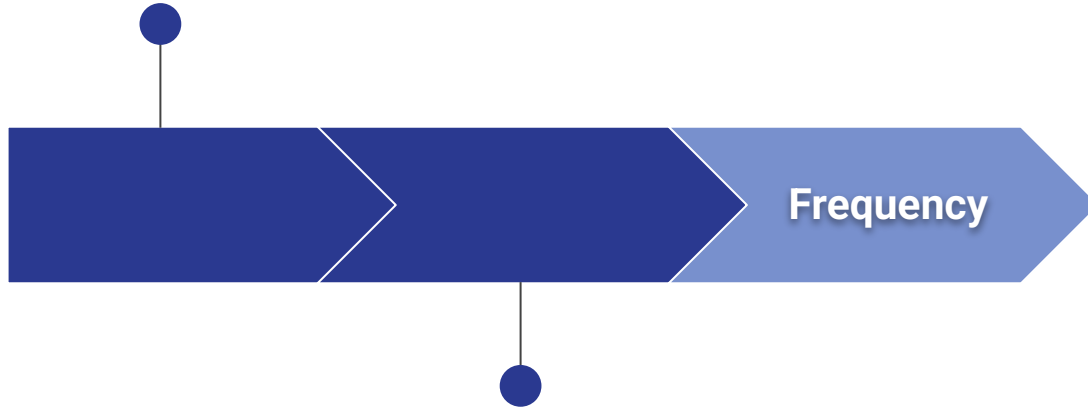
Identify Repetitive  
Tasks





## AI-Suitable Tasks

**Frequency:** The task occurs regularly - typically daily, weekly, or throughout a semester.



Frequency

Identify Repetitive  
Tasks

- Formatting citations and references
- Creating lesson plan templates
- Generating student progress reports
- Organizing research notes

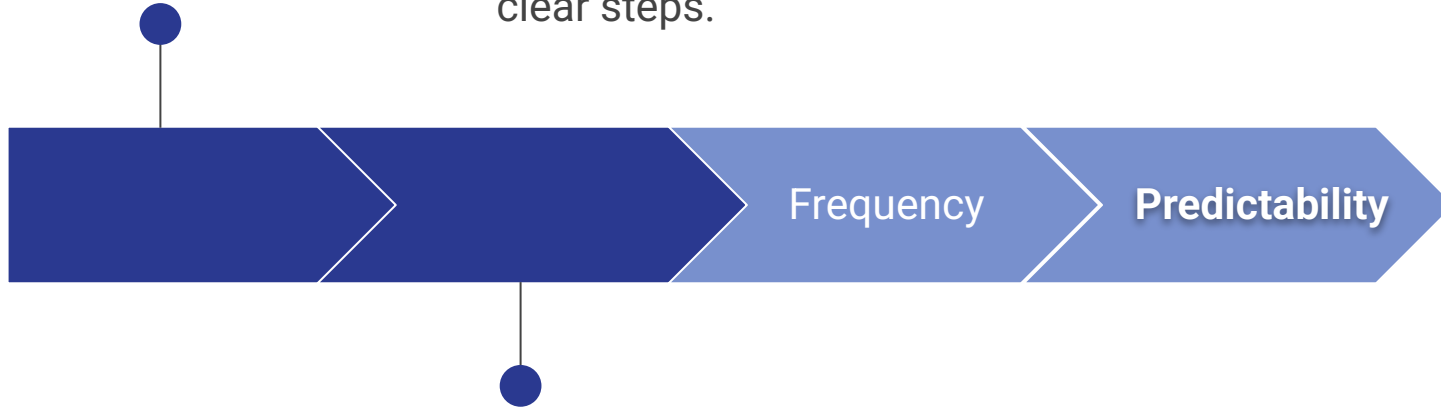






## AI-Suitable Tasks

**Predictable Pattern:** The task follows a consistent structure or workflow that can be broken down into clear steps.



Identify Repetitive  
Tasks

- Defined inputs and outputs
- Consistent rules or guidelines
- Similar decision points
- Standard formatting requirements





## AI-Suitable Tasks

**Low Complexity in Decision Making:** While the task may be detailed, the core decision-making process is:



Identify Repetitive  
Tasks

- Rule-based rather than requiring complex judgment
- Based on clear criteria
- Follows established protocols or guidelines





AI-Suitable Tasks

## Course Material Generation



Identify Repetitive  
Tasks

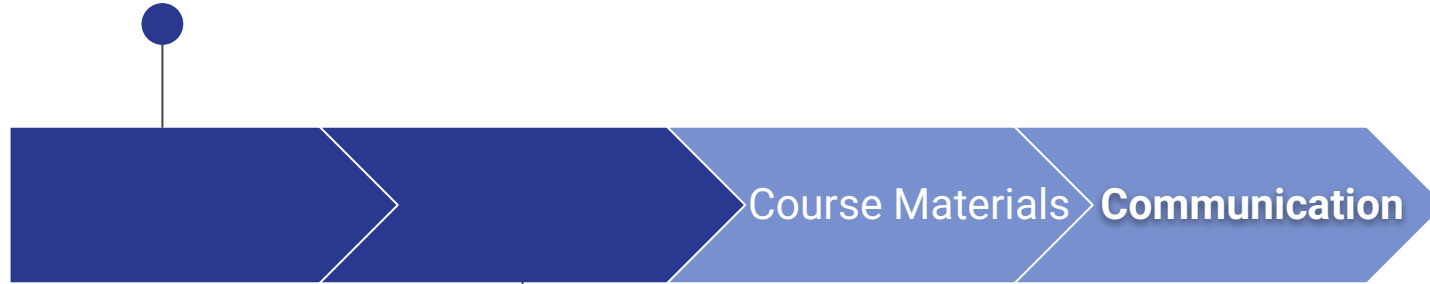
- Creating multiple versions of quiz questions from existing templates
- Generating preliminary lecture outlines from course objectives
- Converting academic papers into lecture-friendly summaries
- Creating study guides based on lecture content

**Professors**/Staff



## Student Communication

AI-Suitable Tasks



Identify Repetitive  
Tasks

- Drafting initial responses to common student emails (extension requests, office hour scheduling)
- Creating personalized feedback templates for assignments
- Generating preliminary response drafts for routine academic advising questions
- Crafting course announcements from bullet points



AI-Suitable Tasks

## Assessment Tasks



Identify Repetitive  
Tasks

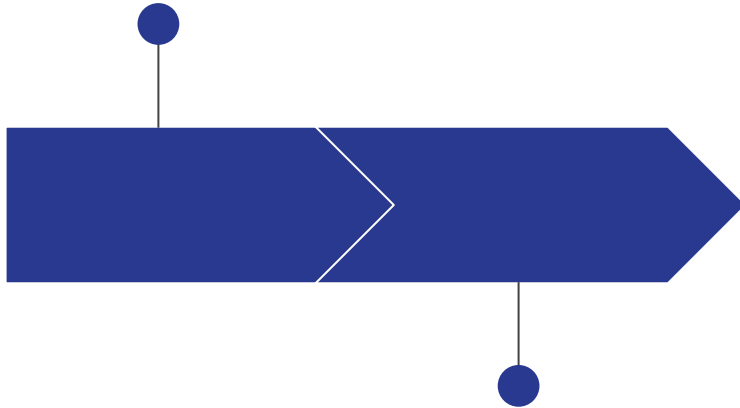
- Creating rubric descriptions from learning objectives
- Generating preliminary feedback on student drafts
- Organizing and categorizing student submission patterns
- Creating assignment prompts from course objectives

**Professors**/Staff





AI-Suitable Tasks



Identify Repetitive  
Tasks



## AI-Suitable Tasks

# Document Processing



## Identify Repetitive Tasks

- Summarizing meeting minutes and creating action item lists
- Formatting departmental reports
- Converting various document formats (PDF to Word, etc.)
- Standardizing document templates across departments



## AI-Suitable Tasks

# Communication Management



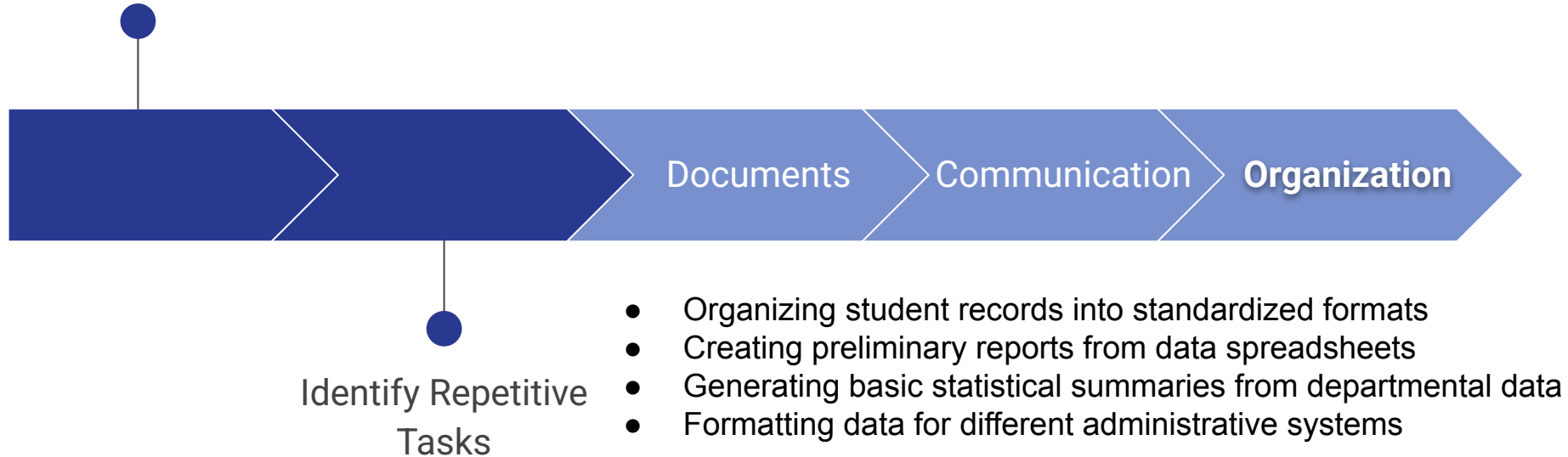
## Identify Repetitive Tasks

- Creating draft responses for routine inquiries
- Generating template-based emails for events and deadlines
- Creating initial drafts of newsletters
- Formatting mass communications



AI-Suitable Tasks

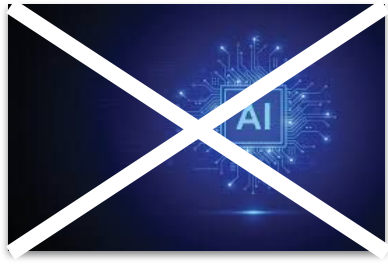
## Data Organization



## AI-Suitable Tasks



## Non-AI-Suitable Tasks



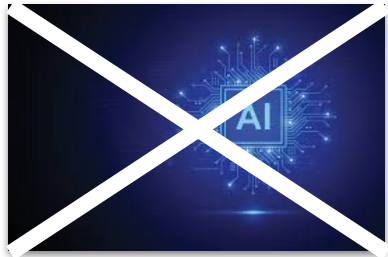


# Sensitive Decisions

AI-Suitable Tasks



Non-AI-Suitable Tasks



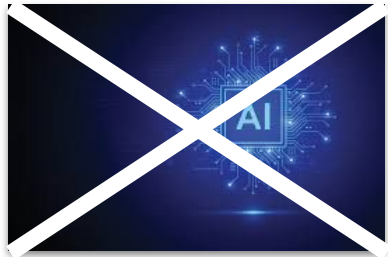
- Final grades
- Student accommodations
- Personnel matters
- Financial approvals

# Complex Evaluations

**AI-Suitable Tasks**



**Non-AI-Suitable Tasks**



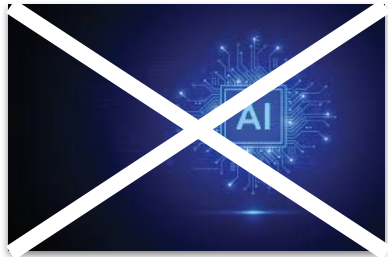
- Student performance assessment
- Program evaluations
- Research conclusions
- Professional recommendations

# Personal Discussions

## AI-Suitable Tasks



## Non-AI-Suitable Tasks



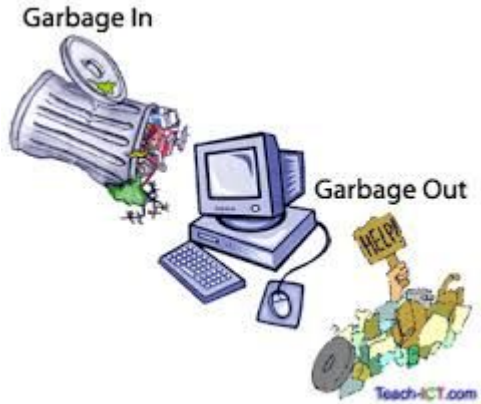
- Emotional support
- Conflict resolution
- Career guidance
- Mentoring relationships

# AI Productivity Toolkit

## Prompting

# Prompting

Prompting is the art of communicating effectively with AI by crafting inputs that elicit the ***most useful and accurate outputs***.





# Prompting

Prompting is the art of communicating effectively with AI by crafting inputs that elicit the ***most useful and accurate outputs***.



## Key Elements

### Clarity and Specificity

- Be explicit about your requirements and expectations
- Include relevant context and background information
- Specify the desired format, tone, and length of the response
- Use concrete examples when possible

**Example:** Poor prompt: "Write about dogs" Better prompt: "Write a 500-word guide about choosing the right dog breed for families with young children, focusing on temperament and care requirements"

# Prompting

Prompting is the art of communicating effectively with AI by crafting inputs that elicit the ***most useful and accurate outputs***.



## Key Elements

Clarity and Specificity

Structure and Components

**Task description:** What needs to be done

**Context:** Background information and relevant details

**Constraints:** Limitations or specific requirements

**Format:** Desired output structure

**Role/Perspective:** If specific expertise is needed

**Examples:** Sample inputs and outputs when helpful

---

# Prompting

Prompting is the art of communicating effectively with AI by crafting inputs that elicit the ***most useful and accurate outputs***.



## Key Elements

Clarity and Specificity

Structure and Components

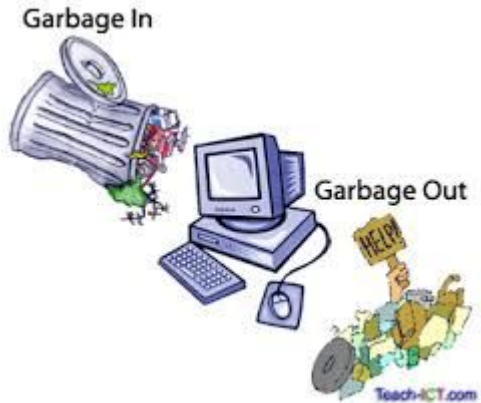
Prompt Engineering Techniques

- Zero-Shot Prompting
  - One-Shot Prompting
  - Few-Shot Prompting
  - Chain-of-Thought Prompting
-



# Prompting

Prompting is the art of communicating effectively with AI by crafting inputs that elicit the ***most useful and accurate outputs***.



## Iterative Refinement

- Start with a basic prompt
- Analyze the response
- Refine based on results
- Repeat until satisfactory

## Clear Instructions

- Use active voice
- Break complex tasks into smaller steps
- Provide context before questions
- Specify any constraints or limitations

## Common Pitfalls to Avoid

- Being too vague or ambiguous
- Overloading with unnecessary information
- Contradictory instructions
- Assuming AI understands implied context

# Prompting

Prompting is the art of communicating effectively with AI by crafting inputs that elicit the ***most useful and accurate outputs***.



## 1. Role-Based Prompting

- Assigning specific roles to the AI
- Useful for specialized knowledge or perspective
- **Example:** "As an experienced pediatrician, explain..."

## 2. Template-Based Prompting

- Creating reusable prompt structures
- Maintaining consistency across similar tasks
- **Example:**

```
Topic: [Insert Topic]  
Audience: [Target Audience]  
Format: [Desired Format]  
Length: [Word Count]  
Tone: [Formal/Informal]
```

## 3. System and User Message Structure

- System messages for setting context and behavior
- User messages for specific instructions
- Maintaining consistent interaction patterns



# AI Productivity Toolkit

## Custom Instructions

# Custom Instructions

Custom instructions are personalized guidelines that users can set for AI assistants like Claude or Chat GPT to tailor their responses to specific preferences, needs, or contexts. **These instructions persist across conversations**, functioning as standing preferences that shape how the AI interacts with you.

- Consistent response format
  - Domain-specific expertise
  - Workflow efficiency
  - Level of detail control
  - Background context
  - Streamlined collaboration
-

# Custom Instructions

Custom instructions are personalized guidelines that users can set for AI assistants like Claude or Chat GPT to tailor their responses to specific preferences, needs, or contexts. **These instructions persist across conversations**, functioning as standing preferences that shape how the AI interacts with you.

## My Custom Instructions

1. Carefully evaluate every question from me, and determine the most appropriate field of study related to it
  2. Determine the occupation of the expert that would give the best answer
  3. Adopt the role of that expert and respond to my question utilizing the experience, vocabulary, knowledge and understanding of that expert's field of study
  4. Before answering, ask me questions that you know will help you provide a better answer to my initial question.
- \*\*Expert\*\***: [your assumed expert role]  
**\*\*Objective\*\***: [single concise sentence describing your current objective]  
**\*\*Assumptions\*\***: [your assumptions about my question, intent, and context]
- [your response]

# Custom Instructions

Custom instructions are personalized guidelines that users can set for AI assistants like Claude or Chat GPT to tailor their responses to specific preferences, needs, or contexts. **These instructions persist across conversations**, functioning as standing preferences that shape how the AI interacts with you.

“Can all chords be in 1st, 2nd, or 3rd inv? for example, a Cm11 - what is a Cm11 in 1st inversion?”

**Expert:** Music Theorist

**Objective:** Explain the concept of inversions for extended chords

**Assumptions:** You're curious about the theoretical possibilities of applying inversions to complex extended chords like Cm11

**In music theory, while all chords can technically be inverted, inversions become increasingly complex and less common as chords become more extended.**

**For a Cm11 chord, the notes are: C (root), E ♭ (♭ 3), G (5), B ♭ (♭ 7), D (9), F (11) ...**

# Custom Instructions

Custom instructions are personalized guidelines that users can set for AI assistants like Claude or Chat GPT to tailor their responses to specific preferences, needs, or contexts. **These instructions persist across conversations**, functioning as standing preferences that shape how the AI interacts with you.

## Examples

1. Custom Instructions can be set to include department's citation style guide and feedback policies
    - Generate feedback for a student's essay that lacks proper citations, following our department's guidelines
  2. Based on these three examples of my previous feedback: [examples]
    - Generate similar feedback for a student's essay with citation issues, maintaining my supportive yet direct tone
-

# AI Productivity Toolkit

## Assignment Creation

# Assignment Creation

We need to create an research assignment for our Environmental Science course.

Let's start simple.



We can do better than that!

## Prompt:

Design a comprehensive undergraduate research paper assignment focused on climate change for a 200-level Environmental Science course. The assignment should challenge students to engage deeply with climate science while developing their research and analytical skills.

**Makes no mention of the material we've gone over in class.**

**Does not mention learning objectives.**

**Does not mention assignment parameters.**

**Does not mention timeline.**

\_\_\_\_ **Does not mention supporting materials.**

# Assignment Creation

We need to create an research assignment for our Environmental Science course.

## Learning Objectives

### Prompt:

Design a comprehensive undergraduate research paper assignment focused on climate change for a 200-level Environmental Science course. The assignment should challenge students to engage deeply with climate science while developing their research and analytical skills.

Please include:

#### 1. Learning Objectives

- Specify 4-5 measurable outcomes
  - Align with both content knowledge and skill development
  - Include critical thinking components
-



# Assignment Creation

We need to create an research assignment for our Environmental Science course.

## Assignment Parameters

### Prompt:

Design a comprehensive undergraduate research paper assignment focused on climate change for a 200-level Environmental Science course. The assignment should challenge students to engage deeply with climate science while developing their research and analytical skills.

Please include:

#### 2. Assignment Parameters

- Word count/page requirements (max: 1500-2000 words)
- Source requirements (number and type) (min sources: 5)
- Required sections and their contents
- Formatting guidelines
- Any specific content areas that must be addressed
- Options for topic selection

# Assignment Creation

We need to create an research assignment for our Environmental Science course.

## Timeline

### Prompt:

Design a comprehensive undergraduate research paper assignment focused on climate change for a 200-level Environmental Science course. The assignment should challenge students to engage deeply with climate science while developing their research and analytical skills.

Please include:

#### **3. Timeline (max: 4 weeks)**

- **Break down the assignment into specific milestones**
  - **Include checkpoints for feedback**
  - **Specify deadlines for each component**
-

# Assignment Creation

We need to create an research assignment for our Environmental Science course.

## Supporting Materials

### Prompt:

Design a comprehensive undergraduate research paper assignment focused on climate change for a 200-level Environmental Science course. The assignment should challenge students to engage deeply with climate science while developing their research and analytical skills.

Please include:

#### 4. Support Materials

- Required resources
  - Suggested research databases
  - Writing support guidelines
  - Assessment criteria
-

# Assignment Creation

We need to create an research assignment for our Environmental Science course.

## Lecture Notes

### Prompt:

Design a comprehensive undergraduate research paper assignment focused on climate change for a 200-level Environmental Science course. The assignment should challenge students to engage deeply with climate science while developing their research and analytical skills.

**Using the provided lecture notes, ensure the assignment:**

- Incorporates key themes from the course material
  - Builds on foundational concepts
  - Challenges students to make connections between different aspects of climate science
  - Encourages analysis of both scientific evidence and potential solutions
-

# Assignment Creation

We need to create an research assignment for  
our Environmental Science course.

## Variation

### Prompt:

Design a comprehensive undergraduate research paper assignment focused on climate change for a 200-level Environmental Science course. The assignment should challenge students to engage deeply with climate science while developing their research and analytical skills.

**Please provide variations of this assignment for:**

- **Advanced students (e.g., honors section)**
  - **Students needing additional writing support**
-

Design a comprehensive undergraduate research paper assignment focused on climate change for a 200-level Environmental Science course. The assignment should challenge students to engage deeply with climate science while developing their research and analytical skills.

Please include:

1. Learning Objectives

- Specify 4-5 measurable outcomes
- Align with both content knowledge and skill development
- Include critical thinking components

2. Assignment Parameters

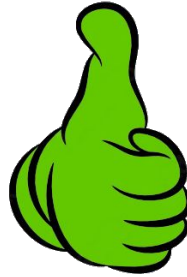
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- Source requirements (number and type) (min sources: 5)
- Required sections and their contents
- Formatting guidelines
- Any specific content areas that must be addressed
- Options for topic selection

3. Timeline (max: 4 weeks)

- Break down the assignment into specific milestones
- Include checkpoints for feedback
- Specify deadlines for each component

4. Support Materials

- Required resources
- Suggested research databases
- Writing support guidelines
- Assessment criteria



Using the provided lecture notes, ensure the assignment:

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- Builds on foundational concepts
- Challenges students to make connections between different aspects of climate science
- Encourages analysis of both scientific evidence and potential solutions

Please provide variations of this assignment for:

- Advanced students (e.g., honors section)
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# Assignment Creation

**Setup a GPT to act as your  
“Research Assignment Template”**

<https://chatgpt.com/g/g-67b90e2c98fc81918f02dd508bae7d9b-research-assignment-creator>




## Research Assignment Creator

Creates structured research assignments based on user input.



## Research Assignment Creator

By James F DeTerra III 

Creates structured research assignments based on user input.

Start Questions

# Assignment Creation

Setup a GPT to act as your  
“Research Assignment Template”

<https://chatgpt.com/g/g-67b90e2c98fc81918f02dd508bae7d9b-research-assignment-creator>

Great! Let's get started.

1. **What class is this for?**
2. **What level is the class?** (100, 200, 300, or 400)
3. **What is the topic of the research paper?**
4. **Would you like to include measurable learning objectives?** If so, how many? (0 = not included)
5. **What is the word/page count minimum?** (0 = not included)
6. **What is the maximum number of weeks students will have to complete the assignment?** (0 = not included)

Let me know your answers, and I'll generate a structured research assignment for you!





# AI Productivity Toolkit

## Exam Creation

# Ways AI Can Help College Teachers with Exam Creation

## Question Generation and Diversity

1. **Automated Question Banks**
2. **Bloom's Taxonomy Alignment**
3. **Discipline-Specific Question Formulation**

---

# Ways AI Can Help College Teachers with Exam Creation

## Question Generation and Diversity

1. Automated Question Banks
2. Bloom's Taxonomy Alignment
3. Discipline-Specific Question Formulation

## Assessment Design

1. Exam Blueprint Generation
  2. Customized Rubric Creation
  3. Randomized Version Creation
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## Accessibility and Inclusivity

1. Language Simplification
  2. Accommodation Suggestions
  3. Cultural Bias Detection
-

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## Efficiency Tools

1. Answer Key Generation
2. Exam Time Estimation
3. Content Coverage Analysis

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## Efficiency Tools

1. Answer Key Generation
2. Exam Time Estimation
3. Content Coverage Analysis

## Integration with Learning Systems

1. Direct LMS Import
2. Auto-formatting

# Exam Creation

*example*

We need to create an exam for our Water Conservation course.

Let's start simple.



We can do better than that!

## Prompt:

Create a comprehensive exam for undergraduate college students in a Water Conservation course, focusing specifically on the physical, chemical, and biological properties of water.

**Makes no mention of the material we've gone over in class.**

**Does not mention question types.**

**Does not mention learning objectives.**

**Does not mention an answer key.**

**Does not mention grading criteria.**

---

# Exam Creation

*example*

We need to create an exam for our Water Conservation course.

**Lecture Notes**

## Prompt:

Create a comprehensive exam for undergraduate college students in a Water Conservation course, focusing specifically on the physical, chemical, and biological properties of water.

The exam should:

**Using the provided lecture notes, ensure the exam uses this information when creating exam questions.**

---



# Exam Creation

*example*

We need to create an exam for our Water Conservation course.

## Question Types

### Prompt:

Create a comprehensive exam for undergraduate college students in a Water Conservation course, focusing specifically on the physical, chemical, and biological properties of water.

The exam should:

**1. Include 40 questions total with the following question types:**

- multiple-choice
  - matching
  - true/false
  - multiple-answer
  - ordering
-

# Exam Creation

*example*

We need to create an exam for our Water Conservation course.

## Learning Objectives

### Prompt:

Create a comprehensive exam for undergraduate college students in a Water Conservation course, focusing specifically on the physical, chemical, and biological properties of water.

The exam should:

### Align with these learning objectives:

- Explain how water's unique properties influence its behavior in natural systems
- Calculate and interpret quantitative measurements related to water properties
- Analyze how molecular structure relates to macroscale water phenomena
- Evaluate how water properties impact conservation approaches - Apply scientific principles to real-world water management scenarios

# Exam Creation

*example*

We need to create an exam for our Water Conservation course.

**Scoring, Timing  
Recommendations, and  
Answer Key**

## Prompt:

Create a comprehensive exam for undergraduate college students in a Water Conservation course, focusing specifically on the physical, chemical, and biological properties of water.

The exam should:

**Include the following for each question:**

- Clear marking of point values (total exam: 100 points)
  - Approximate time needed for each section
  - Complete answer key with explanations
-

**Create a comprehensive exam for undergraduate college students in a Water Conservation course, focusing specifically on the physical, chemical, and biological properties of water. The exam should:**

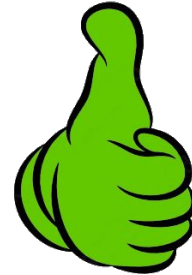
**1. Include 40 questions total with the following question types:**

- multiple-choice**
- matching**
- true/false**
- multiple-answer**
- ordering**

**2. Using the provided lecture notes, ensure the exam uses this information when creating exam questions.**

**3. Align with these learning objectives:**

- Explain how water's unique properties influence its behavior in natural systems**
- Calculate and interpret quantitative measurements related to water properties**
- Analyze how molecular structure relates to macroscale water phenomena**
- Evaluate how water properties impact conservation approaches**
- Apply scientific principles to real-world water management scenarios**



**4. Include the following for each question:**

- Clear marking of point values (total exam: 100 points)**
- Approximate time needed for each section**
- Complete answer key with explanations**

# AI Productivity Toolkit

## **Grading Assistant**

# Grading Assistant

- **Rubric Application**
- **Written Assignments**
- **Problem Sets and Calculations**
- **Programming Assignments**
- **Group Projects**



- **Consistency checking:** Input your grading rubric and have AI review a sample of graded assignments to ensure you're applying criteria consistently across students
  - **Comment generation:** After you assign scores on a rubric, AI can draft detailed feedback comments that align with those scores, which you can then review and personalize
  - **Rubric-aligned feedback:** Upload student work and your rubric, then ask AI to generate specific feedback tied to each rubric dimension
-

# Grading Assistant

- Rubric Application
- **Written Assignments**
- Problem Sets and Calculations
- Programming Assignments
- Group Projects



- **Structure analysis:** AI can analyze essays for proper structure (intro, body paragraphs, conclusion) and highlight organizational issues
  - **Citation checking:** Have AI identify citation patterns and potential inconsistencies in formatting
  - **Evidence usage:** AI can analyze how effectively students have integrated evidence from sources and suggest areas where more support is needed
  - **Argument coherence:** Ask AI to evaluate the logical flow of arguments and identify potential gaps in reasoning
-

# Grading Assistant

- Rubric Application
- Written Assignments
- Problem Sets and Calculations
- Programming Assignments
- Group Projects



- **Solution pathway analysis:** For math or science problems, have AI identify where students deviated from correct solution pathways
- **Common error identification:** AI can recognize patterns of conceptual misunderstandings across the class
- **Partial credit assistance:** When students get incorrect answers, AI can help identify which parts of multi-step problems were done correctly



# Grading Assistant

- Rubric Application
- Written Assignments
- Problem Sets and Calculations
- **Programming Assignments**
- Group Projects



- **Code review:** AI can evaluate code for efficiency, style, and proper implementation of required concepts
- **Test case generation:** Create custom test cases to verify student code functionality
- **Bug explanation:** Have AI explain bugs in student code in educational terms that help students understand their mistakes
- **Documentation assessment:** Evaluate how well students have commented and documented their code
-

# Grading Assistant

- Rubric Application
- Written Assignments
- Problem Sets and Calculations
- Programming Assignments
- **Group Projects**



- **Contribution analysis:** Review meeting notes or project management tools to help assess individual contributions
  - **Collaboration quality:** Analyze group communication patterns to identify effective or problematic team dynamics
  - **Peer evaluation support:** Help interpret and summarize peer evaluations to identify patterns
-

# Grading Assistant

## Common Issues:

Grading fatigue leading to stricter/lenient scoring over time

Different interpretations of rubric criteria

Maintaining objectivity across multiple sections

Ensuring fairness between early and late submissions

# Consistency in Assessment

## Feedback Templates

### Prompt:

“Create a structured feedback template for grading lab reports that covers:

1. Methodology assessment
2. Data analysis
3. Conclusion validity
4. Common errors to check

Format it so I can quickly customize it for each student.”

---

# Grading Assistant

## Self-Assessment



## Grading Analysis

### Prompt:

Review these three graded examples of student work where I gave scores of 85%, 78%, and 92%.

Analyze my grading patterns and create a standardized checklist that captures my assessment criteria consistently.

Each report was graded using a standard rubric with comments provided in margins. Key patterns:

- Emphasis on proper uncertainty analysis
  - Requirement for multiple trials
  - Clear presentation of data
  - Theoretical understanding
  - Professional formatting
-

# AI Productivity Toolkit

## **AI-Powered Question Bank Generation**

# Question Bank

- **Basic Question Bank Generation**
- Subject-Specific Adaptation
- Customized Difficulty Distribution
- Question Refinement
- Learning Objective Alignment



## Prompt:

Generate a question bank for a college-level algorithms course covering parallel algorithms.

Create 100 questions total, distributed as follows:

- 20 basic recall questions (Bloom's level 1)
- 20 comprehension questions (Bloom's level 2)
- 20 application questions (Bloom's level 3)
- 20 analysis questions (Bloom's level 4)
- 20 synthesis/evaluation questions (Bloom's levels 5-6)

For each question:

1. Indicate the specific topic and learning objective
2. Note the difficulty level (1-5)
3. Provide the correct answer and explanation
4. For multiple choice questions, include 3-4 plausible distractors with explanations of why they're incorrect

# Question Bank

- Basic Question Bank Generation
- **Subject-Specific Adaptation**
- Customized Difficulty Distribution
- Question Refinement
- Learning Objective Alignment



## Prompt:

I'm teaching Introduction to Biology at the college level. Based on the following key concepts from my lecture notes and syllabus, generate a balanced question bank:

### Key Concepts:

1. **Cell Theory and Cellular Organization** - The understanding that all living organisms are composed of cells, cells are the basic unit of structure and function in living things, and all cells
- ...
- ...

### For each concept, create:

- 2 basic factual questions
- 3 application questions requiring students to apply the concept
- 1 complex scenario-based question requiring integration of multiple concepts

### Format each question with:

- Question text
- Answer key with detailed explanation
- Estimated time to answer
- Difficulty rating (1-5)

# Question Bank

- Basic Question Bank Generation
- Subject-Specific Adaptation
- **Customized Difficulty Distribution**
- Question Refinement
- Learning Objective Alignment



## Prompt:

Create an exam question bank for my business statistics class with this specific difficulty distribution:

- 20% Easy questions (students with basic understanding should answer correctly)
- 50% Medium questions (students with solid understanding should answer correctly)
- 20% Challenging questions (only students with thorough understanding will answer correctly)
- 10% Advanced questions (designed to differentiate top performers)

Include a mix of multiple choice, multiple answer, true/false, and matching question types. For each question, provide:

1. The question
2. Sample answer or solution
3. Grading rubric with point allocation
4. Common misconceptions or errors to watch for



# Question Bank

- Basic Question Bank Generation
- Subject-Specific Adaptation
- Customized Difficulty Distribution
- **Question Refinement**
- Learning Objective Alignment



## Prompt:

Review and improve the following exam questions for my Introduction to Psychology course:

For each question:

1. Assess clarity and precision of language
2. Evaluate the difficulty level (1-5)
3. Suggest improvements to make the question more effective
4. Identify any potential issues (ambiguity, cultural bias, etc.)
5. Provide an improved version of the question

# Question Bank

- Basic Question Bank Generation
- Subject-Specific Adaptation
- Customized Difficulty Distribution
- Question Refinement
- **Learning Objective Alignment**



## Prompt:

Based on these course learning objectives, generate appropriate assessment questions:

### Learning Objectives:

1. **Analyze Primary Sources:** Students will be able to critically analyze primary historical documents from different time periods in American history, identifying the author's perspective, historical context, and significance to broader historical developments.
2. **Explain Major Historical Shifts:** Students will be able to explain the causes, key events, and consequences of major transformations in American history (such as the American Revolution, Civil War, Progressive Era, Great Depression, and Civil Rights Movement), demonstrating understanding of how these events connect to larger historical patterns.
3. **Evaluate Historical Interpretations:** Students will be able to compare and evaluate competing historical interpretations of significant events or periods in American history, recognizing how historiography evolves and how historical narratives are shaped by the time in which they are written.

For each learning objective, create:

- 3 questions that directly assess mastery of this objective
- Vary question types and difficulty levels
- Indicate how each question maps to the objective
- Provide grading criteria that aligns with the objective's importance

# AI Productivity Toolkit

## **Rubric Creation with Style Integration**

# Rubric Creation

## Benefits of AI-Assisted Rubric Creation

1. **Efficiency:** Generates comprehensive first drafts of rubrics in minutes rather than hours
2. **Consistency:** Ensures alignment between learning objectives and assessment criteria
3. **Comprehensiveness:** Helps identify assessment dimensions that might be overlooked
4. **Standardization:** Maintains consistent language and structure across course rubrics
5. **Adaptability:** Easily customizes generic rubrics for specific assignments or disciplines

Create a detailed assessment rubric for an upper-level psychology research methods course.

### Assignment Description:

Students will work in groups of 3-4 to design and present a proposed psychological experiment based on a research question of their choice. The presentation should be 15 minutes long with 5 minutes for questions and should include slides. Groups will present their research question, hypotheses, methodology, expected results, and potential implications.

### Learning Objectives:

1. Develop a testable research question and hypotheses grounded in psychological theory
2. Design an appropriate experimental methodology with consideration of validity and ethical issues
3. Demonstrate understanding of appropriate statistical analyses for the proposed research design

Include 4-5 assessment dimensions with criteria for excellent, proficient, developing, and unsatisfactory performance.

# Rubric Creation

## Benefits of AI-Assisted Rubric Creation

1. **Efficiency:** Generates comprehensive first drafts of rubrics in minutes rather than hours
2. **Consistency:** Ensures alignment between learning objectives and assessment criteria
3. **Comprehensiveness:** Helps identify assessment dimensions that might be overlooked
4. **Standardization:** Maintains consistent language and structure across course rubrics
5. **Adaptability:** Easily customizes generic rubrics for specific assignments or disciplines

Create a rubric for evaluating student projects in my Mechanical Engineering course that:

1. Incorporates discipline-specific expectations about
  - ABET criteria for engineering design
  - ASME/IEEE professional standards for technical documentation

...

2. Aligns with these program outcomes:
  - a. Apply engineering principles to identify, formulate, and solve complex engineering problems

...

3. Uses a [3/4/5]-level scoring system
4. Includes both quantitative scores and qualitative descriptors
5. Provides clear distinctions between performance levels

The rubric should be appropriate for undergraduate students and reflect current best practices in Mechanical Engineering education.

# AI Productivity Toolkit

## **Communication Style, Tone, and Structure**

# Communication Style, Tone, and Structure

It is easy to get AI to match your communication style during the creation activities.



## Implementation Techniques

- Two-stage approach
- Custom Instructions
- Iterative Refinement
- Template Creation Strategy

# Communication Style, Tone, and Structure

It is easy to get AI to match your communication style during the creation activities.

## Examples

Create an email template for announcing our annual department review process to faculty.

Match my communication style with these characteristics:

- I use a supportive but direct tone that acknowledges faculty workloads
- I typically begin emails with context before introducing new requirements
- I use bullet points for action items and deadlines
- I avoid administrative jargon when possible
- I include a personal note of encouragement in my conclusion
- I typically sign off with "Collegially," rather than "Regards" or other closings

Here's an example of a previous email I sent to faculty:  
[PASTE EXAMPLE EMAIL]

The email should include:

1. Reminder of the purpose of annual reviews
2. Key dates for submission of materials
3. Changes to the process from last year
4. Where to find resources and templates
5. Offer for one-on-one support



*Email*

# Templates

*In my writing style*

AI can help generate various templates while **preserving your unique communication style, tone, and organizational structure**. These customized templates maintain your personal approach to communication throughout.



## Style Analysis

**Prompt:**

Analyze these sample emails I've sent to students:  
[examples]

Identify key elements of my communication style,  
tone, and structure

---

*Email*

# Templates

*In my writing style*

AI can help generate various templates while **preserving your unique communication style, tone, and organizational structure**. These customized templates maintain your personal approach to communication throughout.



## Style Analysis

**Prompt:**

Analyze these sample emails I've sent to students:  
[examples]

Identify key elements of my communication style, tone, and structure

## Template Creation

**Prompt:**

Using my identified communication patterns and following institutional guidelines in custom instructions, create templates for:

- Late assignment responses
- Academic integrity concerns
- Progress updates

...

---

# Assignment Design

*In my writing style*



## Progressive Customization

### 1. Initial Setup:

Custom Instructions include: institutional policies, grading scales, and preferred terminology

### 2. Style Integration:

Prompt:

“Review these three assignments I've created:  
[examples]

Analyze my assignment structure and language patterns”

### 3. Final Production:

Prompt:

“Create a new assignment that:

- Follows the structural patterns you identified
- Incorporates our institutional requirements from custom instructions
- Maintains my voice and presentation style”

# AI Productivity Toolkit

## **Statements on AI in Your Syllabus**

# Syllabus and AI

The rapid integration of artificial intelligence tools into the academic landscape necessitates clear policy guidelines in course syllabi.

## **Definitions and Scope**

General Policy on AI Use

Prohibited Uses

Permitted Uses

Disclosure Requirements

Consequences of Policy Violation

Rationale

Questions About AI Use

# Artificial Intelligence Policy

## Definitions and Scope

For the purposes of this course, "AI tools" refers to generative artificial intelligence technologies including but not limited to: ChatGPT, Claude, Gemini, DALL-E, Midjourney, and similar large language or image generation models.

# Syllabus and AI

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Definitions and Scope

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## Artificial Intelligence Policy

### General Policy on AI Use

This course primarily restricts the use of AI tools in assignment completion. However, limited applications are permitted with proper disclosure, as detailed below.

### Prohibited Uses

The following uses of AI are strictly prohibited in this course:

1. **Assignment Completion:** Using AI to generate essays, complete problem sets, write code, or produce any work that is submitted as your own original thinking.
2. **Response Generation:** Using AI to formulate responses to discussion questions without substantial editing and intellectual contribution.
3. **Exam Assistance:** Using AI during any quiz, test, or examination.
4. **Undisclosed Use:** Any use of AI tools that is not explicitly disclosed as outlined below.

# Syllabus and AI

The rapid integration of artificial intelligence tools into the academic landscape necessitates clear policy guidelines in course syllabi.

Definitions and Scope

## **General Policy on AI Use**

Prohibited Uses

## **Permitted Uses**

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Questions About AI Use

# Artificial Intelligence Policy

## **General Policy on AI Use**

This course primarily restricts the use of AI tools in assignment completion. However, limited applications are permitted with proper disclosure, as detailed below.

## **Permitted Uses (With Required Disclosure)**

AI tools may be used in limited ways with proper disclosure:

1. **Brainstorming:** You may use AI to generate initial ideas, provided that you substantially develop these ideas using your own critical thinking.
2. **Editing Assistance:** You may use AI for grammar checking, sentence structure refinement, or clarity improvement (similar to Grammarly).
3. **Research Organization:** You may use AI to help organize research notes or synthesize information from sources you have already read and understood.

# Syllabus and AI

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Definitions and Scope

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## **Disclosure Requirements**

Consequences of Policy Violation

Rationale

Questions About AI Use

## Artificial Intelligence Policy

### Disclosure Requirements

When AI tools are used in permitted ways, you must:

#### **1. Include an "AI Disclosure Statement" at the end of your assignment that specifies:**

- The specific AI tool used
- The exact portions of work where AI was utilized
- How you used the AI (e.g., "I used ChatGPT to help brainstorm initial topic ideas, then developed my own thesis")
- The exact prompts you used (copy and paste)

#### **2. Submit both the AI-generated content and your final work to demonstrate your intellectual contribution.**

---



# Syllabus and AI

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**Consequences of Policy Violation**

Rationale

Questions About AI Use

## Artificial Intelligence Policy

### Consequences of Policy Violation

Undisclosed use of AI tools will be treated as academic dishonesty according to the university's academic integrity policy. Consequences may include:

- Receiving a zero on the assignment
- Failing the course
- Referral to the Office of Academic Integrity

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**Rationale**

Questions About AI Use

## Artificial Intelligence Policy

### Rationale

This policy is designed to:

1. Maintain the integrity of your learning experience
2. Ensure fair assessment of your abilities and knowledge
3. Develop critical thinking skills that cannot be outsourced to AI
4. Prepare you for professional environments where understanding the appropriate use of AI tools is increasingly important

---

# Syllabus and AI

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Consequences of Policy Violation

Rationale

**Questions About AI Use**

## Artificial Intelligence Policy

### Question About AI Use

If you are uncertain whether a specific use of AI is permitted, please ask me before proceeding.

---

## # Artificial Intelligence Policy

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2. Ensure fair assessment of your abilities and knowledge
3. Develop critical thinking skills that cannot be outsourced to AI
4. Prepare you for professional environments where understanding the appropriate use of AI tools is increasingly important

### ## Questions About AI Use

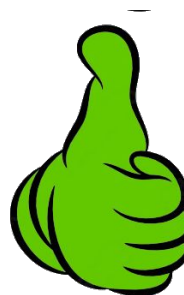
If you are uncertain whether a specific use of AI is permitted, please ask me before proceeding.

### ## Modifications to This Policy

As AI technologies evolve rapidly, this policy may be updated during the semester with appropriate notice.

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\*By remaining enrolled in this course, you acknowledge that you have read, understand, and agree to abide by this AI use policy.\*



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[illegible]