# Teaching Strategies: Integrating AI Thoughtfully

*Practical approaches for incorporating AI into your teaching practice*

---

## Start Where You Are

### Week 1: Personal Exploration

**Before asking students to use AI, try it yourself:** - Generate quiz questions for your next topic - Create discussion prompts for tutorials - Draft assignment rubrics - Summarise key readings

**Document:** What worked? What needed fixing? How long did it take?

### Week 2: Transparent Modeling

**Show students your process:** - "I used AI to generate these practice problems, then I…" - "Here's the original AI output and here's why I changed it" - "This rubric started with AI, but needed human expertise for…"

**Key:** Demonstrate critical evaluation, not blind acceptance

---

## Redesigning Assessments for an AI World

### From "What" to "How and Why"

**Traditional Assessment:** "Write a 2000-word essay on marketing strategy"

**AI-Aware Assessment Options:**

**Option A: Process Documentation** - Submit AI conversation transcript - Annotate where AI was wrong/limited - Reflection on how human expertise improved output - Final submission shows evolution of thinking

**Option B: In-Class Components** - AI-generated draft submitted before class - In-class critique and improvement - Peer review of AI use strategies - Live presentation of key insights

**Option C: Personal Application** - Connect theory to personal experience - Include specific local context - Require primary data collection - Emphasise unique perspective

---

## Practical Classroom Activities

### 1. AI Error Hunt (15 minutes)

**Setup:** Generate course content with deliberate errors **Activity:** Students identify and correct mistakes **Learning:** Critical evaluation, subject mastery **Debrief:** Why did AI make these errors?

### 2. Prompt Engineering Challenge (20 minutes)

**Setup:** Same question, groups craft different prompts **Activity:** Compare AI outputs from various prompts **Learning:** Importance of clear communication **Debrief:** What made prompts more/less effective?

### 3. Human vs AI Debate (30 minutes)

**Setup:** AI generates one side of argument **Activity:** Students argue opposite position **Learning:** Critical thinking, argument construction **Debrief:** What did AI miss about context/nuance?

### 4. AI Improvement Workshop (25 minutes)

**Setup:** AI creates initial solution/answer **Activity:** Groups enhance with human insight **Learning:** Value of domain expertise **Debrief:** What uniquely human elements were added?

---

## Setting Clear Expectations

### Sample Syllabus Statement

> **AI Use in This Course**
>
> Artificial Intelligence tools are part of professional practice in [field]. In this course:
>
> - You MAY use AI for brainstorming, drafting, and exploration
> - You MUST disclose all AI use in assignments

- You MUST verify all AI-generated content
- You CANNOT submit unedited AI content as your own work

Think of AI as a research assistant—helpful but requiring supervision. Your learning comes from evaluating and improving AI output, not from the output itself.

#### Disclosure Examples

**Simple:** "AI assisted with initial research"

**Detailed:** "Used ChatGPT to generate outline structure, refined with course concepts, verified statistics through library databases"

**Comprehensive:** Appendix with prompts, outputs, and modification log

---

### Managing Different Scenarios

#### When Students Over-Rely on AI

**Signs:** Generic responses, missing personal voice, can't explain work

**Strategies:** - Require hand-written components - Add oral examinations - Include reflection on process - Focus on application to specific contexts

#### When Students Fear Using AI

**Signs:** Anxious about "cheating", falling behind peers

**Strategies:** - Model your own AI use - Start with low-stakes activities - Provide clear guidelines - Share success examples

#### When AI Gives Wrong Information

**Opportunity:** Teaching moment about verification

**Strategies:** - Celebrate error detection - Discuss why AI made mistake - Practice fact-checking methods - Emphasise expertise value

---

## Progressive Integration Model

### Foundation Level (Weeks 1-4)

- Instructor demonstrates AI use
- Students observe and discuss
- Focus: Understanding capabilities/limitations

### Guided Practice (Weeks 5-8)

- Structured AI activities in class
- Clear parameters for use
- Focus: Developing critical evaluation

### Independent Application (Weeks 9-12)

- Students choose when/how to use AI
- Justify their decisions
- Focus: Strategic tool selection

### Synthesis (Final Weeks)

- Reflect on AI's role in learning
- Evaluate impact on understanding
- Focus: Meta-cognitive awareness

---

## Quick Implementation Ideas

### Monday: Lecture Prep

Use AI to generate example scenarios, verify for accuracy, share process with students

### Tuesday: Tutorial Planning

Create discussion questions with AI, add context-specific elements

#### Wednesday: Assignment Design

Draft rubric with AI, modify for course objectives

#### Thursday: Student Support

Use AI to create study guides, add personal expertise

#### Friday: Reflection

Document what worked, adjust for next week

---

## Addressing Common Concerns

**"Students will cheat"** → Design assessments that require personal insight, process documentation, or live demonstration

**"AI undermines learning"** → Focus on higher-order thinking: evaluation, synthesis, creation

**"I don't understand AI"** → Start small, learn alongside students, share your journey

**"It's not fair if some students use AI"** → Make AI use transparent and optional, provide alternatives

---

## Assessment Rubric Adaptation

#### Traditional Criteria → AI-Era Criteria

**Knowledge Display → Knowledge Application** - Can recite facts → Can verify AI facts - Memorised content → Contextualised understanding

**Writing Quality → Thinking Quality** - Grammar/spelling → Argument construction - Word count → Idea development

**Research Skills → Evaluation Skills** - Found sources → Assessed AI sources - Citation accuracy → Information verification

**Originality** → **Synthesis** - Unique phrasing → Unique connections - No plagiarism → Acknowledged AI use

---

## Red Flags vs Green Flags

### Red Flags (Need Intervention)

- Cannot explain their work
- Inconsistent voice/knowledge level
- Missing assignment-specific requirements
- No personal connection to content

### Green Flags (Good Practice)

- Clear about AI's role
- Shows iteration and improvement
- Demonstrates critical thinking
- Adds personal/local context

---

## Resources for Further Development

### Essential Reading

- Your institution's AI policy
- Discipline-specific AI guidelines
- Student feedback on AI use

### Try This Week

1. Generate one lecture example with AI
2. Share the process with students
3. Ask students about their AI use
4. Document one success or failure

### Build Community

- Share experiences with colleagues
- Create discipline-specific prompt library
- Develop shared assessment strategies

---

## Final Reminders

**You don't need to be an AI expert** — You need to be a learning expert

**Perfect is the enemy of good** — Small experiments are valuable

**Students are already using AI** — Better to guide than ignore

**Your expertise matters more, not less** — AI makes human judgment crucial

**Focus on learning outcomes** — Tools change, objectives remain

---

## Resources & References


- (Heaven, W. (2023, April 6). ChatGPT is going to change education, not destroy it. MIT Technology Review. Retrieved September 4 2025, from https://www.technologyreview.com/2023/04/06/10 is-going-to-change-education-not-destroy-it)[https://www.technologyreview.com/2023/04/06/1071059/cha change-not-destroy-education-openai/]
- (Sabzalieva, E., & Valentini, A. (2023). ChatGPT and artificial intelligence in higher education: Quick start guide. UNESCO International Institute for Higher Education in Latin America and the Caribbean (IESALC). https://unesdoc.unesco.org/ark:/48223/pf0000385146)[https
- (Russell Group. (2023). Russell Group principles on the use of generative AI tools in education. Russell Group. Retrieved September 4 2025, from https://www.russellgroup.ac.uk/policy/policy-briefings/principles-use-generative-ai-tools-education)[https://www.russellgroup.ac.uk/policy/policy-briefings/principles-use-generative-ai-tools-education]
- TEQSA on Generative AI


---

*Questions? Contact: michael.borck@curtin.edu.au*

*Version 1.0 - September 2025 | Part of the AI in Curriculum initiative*

*AI Acknowledgement: AI tools were used in the initial drafting and development of this document. All content has been reviewed, refined, and validated through human expertise and professional judgment.*