# AI Integration Planning Template

## Course Information

**Course Title:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Level:** ☐ First-year ☐ Sophomore ☐ Junior ☐ Senior ☐ Graduate

**Typical Enrollment:** \_\_\_\_\_\_\_\_ students

**Course Format:** ☐ Lecture ☐ Lab ☐ Project-based ☐ Hybrid ☐ Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Primary Challenges:** *What aspects of your course do students find most challenging or could benefit from AI support?*

## Current State Assessment

Map your course’s current position on each dimension of the AI Integration Taxonomy:

### Pedagogical Purpose Dimension

*Which purpose(s) would most benefit your course? (Check all that apply)*

☐ Conceptual Understanding: Explaining complex concepts, addressing misconceptions  
☐ Skill Development: Bypassing technical hurdles to focus on higher-order skills  
☐ Process Augmentation: Enhancing workflows and methodologies  
☐ Content Creation: Generating or transforming educational materials  
☐ Visualization: Helping students visualize complex phenomena

**Current approach to these purposes:**

### Integration Depth Dimension

*Where does your course currently sit on the integration spectrum?*

☐ No current AI integration  
☐ Supplemental Resource: Optional tools outside core instruction  
☐ Guided Integration: Structured prompts for specific activities  
☐ Embedded Practice: AI integrated throughout regular coursework  
☐ Transformative Redesign: Course restructured around AI capabilities

**Notes on current integration:**

### Student Agency Dimension

*How much choice do/would students have in using AI?*

☐ Instructor-Directed: Faculty provides specific prompts/tools for specific purposes  
☐ Scaffolded Autonomy: Progressive responsibility with structured guidance  
☐ Guided Exploration: Students experiment within boundaries and guidelines  
☐ Full Autonomy: Students make independent decisions about AI use

**Current approach to student agency:**

### Assessment Alignment Dimension

*How do/would you assess AI-integrated learning?*

☐ Process Documentation: Evaluating how students use AI in their workflow  
☐ Comparative Analysis: Assessing ability to evaluate AI outputs against alternatives  
☐ Critical Evaluation: Measuring how students verify and refine AI contributions  
☐ Meta-Learning: Assessing reflection on how AI affects learning  
☐ AI-Restricted Components: Maintaining some assessment without AI

**Current assessment approach:**

### Technical Implementation Dimension

*What aspects of technical implementation are most important for your context?*

☐ Tool Selection: Matching AI capabilities to learning objectives  
☐ Access Provision: Ensuring equitable student access  
☐ Prompt Engineering: Developing effective prompts  
☐ Error Management: Handling AI limitations  
☐ Integration Infrastructure: Technical platforms for delivery

**Current technical considerations:**

### Ethical & Professional Development Dimension

*Which ethical aspects are most relevant for your discipline?*

☐ Attribution Practices: Citation of AI contributions  
☐ Professional Norms: Alignment with industry practices  
☐ Critical AI Literacy: Understanding capabilities and limitations  
☐ Responsible Use: Ethical decision-making  
☐ Equity Considerations: Ensuring benefits reach all students

**Current ethical considerations:**

## Target Implementation Plan

### Priority Dimensions for Development

*Select 1-2 dimensions to focus on first:*

### Implementation Goals

**Short-term Goal (Next semester):**

**Longer-term Goal (1-2 years):**

### Specific Implementation Actions

### Resources Needed

☐ Technical support/training  
☐ Tool licenses/access  
☐ Sample prompts/activities  
☐ Assessment examples  
☐ Department/institutional support  
☐ Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### Potential Challenges and Mitigation Strategies

| Challenge | Mitigation Strategy |
| --- | --- |
|  |  |
|  |  |
|  |  |

## Action Plan Timeline

| Timeframe | Actions | Resources Needed |
| --- | --- | --- |
| Next month |  |  |
| Before next semester |  |  |
| Early next semester |  |  |
| Mid-semester |  |  |
| End of next semester |  |  |

## Alignment with Course/Program Outcomes

**How does this implementation align with or enhance your course learning outcomes?**

**How does this implementation prepare students for future courses or professional practice?**

## Reflection Questions

1. How will you measure the success of your implementation?
2. What support will students need to engage effectively with AI tools?
3. Which colleagues might collaborate with you on this implementation?
4. How might this implementation evolve over multiple semesters?

*This planning template was developed as part of the “Strategies for Integrating Generative AI in Engineering Education” workshop materials in collaboration with Claude-3.7 Sonnet.*