Teach &
Kids Learn

Course Title:	
AI: Enhancing Teaching and Learning with Artificial Intelligence	
Number of Content Modules: 4	**Grade Levels:** 5-12
Questions: 1-855-498-4400 PD@TeachnKidsLearn.com	**TKL Catalog:** https://teachingknowledgeloop.com/external-catalog

Course Description

The cutting-edge Enhancing Teaching and Learning with Artificial Intelligence (AI) course aims to revolutionize your teaching approach and enhance student learning through the support of artificial intelligence (AI).

This course will help you save time by redirecting hours previously spent on planning and administrative tasks to direct contact with students. With (AI) assistance, your lessons can be differentiated and personalized in seconds to meet individual student needs.

Discover safe, responsible, and ethical methods for students to use (AI) to support their learning, and equip them with the skills necessary to identify bias and address potential misinformation in (AI) outputs.

Learn how AI tools can help foster a classroom that genuinely ignites critical thinking, boosts learner engagement, and makes both teaching and learning enjoyable!

Educators will learn about instructional strategies and accommodations they can use to support students with the use of (AI) strategies in the classroom, including the use of visual aids, modifications to the learning environment, and incorporating hands-on and experiential learning activities.

Throughout the course, educators will have the opportunity to reflect on their teaching practices and develop a plan for effectively supporting students. The goal of the course is to empower educators to become confident and competent educators who can create inclusive and supportive learning environments for all students.

Course Objectives

CO.1 Develop a basic understanding of AI's evolution, including key definitions, how AI was created, and how it works. (Danielson Components: 3c, 4a, 4e)

CO.2 Identify key milestones and breakthroughs in the evolution of AI and identify its possible use in teaching and learning. (Danielson Components: 1c, 1d, 1e, 3c, 3e, 4a, 4e)

CO.3 Analyze the pros and cons of using AI technology in education and develop a plan for the safe and effective use of AI in the classroom. (Danielson Components: 1c, 1d, 1e, 3c, 4a, 4e)

CO.4 Create practical strategies to integrate AI tools into daily routines to automate tasks, enhance time management, and maximize educator productivity.(Danielson Components: 1a, 1e, 1f, 3c, 3e, 4a, 4e)

CO.5 Identify and explore AI tools that can enhance student engagement, encourage critical thinking and active learning, and provide personalized learning experiences for students. (Danielson Components: 1a, 1b, 1c, 1d, 1e, 1f, 2b, 3c, 3d, 3e,4a, 4e)

CO.6 Implement AI tools to enhance student learning through formal assessment, formative feedback, and personalized student feedback. (Danielson Components: 1b, 1f, 2b, 3a, 3c, 3e, 4a, 4e)

CO.7 Understand and explain the ethical issues associated with using AI and analyze ways to foster responsible academic use, promote active learning, and encourage critical thinking. (Danielson Components: 1a, 1b, 1e, 1e, 2b, 3b, 3c, 3d, 3e, 4a, 4e)

CO.8 Use instructional strategies to help students fact-check AI-generated content for accuracy and reliability. (Danielson Components: 1a, 1d, 2b, 3a, 3c, 4a, 4e)

CO.9 Create engaging lessons using AI tools to personalize and differentiate instruction to meet diverse learner needs. (Danielson Components:1a, 1b, 1c, 1d, 1e, 2b, 3a, 3c, 3d, 3e, 4a, 4c, 4e)

CO.10 Identify potential biases, ethical concerns, and privacy implications that may be present when using AI systems. (Danielson Components: 1a, 1d, 2a, 2b, 3a, 3c, 4a, 4e)

CO.11 Create lesson plans and classroom policies to educate students on the responsible and effective use of AI tools to strengthen student agency and enhance, not supplant, learning. (Danielson Components: 1a, 1b, 1d, 1e, 2b, 2c, 3a, 3c, 3e, 4a, 4c, 4e)

Course Outline

Course Introduction Module	
Course available completely online (24/7 and Self-Paced	Assignments due by the end of the term.
Module Topics	

In this module, you will learn about the course set-up, expectations for learning and collaborating, meet your colleagues, and reflect on your prior knowledge about teaching with artificial intelligence.

- Course Methodology & Navigation
- Course Description
- A Transformative Approach to Education
- Expectations and Community Agreements for Engaging in Brave Dialogue
- Community Building Circle: Course Story
- Course Objectives

Module 1: The Evolution of AI and Its Use in Education
Module Topics

In this module, you will develop a basic understanding of artificial intelligence (AI), including what it is, how it was developed, how it works, and the pros and cons of using AI in teaching and learning. You will also learn about several AI tools and how to design effective prompts.

Section 1: The Development of Artificial Intelligence (AI) Tools
- How Much Do You Know About AI?
- The Evolution of Artificial Intelligence
- What is Generative AI?
- Chatbots Ready and Willing to Chat
- The Pros and Cons of Generative AI
- Show What You Know

Section 2: Learning to Use Generative AI with Prompt Development
- Protecting Student Privacy
- The Tools of the Trade
- Asking the Bots
- Creating Prompts That Get Results
- Designing Your Own Prompts

Module 2: Using AI to Increase Teacher Efficiency and Effectiveness

Module Topics

In this module, you will explore ways that AI-based tools can assist teachers with planning and increase productivity. You will also learn how AI-based tools can be used to design assessments and collect student feedback.

Section 1: Using AI to Increase Teacher Productivity
- Examining Teacher Use of AI for Teaching and Learning
- Curriculum Mapping
- AI Helps Unpack and Customize Our Standards
- Generating Content to Enhance Teaching
- Generating Content
- Meeting Student Needs with Improved Lessons
- Creating Deeper Learning
- Using AI-Powered Tools for Assessment and Student Feedback
- Measuring the Three Levels of Learning

Section 2: Learning to Use Generative AI with Prompt Development
- Improving Reading for Students Who Need Support
- Solving the Language Barrier with AI
- Improving School Communications
- Increasing Engagement with AI-Based Activities
- Image Creation with AI
- Using Generative AI to Meet Student Needs

Module 3: Using AI to Increase Teacher Efficiency and Effectiveness

Module Topics

In this module, you will identify and explore AI tools that can enhance student engagement, encourage critical thinking, provide personalized learning, and help students fact-check AI-generated content for accuracy and reliability.

Section 1: Deepening Thinking and Improving Student Learning with AI
- Using AI to Improve Student Writing
- Using a Chatbot's Conversational Strengths
- Deepening Student Learning Through Images
- Creating Images for Teaching and Learning
- Making Learning Meaningful
- Using AI to Deepen Critical Thinking

Section 2: Identifying AI-Based Educational Tools for Student Use
- Generative AI-Based Tools for Student Use
- Engaging Students in Discussion and Collaborative Learning
- Personalizing Learning with Technology
- Feedback and Assessment Tools
- Creating Opportunities for Feedback and Assessment
- Deepening Student Learning with AI

Module 4: Promoting the Safe, Responsible, and Ethical Use of AI for Learning

Module Topics

In this module, you will understand the ethical issues, such as algorithmic bias surrounding AI use, and analyze ways to foster responsible academic use and promote critical thinking. You will also create classroom policies that educate students on the responsible use of AI.

Section 1: Understanding Bias and Prejudice in Artificial Intelligence
- Checking AI Output for Bias, Prejudice, and Discrimination
- AI Bias is Alive and Well
- Facial Recognition and Deep Fakes
- Concerns About Using AI in the Classroom
- Confirmation Bias and Misinformation
- Show What You Know - Ethics and AI

Section 2: Encouraging Students to Use Artificial Intelligence Safely and Responsibly
- Using AI Responsibly for Learning
- Honoring Copyright
- Fact-Checking AI Content
- Using Lateral Reading for Fact-Checking
- Applying Lateral Reading to Verify Information
- Staying Safe Online
- Creating Classroom Policies for AI Use
- Evaluating AI Use in Schools