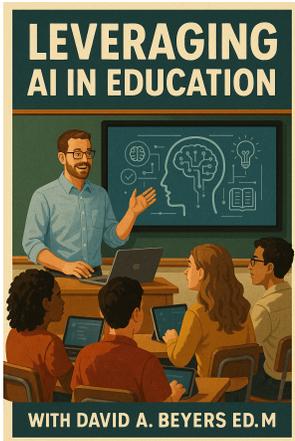# Leveraging AI for Education

ED 500
3 credits
Grade Type: Pass/Fail *(Grade B equivalent, ≥80% mandatory for Pass)*

Instructor:
David Beyers MaEd.
DBeyers@teacherslearningcenter.com

Contact Hours: This is a 3 credit hour course which requires 45   hours of contact time.

Registration and Course Delivery Process:

Educators will preview and order a course at the Teachers Learning Center's website www.teacherslearningcenter.com. They receive a course confirmation receipt email that contains the CSUP registration form or link, course Syllabus assignments, Instructions and Evaluation docs. The TLC-CSUP Procedures document explains the process and instructions for taking TLC courses as well as CSUP Registration procedures and policies.

Teachers are encouraged to ask questions by email and/or to call the instructor. They are also encouraged to discuss course content with friends, colleagues, teachers in their school and professional learning community (PLC), as well as with the TLC instructor.

After the assignments are completed, educators will email them in an attachment to the instructor. The assignments are read and graded according to rubrics by the instructor, who will discuss any adjustments or improvements that need to be made by students. Only one coursework revision opportunity will be granted and a final grade will be posted on the 2nd submission. Student may then order a transcript per instructions.

Course Evaluation Process:

Evaluation forms are emailed to the students when they register for a course and when they receive a Course Completion email and transcripts ordering doc. They can send the completed course evaluation electronically or by US mail to TLC without a return address on the envelope for anonymity. Evaluations will be emailed or sent to CSUP annually.

Catalog Description: ED 500: Professional development for teachers. Each has a subtitle describing the specific content. Does not count for M.Ed. credit.

Course Title: Leveraging AI in Education

Credit Hours: Credit Hours: This three-credit ED 500 course uses a face-to face/hybrid/synchronous online/asynchronous online, format and will require a total of 45 hours of student effort as shown in the Course Requirements section of this syllabus.

Course Format: Asynchronous Online. Students may work through the material at their own pace, but some assessments may have posted due dates or forced sequencing. The instructor will monitor all

Instructor Name & Contact Information: David Beyers | david@gfspd.com | (989) 350-3040

Course Description: The goal of this course is to equip educators with a comprehensive understanding of artificial intelligence and its applications in education. Participants will explore foundational concepts in AI, including types of AI, its evolution, and its impact on teaching and learning. They will examine AI's potential for enhancing instruction, assessment, and personalized learning, while also discussing key considerations such as ethics, bias, and equitable access. As the course progresses, participants will dive into practical aspects of AI literacy for both teachers and students, AI's role in lesson design, and the development of effective classroom policies. In a final reflection, participants will reflect on their current practices, evaluate their effectiveness in creating a positive classroom culture, and identify areas for growth..

Required Text(s) and Other Materials: None

Course Objectives: At the conclusion of this course, students will be able to:
●   Identify the key components, historical milestones, and potential future impact of generative artificial intelligence on education.
●   Explore the cultural, socio-economic, and societal implications of generative artificial intelligence use.
●   Assess the potential of generative artificial intelligence as a tool for teaching, learning, and assessment.
●   Outline policies to govern the use of generative artificial intelligence in their classrooms, schools, and districts.

STUDENT LEARNING OUTCOMES (SLOs):

This course addresses the following student learning outcomes to the degree shown in the table.
Degree Addressed is rated according to the following scale:
1=Basic, 2=Developing, 3=Proficient, 4=Advanced

Student Learning Outcome	Degree Addressed
1. Demonstrate growth in content knowledge related to teaching assignment and the application of content knowledge to classroom instruction and assessment.	3
2. Understand scientifically-based practices in teaching and learning, including strategies in literacy education, instructional technology, differentiation of instruction,	2

and apply them to raise student achievement.	
3. Demonstrate multiple means of assessing and evaluating student learning and use them to change teaching and learning.	2
4. Locate, interpret, synthesize, and apply educational research in best practices in teaching.	2
5. Understand models for professional change, including teacher collaboration, professional learning communities, strategies for mentoring and coaching to facilitate change, and effective professional development.	1
6. Demonstrate understanding of reflective practice that results in improved classroom teaching and learning, including teacher reflection, use of technology in self-assessment, collaboration for change, and self-management of change.	2

7. Demonstrate understanding of system and organizational change in education, including models for school change and current research and trends in school change.	1
8. Demonstrate responsibility for student learning at high levels.	3
9. Demonstrate responsibility for school reform and leadership in school change.	1

Course Requirements:

Requirement	Points	Student Effort (hours)
Module 1-4 Reading & Videos (12 topics)		16
Discussion Board Posts (4)	40	12
Authentic Assessment Activities (4)	80	15
Final Reflection	20	2
TOTAL	140	45

Attendance/Participation:
In order to be in attendance during the week, you must post at least one message to the weekly thread on the discussion board by Thursday night of each week. Messages such as "I agree" or "Good job" do not qualify as substantive. I am looking for messages which further develop the content of discussion.

Term Dates:
Enrollment periods will appear on the student transcript. Thus, enroll in the term that you wish to see on your transcript. Term dates are as follows for each year.

Spring- January 2nd-May 15th Summer-
May 16th-September 15th Fall –
September 16th -December 31st

Grading:

Percentage	Grade Level	GPA
100% to 94%	A	4.0

Percentage	Grade Level	GPA
93% to 90%	A-	3.7
89% to 87%	B+	3.3
86% to 84%	B	3.0
83% to 80%	B-	2.7
79% to 77%	C+	2.3
76% to 70%	C	2.0
69% to 67%	D+	1.3
66% to 64%	D	1.0
63% to 60%	D-	0.7
59% and below	F	0.0

Rubrics:

Discussions (10 points/each):

Criteria	Emerging	Competent	Proficient
Initial Post (5 pts)	Initial post fails to address all of the required prompts. 0-2 points	Initial post addresses all of the required prompts. Application of course content is sufficient. 3-4 points	Initial post clearly and fully addresses all of the required prompts. Demonstrates thoughtful application of course content. 5 points
Responses (5 pts)	Responses to classmates are missing or insufficient. 0-2 points	Responses to classmates are sufficient. 3-4 point	Responses to classmates seek to further the discussion in meaningful ways. 5 points

Teaching and Learning in the Age of AI (20 points):

Criteria	Does Not Meet Expectations	Approaching Expectations	Meets Expectations	Exceeds Expectations

Predictions: AI's Impact on Teaching & Learning	Responses are vague, lack depth, or fail to address key aspects of AI's impact on teaching and learning. 0-2 points	Identifies some potential impacts of AI but lacks depth, connections, or specific examples. 3 points	Clearly identifies multiple ways AI may impact teaching and learning, providing relevant examples and thoughtful analysis. 4 points	Provides a highly insightful and comprehensive discussion of AI's impact on teaching and learning, incorporating nuanced perspectives and well-supported predictions. 5 points
Analysis: Positive & Negative Aspects of AI Integration	Fails to consider both positive and negative effects or provides superficial discussion. 0-2 points	Acknowledges positive and negative aspects but lacks balanced analysis or depth. 3 points	Thoughtfully evaluates both positive and negative impacts, providing clear reasoning and examples. 4 points	Offers a sophisticated analysis of AI's benefits and challenges, with well-supported arguments and consideration of broader implications. 5 points
Next Steps: Preparation & Adaptation for AI in Education	Does not propose meaningful next steps or lacks clarity in suggestions. 0-2 points	Suggests some steps but lacks specificity or connection to identified impacts. 3 points	Proposes clear and relevant steps to prepare for AI's role in education, demonstrating an understanding of its implications. 4 points	Provides a well-developed, strategic approach to preparation, incorporating innovative and forward-thinking solutions. 5 points
Clarity & Depth of Explanation	Writing lacks clarity, organization, or sufficient detail to effectively convey ideas.	Ideas are somewhat organized but may lack depth or clear connections between points.	Writing is clear, well-organized, and sufficiently detailed to support ideas effectively. 4 points	Writing is exceptionally clear, well-structured, and provides deep, critical insights that enhance understanding.

	0-2 points	3 points		5 points

AI Challenges and Opportunities (20 points)

Criteria	Does Not Meet Expectations	Approaching Expectations	Meets Expectations	Exceeds Expectations
Instruction: Adapting Lesson Planning & Design for AI	Provides little to no discussion of how lesson planning might be adjusted for AI. Responses are vague or off-topic. 0-2 points	Identifies some ways to adjust lesson planning but lacks depth, clear connections, or concrete examples. 3 points	Thoughtfully explains how lesson planning can be adapted for AI, providing relevant examples and connections to current practices. 4 points	Offers a comprehensive and innovative approach to lesson planning with AI, demonstrating deep insight and forward-thinking strategies. 5 points
Evaluation: Benefits & Challenges of AI in Instruction	Fails to consider both benefits and challenges, or discussion is superficial. 0-2 points	Acknowledges benefits and challenges but lacks balance, specificity, or real-world connections. 3 points	Clearly evaluates both benefits and potential unintended consequences, providing well-reasoned arguments and examples. 4 points	Provides a nuanced analysis of AI's role in instruction, incorporating real-world implications, ethical considerations, and creative solutions to challenges. 5 points
Assessment: Rethinking & Designing Authentic Assessment in the AI Era	Provides little or no discussion on AI's impact on assessment or fails to offer relevant suggestions. 0-2 points	Identifies some impacts of AI on assessment but lacks depth, clear reasoning, or practical application. 3 points	Thoughtfully considers how AI changes assessment design, providing clear, relevant examples and well-supported arguments. 4 points	Offers a deep and strategic approach to assessment in the AI era, incorporating innovative solutions and demonstrating a clear understanding of authenticity in assessment.

				5 points
Clarity & Depth of Explanatio n	Writing lacks clarity, organization, or sufficient detail to effectively convey ideas.

0-2 points | Ideas are somewhat organized but may lack depth, clarity, or clear connections between points.

3 points | Writing is clear, well-structured, and sufficiently detailed to support ideas effectively.

4 points | Writing is exceptionally clear, well-structured, and provides deep, critical insights that enhance understanding and engagement.

5 points |

An AI-Enabled Lesson Plan (20 points):

Criteri a	Does Not Meet Expectations	Approaching Expectations	Meets Expectations	Exceeds Expectations
Step 1: Lesson Outline	Lesson outline lacks sufficient detail; key components (objectives, materials, steps) are missing or unclear.

0-2 points | Lesson outline includes most components but lacks full detail or clarity in objectives or steps.

3 points | Lesson outline is complete with clear objectives, materials, steps, and assessments

4 points | Lesson outline is thorough and detailed, with clearly articulated objectives, steps, and assessments.

5 points |
| **Step 2: AI as a Design Tool** | Limited or vague description of AI suggestions; lacks consideration of AI-generated content.

0-2 points | Describes some AI suggestions and generated content but provides limited reflection on potential use.

3 points | Describes AI suggestions and generated content clearly; considers implementation thoughtfully.

4 points | Provides detailed analysis of AI suggestions and content, with insightful reflection on potential use.

5 points |
| **Step 3: Student Use of AI** | Minimal or unclear description of AI use for students; lacks consideration of access or safety.

0-2 points | Describes a basic opportunity for student use of AI but lacks detail in access or safety considerations.

3 points | Provides a thoughtful plan for student AI use, with consideration of access and safety.

4 points | Clearly outlines student AI use, with comprehensive and realistic plans for access and safety management.

5 points |

| Step 4: Reflection | Reflection lacks depth; minimal insight into the impact of AI on lesson design or student experience.

0-2 points | Provides some reflection on AI's impact but lacks a nuanced understanding of key concepts.

3 points | Reflects thoughtfully on AI's impact, considering both positive and negative effects on lesson design.

4 points | Provides an in-depth reflection on AI's impact, including thoughtful insights that demonstrate considerations of all key concepts.

5 points |
|---|---|---|---|---|

AI Action Plan (20 points)

Criteria	Does Not Meet Expectations	Approaching Expectations	Meets Expectations	Exceeds Expectations
Step 1: AI Literacy	Provides minimal or unclear description of AI literacy importance; lacks specific steps for staying current or promoting AI literacy among students.

0-1 points | Partially describes AI literacy's importance with some steps for staying current; limited student-focused strategies for best practices.

2 points | Clearly describes the importance of AI literacy with specific steps for staying updated and promoting student AI literacy.

3 points | Provides a thorough, forward-thinking approach to AI literacy, with actionable steps for staying current and fostering best practices.

4 points |
| Step 2: AI for Teaching & Assessment | Lacks a clear plan for AI use in teaching and assessment; minimal or no discussion of academic integrity and safeguards.

0-1 points | Provides some ideas on AI use in teaching and assessment; limited depth in addressing academic integrity or safeguards.

2 points | Describes a thoughtful plan for using AI in teaching and assessment, with consideration of academic integrity and safeguards.

3 points | Offers a comprehensive, well-justified approach to using AI in teaching and assessment, with proactive measures for integrity and safety.

4 points |
| Step 3: AI for Students | Provides minimal or unclear guidance on student AI use; limited or no consideration of access, safety, or equity issues.

0-1 points | Outlines a basic framework for student AI use, but lacks depth in addressing access, safety, or equity concerns. | Thoughtfully describes when and how students may use AI, with consideration for access, safety, and equity.

3 points | Offers an in-depth, student-centered approach to AI use, with clear strategies for access, safety, and promoting equity. |

				4 points
Step 4: AI Policy & Advocacy	Draft policy statement is unclear, lacking connection to teaching philosophy or broader district/community context; minimal or vague approach to advocacy. 0-1 points	Policy statement is basic, with limited connection to teaching philosophy or community context; advocacy approach lacks depth. 2 points	Drafts a clear policy aligned with teaching philosophy and district/community context; provides a thoughtful approach to advocacy. 3 points	Creates a well-defined, contextually relevant policy that aligns with teaching philosophy and anticipates effective advocacy with stakeholders. 4 points
Step 5: Reflection	Reflection lacks depth or specificity. 0-1 points	Reflection provides some insights but lacks depth 2 points	Thoughtfully reflects on their plan's potential impact 3 points	Provides a deeply reflective analysis, thoughtfully exploring their plan's potential impact 4 points

Reflection (20 points)

Criteria	Emerging	Competent	Proficient
Organization & Formatting (10 pts)	Questions are just randomly placed with no logical order. 3 or more errors in formatting 0-5 points	Reflection is smooth and placed in order. 1-2 errors 6-8 points	Logical progression of the theme throughout delivering a seamless response to all criteria. No errors 9-10 points
Question Responses (10 pts)	Minimal response to question criteria. 0-5 points	Criteria covered. 6-8 points	Descriptive detail justifying the response to all questions. 9-10 points

Late Work:
An assignment is late if it is not turned in at the place, date, and time established by the professor. All assignments turned in late will result in a reduction of 20% of possible points for each day late. The professor understands that at times there are extraordinary circumstances that occur and should be taken into consideration. These circumstances must be shared with the professor before the due date (and not the night before) in order for any extension to be given.

Incomplete Grades: Incomplete Grades will be handled according to the University Catalog. If an incomplete grade is issued, the student, instructor, and Associate Dean will develop an agreement for the terms of the incomplete and sign it.

Student Conduct: Students are required to follow the policies set within the Student Code of Conduct at CSU Pueblo. This Code can be found on the Student Affairs website at https://www.csupueblo.edu/student-affairs/student-conduct/index.html. Students with question regarding any guidelines within the Code should contact the Director of Student Conduct and Case Management at 719-549-2092.

Accommodations: https://www.csupueblo.edu/disability-resource-and-support-center/faculty-staff-resources.html. If you have a documented disability that may impact your work in this class and for which you may require accommodations, please see the Disability Resource & Support Center (DRSC) as soon as possible to arrange services. The DRSC is located in OSC 201 and can be reached by phone (719-549-2648) and email (csup_dro@csupueblo.edu).

Academic Dishonesty: Academic dishonesty is any form of cheating that results in students giving or receiving unauthorized assistance in an academic exercise or receiving credit for work which is not their own. In cases of academic dishonesty, the instructor will follow protocol as identified by their department. Academic dishonesty is grounds for disciplinary action by both the instructor and the Director of Student Conduct and Community Standards. Any student found to have engaged in academic dishonesty may receive a failing grade for the work in question, a failing grade for the course, or any other lesser penalty which the instructor finds appropriate. To dispute an accusation of academic dishonesty, the student should first consult with the instructor. If the dispute remains unresolved, the student may then state their case to the department chair (or the dean if the department chair is the instructor of the course). A student may appeal a grade through the Academic Appeals Board, if eligible.

Academic dishonesty is a behavioral issue as well as an issue of academic performance. As such, it is considered an act of misconduct and is also subject to the University conduct process as defined in the CSU Pueblo Student Code of Conduct. Whether or not disciplinary action has been implemented by the faculty, a report of the infraction should be submitted to the Office of Student Conduct & Community Standards who may initiate additional disciplinary action. The decision by the Office of Student Conduct & Community Standards may be appealed through the process outlined in the Student Code of Conduct.

See **Syllabus Reference Sheet** for full details on the following and more:

Academic Misconduct: Academic misconduct is any form of cheating that results in students giving or receiving unauthorized assistance in an academic exercise or receiving credit for work which is not their own. Academic misconduct is a behavioral issue as well as an issue of academic performance and therefore grounds for disciplinary action by both the instructor and the Director of Student Conduct and Community Standards.

Institutional Equity Statement
CSU Pueblo is committed to equal educational and employment opportunities and to the elimination of all forms of Discrimination, Protected Class Harassment, and Retaliation. Any campus community member in need of support, resources, or guidance is welcome to contact the Office of Institutional Equity and Title IX Coordinator via email at nicole.ferguson@csupueblo.edu, by phone at 719-549- 2210, or in person at LARC 187.

Course Communication
All course communication should be directed to:

Instructor: David Beyers MaEd.
E-mail: Dbeyers@teacherslearningcenter.com